

"Restricted (International Atomic Energy Agency)"

REVIEW OF THE NEGOTIATING HISTORY OF THE
IAEA SAFEGUARDS DOCUMENT INFCIRC/153
VOLUME II: CHAPTER 4.0

Final Report

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4.0 PARAGRAPH-BY-PARAGRAPH HISTORY OF INFCIRC/153

In this section of the report, the evolution of the major paragraphs of INFCIRC/153 is traced via a compilation of citations from the IAEA records of the negotiations. For ease of reference, the final formulation of each paragraph or group of paragraphs is presented first followed by the initial proposal which most closely corresponds to the particular paragraph. Thereafter, a number of the principal comments and amendments proposed by the participating delegations are provided. This section differs from Section 3.0 in that it presents the development of each paragraph of INFCIRC/153 much more completely than in Section 3.0, but without the identification and analysis of issues which are the main interest of Section 3.0.

Throughout this section as in the preceding sections, the series GOV/COM 22/OR____ will be cited simply as OR____, with the series paragraph number preceding the designation OR____. Similarly, the series GOV/COM 22/____ will be designated Doc____, with the paragraph number, if required, preceding the designation. It is important to keep in mind that the OR Series are summary documents and do not necessarily contain direct quotes of the participating delegations. Moreover, the ORs do not reflect the negotiations that often took place between certain delegations on particularly difficult issues.

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PART I

INFCIRC/153 Paragraph 1

BASIC UNDERTAKING

1. The Agreement should contain, in accordance with Article III.1 of the Treaty on the Non-Proliferation of Nuclear Weapons, an undertaking by the State to accept safeguards, in accordance with the terms of the Agreement, on all source or special fissionable material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices.

1 Doc 3

BASIC UNDERTAKING

The Agreement should contain an undertaking that nuclear material within the State's territory, under its jurisdiction or under its control anywhere, shall not be diverted from peaceful uses to nuclear weapons or other nuclear explosive devices.

1.A Doc 3

IAEA: "The Agreement should constitute a self-contained legal instrument, since the Agency is not a Party to NPT. The inclusion of such an undertaking in the Agreement with the Agency could not be interpreted as altering any of the broader obligations which the State has undertaken under NPT in relation to other Parties to NPT."

Doc 9 U.K. Proposal

"The Agreement should contain an undertaking by the State to accept safeguards, in accordance with the terms of the Agreement, on all source or special fissionable material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices."

5 OR 6

Japan: "...it might be advisable to repeat [the State's] obligation to [submit a request the Agency in order to start the negotiation] in the text of the safeguards agreement."

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6 OR 6

U.K.: "The main thing [is] not a request addressed to the Agency but the acceptance of safeguards by the State concerned."

11 OR 6

Romania: "[A] preamble should outline the legal framework of the agreement and mention its sources, namely NPT, the Agency's Statute and safeguards system, and also the Charter of the United Nations..."

12 OR 6

U.S.S.R.: "The Agreement should contain an undertaking by the State to accept safeguards under NPT in accordance with the terms of the Agreement and in conformity with the Statute of the International Atomic Energy Agency and its safeguards system."

1.C Doc 3

IAEA: "...the deliberate failure by the State to inform the Agency of nuclear material in peaceful nuclear activities might also be considered to imply diversion."

1 Doc 8

South Africa: "...'nuclear material'...relates to the material notified in the 'initial report'...and to nuclear material notified by the State concerned in subsequent reports and material derived therefrom."

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2 Doc 8

"...safeguarding and inspection functions of the Agency, subject to whatever other provisions are contained in the Agreement, shall be concerned solely with the material reported upon by the State concerned to the Agency in the initial and subsequent reports and material derived therefrom."

22 OR 6

Hungary: Disagreeing with South Africa on the safeguards and inspections functions of the Agency, noted "...the State [is] obliged to declare in its reports all nuclear materials used in its peaceful nuclear activities; by failing to list any of those materials it would violate its undertakings..."

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19 OR 7

U.K.: Introduced compromise agreement with the Soviet Union that text of Doc 9 should be amended to read: "The Agreement should contain, in accordance with Article III.1 of NPT, an undertaking..." "More than a minimum of phraseology taken from Article III of NPT would lead to difficulties."

22 OR 7

U.S.S.R.: "...[This language] met the minimum requirements of the Soviet delegation, which had agreed to it with some reluctance."

32 OR 7

"...the Committee approved the formulation of Section 1..."

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INFCIRC/153 Paragraph 2

APPLICATION OF SAFEGUARDS

2. The Agreement should provide for the Agency's right and obligation to ensure that safeguards will be applied, in accordance with the terms of the Agreement, on all source or special fissionable material in all peaceful nuclear activities within the territory of the State, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices.

2 Doc 3

APPLICATION OF SAFEGUARDS

The Agreement should provide for the Agency's right and obligation to apply safeguards in accordance with the terms of the Agreement to all nuclear material in all peaceful nuclear activities within the territory of the State, under its jurisdiction, or carried out under its control anywhere, with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear devices.

Doc 10 Belgium Proposal

The Agreement should provide for the Agency's right and obligation to ensure that safeguards will be applied in accordance with the terms of the Agreement for the purpose specified in Section 1.

2 Doc 18 Australia Proposal

The Agreement should provide for the Agency's right and obligation to apply safeguards, in accordance with the terms of the Agreement, for the exclusive purpose of verifying that no source or special fissionable material in any peaceful nuclear activity within the State's territory, under its jurisdiction or carried out under its control anywhere, is diverted to nuclear weapons or other nuclear explosive devices.

12 OR 7

Australia: "...the Agency's right and obligation should be limited to verifying that a diversion had not taken place; only a State could prevent such diversion."

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13 OR 7

"...a statement [should be avoided] to the effect that safeguards would apply to all source material when that might not be strictly true of source material as defined in the [IAEA] Statute."

20 OR 7

U.K.: "...Article III.1 [NPT] provided in its last sentence for application of safeguards to all source and special fissionable material..."

23 OR 7

U.S.: "...opposed to the exemption of source material from safeguards..."

33 OR 7

U.S.: "... 'for the purpose specified in Section 1' [Belgian proposal] should be replaced by... 'on all source or special fissionable material in all peaceful nuclear activities within ([the]) territory ([of the State]) under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices.'"

Doc 3

IAEA: "...In connection with the geographical scope of safeguards it appears particularly desirable to arrive at an agreed interpretation of the term 'control'. This term would imply that the State is in a position to apply its legislation or administrative procedures so as to determine the use and disposition of nuclear material. Mere financial participation by the state or its nationals in an enterprise outside the State's territory would not mean, however, that the activity is carried out under the State's control."

35 OR 7

Japan: "...an agreed interpretation of the term 'control'... should be incorporated in agreements in the form of a definition clause...."

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INFCIRC/153 Paragraph 3

CO-OPERATION BETWEEN THE AGENCY AND THE STATE

3. The Agreement should provide that the Agency and the State shall cooperate to facilitate the implementation of the safeguards provided for therein.

5(d) Doc 3

OTHER MEASURES

The State should facilitate the implementation of safeguards by the Agency and should agree to co-operate with the Agency to that end.

11 OR 7

Romania: "...introduce at an earlier stage the concept -- contained at present in Section 5(d) -- of co-operation between the Agency and the states."

38 OR 8

Romania: "...the State and the Agency should cooperate with each other with a view to facilitating the application of safeguards."

1 OR 11

IAEA: "...the State and the Agency shall co-operate to facilitate the implementation of safeguards provided for in the Agreement."

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INFCIRC/153 Paragraphs 4-6

IMPLEMENTATION OF SAFEGUARDS

4. The Agreement should provide that safeguards shall be implemented in a manner designed:

(a) To avoid hampering the economic and technological development of the State or international co-operation in the field of peaceful nuclear activities, including international exchange of nuclear material.

(b) To avoid undue interference in the State's peaceful nuclear activities, and in particular in the operation to facilities; and

(c) To be consistent with prudent management practices required for the economic and safe conduct of nuclear activities.

5. The Agreement should provide that the Agency shall take every precaution to protect commercial and industrial secrets and other confidential information coming to its knowledge in the implementation of the Agreement. The Agency shall not publish or communicate to any State, organization or person any information obtained by it in connection with the implementation of the Agreement, except that specific information relating to such implementation in the State may be given to the Board of Governors and to such Agency staff members as require such knowledge by reason of their official duties in connection with safeguards, but only to the extent necessary for the Agency to fulfil its responsibilities in implementing the Agreement. Summarized information on nuclear material being safeguarded by the Agency under the Agreement may be published upon decision of the Board if the State directly concerned agrees.

6. The Agreement should provide that in implementing safeguards pursuant thereto the Agency shall take full account of technological developments in the field of safeguards, and shall make every effort to ensure optimum cost-effectiveness and the application of the principle of safeguarding effectively the flow of nuclear material subject to safeguards under the Agreement by use of instruments and other techniques at certain strategic points to the extent that present or future technology permits. In order to ensure optimum cost-effectiveness, use should be made, for example, of such means as:

(a) Containment as a means of defining material balance areas for accounting purposes;

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(b) Statistical techniques and random sampling in evaluating the flow of nuclear material; and

(c) Concentration of verification procedures on those stages in the nuclear fuel cycle involving the production, processing, use of storage of nuclear material from which nuclear weapons or other nuclear explosive devices could readily be made, and minimization of verification procedures in respect to other nuclear material, on condition that this does not hamper the Agency in applying safeguards under the Agreement.

3-4 Doc 3

3. Non-interference with economic or technological development of the State and the protection of commercial and industrial secrets.

The Agreement should provide that the Agency is required to implement safeguards in a manner designed to avoid hampering the economic or technological development of the State or international co-operation in the field of peaceful nuclear activities and that the Agency is to take every precaution to protect commercial and industrial secrets and other confidential information coming to its knowledge in the implementation of this Agreement.

4. Technological developments of safeguards

The Agreement should provide that the state and the Agency take account, in the implementation of safeguards pursuant to this Agreement, of technological developments which increase the effectiveness of safeguards including, in particular, developments pertaining to the principle of safeguarding effectively the flow of nuclear material by use of instruments and other techniques at certain strategic points.

3.B Doc 3

IAEA: "The Agency's obligation to protect commercial and industrial information and not to communicate or publish information obtained by it in connection with the application of safeguards is provided for in paragraphs 13 and 14 of the Safeguards Document [INFCIRC/66], and those paragraphs should be incorporated, together with the other relevant parts of that document, in Part II of this agreement."

25 OR 6

F.R.G.: "...The principles governing the application of safeguards should be very clearly defined..."

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Doc 11 F.R.G. Proposal

3(a) The Agreement should provide that the Agency is required to implement safeguards in a manner designed

- to avoid hampering the economic and technological development of the State or international cooperation in the field of peaceful nuclear activities, including international exchange of nuclear material;
- to be in accordance with the principle of safeguarding effectively the flow of source and special fissionable material by use of instruments and other techniques at certain strategic points to the extent that present or future technology permits;
- to avoid undue interference with the construction and the operation of facilities;
- to be consistent with prudent management practices required for the economic and safe conduct of nuclear activities; and
- to ensure maximum possible cost effectiveness.

3(b) The Agency shall be required to take every precaution to protect commercial and industrial secrets and other confidential information coming to its knowledge in the implementation of the Agreement. It shall not publish or communicate to any State, organization or person any information obtained by it in connection with the implementation of the Agreement, except that specific information relating to such implementation in a State may be given to the Board of Governors and to such Agency staff members as require such knowledge by reason of their official duties in connection with safeguards, but only to the extent necessary for the Agency to fulfil its responsibilities in implementing the Agreement.

3(c) A failure by the Agency to meet its obligations with regard to non-interference with the construction and operation of facilities and the protection of commercial and industrial secrets and other confidential information coming to its knowledge in the implementation of the Agreement, shall entitle the State to compensation.

27 OR 6

U.K.: "...[Divide Section 3 [Doc 3] into two parts, the first of which would set forth the general principles embodied in paragraphs 9 and 10 of the Safeguards Document [INFCIRC/66], while

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the second part would deal with the protection of commercial and industrial secrets on the basis of the provisions of paragraph 13 and paragraph 14(a) of the Document.]"

38 OR 7

F.R.G.: "If...a satisfactory formulation were found for [Subsection 9(b) of Doc 3] it might be possible for [F.R.G.] delegation to drop its proposal for a Subsection 3(c).

40 OR 7

Japan: "...the principle of cost effectiveness should be spelt out in greater detail..."

Doc 14 Japan Proposal

- to ensure the optimum cost-effectiveness through such means as:
 - (a) Use of containment as a means of defining material balance areas for accounting purposes; and
 - (b) Use of statistical techniques and random sampling in evaluating the flow of nuclear material.

42 OR 7 Belgium Proposal

"The Agreement should provide that safeguards should be implemented in a manner designed."

48 OR 7

U.K.: Suggests amending in language of Subparagraph 3 of 3(a) in [Doc 11] to make it "more comprehensive": to avoid undue interference in the State's peaceful nuclear activities, and in particular in the operation of facilities."

49 OR 7

U.S.S.R.: "...the principle referred to in the second subparagraph [of the F.R.G. proposal in [Doc 11] was more relevant to Section 4; that also applied to the fifth subparagraph..." "...the Japanese proposal [Doc 14]...was more relevant to Part II of agreements."

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1 OR 9

F.R.G.: "...the titles of Section 3 [Doc 11, Non-interference with economic or technological development of the State and The protection of commercial and industrial secrets] and Section 4 [Technological developments of safeguards] be omitted. Secondly [F.R.G.] proposed that the second and fifth sentences [of Sub-paragraph 3a in Doc 11] be disregarded..."

3 Doc 31 F.R.G. Proposal

In the implementation of safeguards pursuant to the Agreement the Agency shall take full account of technological developments in the field of safeguards, and shall make every effort to ensure optimum cost-effectiveness and the application of the principle of safeguarding effectively the flow of source and special fissionable material by use of instruments and other techniques at certain strategic points to the extent that present or future technology permits.

4 Doc 32 Japan Proposal for Addition to the New Section

"In order to ensure the optimum cost-effectiveness, use should be made, for example, of such means as:

- (a) Containment as a means of defining material balance areas for accounting purposes; and
- (b) Statistical techniques and random sampling in evaluating the flow of nuclear material."

7 OR 9

Australia: "...[To] be effective, economical, unintrusive and widely acceptable to States...safeguards should not be applied to the extent contemplated at the present time, so early in the fuel cycle..."

Doc 28 Australia Proposal for Addition to 3(a)

- to minimize verification procedures in respect of those nuclear materials below degrees of enrichment, as laid down in Part II, at which the manufacture of a nuclear weapon or nuclear explosive device would be possible, and to concentrate verification procedures on those stages in the fuel cycle at which nuclear materials at or above the degrees of enrichment laid down in Part II are produced, processed, used or stored.

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10 OR 9

U.S.: "...the Agency should seek to achieve optimum cost effectiveness in applying safeguards. In doing so it should concentrate on, though not confine itself to, highly enriched uranium and plutonium, which were the most dangerous materials to be diverted..."

11 OR 9

U.S.S.R. "...it [is] neither logical nor appropriate that such a reference [as proposed by Australia] should appear in sub-section 3(a) rather than in Part II."

1 OR 12

Australia: "...to make the sentence technically more acceptable...the order of the two clauses had been reversed [in Doc 28 Rev. 1]...it rightly [belongs] in sub-section 3(a) in Part 1."

Doc 28 Rev. 1

- to concentrate verification procedures on those stages in the fuel cycle at which nuclear materials from which nuclear weapons or other nuclear explosive devices could readily be made are produced, processed, used or stored; and to minimize verification procedures in respect of other nuclear materials.

3 OR 12

U.S.: "...in favor of inclusion [of Australian Amendment] as sub-paragraph (c) in the new section 4, if the words to concentrate' and 'to minimize' were changed either to 'concentration of' or 'emphasis on', and 'minimization of', respectively..."

5 OR 12

U.S.S.R.: "...a phrase should be added to the effect that the minimization referred to should not hamper the work of the Agency in applying safeguards under the safeguards agreement."

22 OR 12

IAEA: "...[Doc 28 Rev. 1], with such modifications as had been agreed was acceptable to the Committee."

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23 OR 9

Hungary: "...based on paragraphs 14(b) and (c) of the Safeguards Document [INFCIRC/66]...the publication of summarized lists of items being safeguarded by the Agency and of additional information should be added to prevent the Agency [from] encountering difficulties in fulfilling its statutory obligations, particularly in providing information concerning the operation of safeguards to the General Conference or United Nations."

Doc 30 Hungary Proposal

Summarized lists of items being safeguarded by the Agency may be published upon decision of the Board, and additional information may be upon decision of the Board and if all States directly concerned agree.

24 OR 9

F.R.G.: "It might happen, however, that the Board of Governors wished to publish a list of items being safeguarded by the Agency, but that the State concerned was not represented on the Board and was not present when the decision was taken."

27 OR 9

U.K.: "...the words 'lists of items' should be replaced by 'information on nuclear material'..."

32 OR 9

Hungary: "...the publication of the information in question by the Agency [would be] on a national basis [versus world-wide], which would be a continuation of the existing practice..."

34 OR 9

South Africa: "...the wording should be absolutely clear. The wording of the original text proposed by Hungary might suggest that the phrase 'and if all States directly concerned agree' referred only to 'additional information' and not to 'Summarized lists of items being safeguarded by the Agency'."

35 OR 9 F.R.G. Proposal

"Summarized information on nuclear material safeguarded by the Agency may be published upon decision by the Board if the States directly concerned agree."

"Restricted (International Atomic Energy Agency)"

REVIEW OF THE NEGOTIATING HISTORY OF THE
IAEA SAFEGUARDS DOCUMENT INFCIRC/153
VOLUME II: CHAPTER 4.0

Final Report

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36 OR 9

"Sub-section 3(b), as formulated in [Doc 11], with the addition of the sentence in paragraph 35 above, was accepted."

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INFCIRC/153 Paragraph 7

NATIONAL SYSTEM OF ACCOUNTING FOR AND CONTROL OF NUCLEAR MATERIAL

7. The Agreement should provide that the State shall establish and maintain a system of accounting for and control of all nuclear material subject to safeguards under the Agreement, and that such safeguards shall be applied in such a manner as to enable the Agency to verify, in ascertaining that there has been no diversion of nuclear material from peaceful uses to nuclear weapons or other nuclear explosive devices, findings of the State's system. The Agency's verification shall include, inter alia, independent measurements and observations conducted by the Agency in accordance with the procedures specified in Part II below. The Agency, in its verification, shall take due account of the technical effectiveness of the State's system.

5(a) Doc 3

5(a) National system of materials control

In order to ensure the effective implementation of safeguards the Agreement should provide that the State maintain a system of materials control in respect of nuclear material subject to safeguards; such a system should include appropriate measures to ensure that safeguarded nuclear material is protected against unauthorized removal.

Doc 3

IAEA: "...While the Agency will make maximum use of data made available to it, it must maintain the capability of independent verification of the amount and location of nuclear material subject to safeguards. The Agency will not interfere in the internal legislation of the State governing the establishment and operation of the State's materials control system.

32 OR 6

U.K.: "...the national system of control [and the] accounting system [should be combined and] were of equal importance and the manner in which they were to be implemented should be specified in Part II of agreements.

33 OR 6

South Africa: "...it [should] be clearly understood that such verification [as proposed in IAEA comment above] should only be carried out in accordance with a procedure decided on by joint agreement."

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35 OR 6

Romania: "...it would be appropriate to state the principle that the Agency should take account of the national system for control of source and special fissionable materials."

Doc 15 Rev. 1 Japan Proposal

"The Agreement should provide that the State shall establish and maintain a system for the control of all nuclear material in its peaceful nuclear activities, and that the Agency's safeguards shall be applied in such a manner as to verify findings of the control of the nuclear material by the State in ascertaining that there has been no diversion of nuclear material from peaceful uses to nuclear weapons or other nuclear explosive devices. Such verification by the Agency shall include, inter alia, independent measures, such as measurements and observations, which shall be conducted as necessary by the inspectors of the Agency at such points and locations as may be identified from design information and through other procedures to be specified in Part II."

"The Agreement should also provide that the intensity of verification by the Agency shall be related to the degree of technical effectiveness of the system of nuclear material control of the State."

1 OR 8

Japan: "...it was upon States that the [NPT] laid certain obligations, and to the Agency that it entrusted the task of verifying whether the States fulfilled those obligations... The frequency and intensity of inspections would accordingly depend on the technical effectiveness of the control system applied in each State, and would be subject to different specifications in the subsidiary arrangements... [T]he Agency must have complete independence in carrying out its operations of verification, the procedures for which should be defined in Part II of Agreements."

2 OR 8

U.S.: "...The responsibility for control of nuclear materials should in fact rest with the State, and the system which it instituted for that purpose should enable the Agency to verify by itself the results of control... [T]he Agency should take due account for the effectiveness of national control in defining its procedures for the application...to remedy any shortcomings that might be found in the national control system and to intensify, where necessary, its verification.

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22 OR 8

Canada: "In carrying out this verification, the Agency should take due account of the technical effectiveness of the national system."

14 OR 8

U.K.: "...a provision [that the Agency would be able to carry out certain verifications 'at such points and locations as may be identified from design information and through other procedures to be specified in Part II'] might make it possible to avoid unwelcome inspections... [In addition,] the first sentence should be amplified in the following manner: "The agreement should provide that the State shall establish and maintain a system of control and accounting for all nuclear materials..."

16 OR 8

F.R.G.: "...suggest two specific changes, namely to strike out the words 'be applied in such a manner as to' in the second part of the first sentence, and to replace the second sentence by the following text: 'Such verification by the Agency shall include, inter alia, independent measurements and observations to be conducted pursuant to procedures to be specified in Part II.'"

19 OR 8

IAEA: "The main problem was to find a way of verifying the data present in reports and accounts. That problem arose in the context of verification as foreseen in the Japanese proposal. One had to decide exactly what information was relevant for purposes of verification. It has been suggested that the information in question should be the data supplied by the national system of control, but there again it was important to define clearly what was meant by a national system. For example, should the records kept by facilities themselves be regarded as part of the system?..."

20 OR 8

U.S.: "...changes proposed by the F.R.G....would set aside any fears...regarding the limitative character of the verification that could be carried out by the Agency..."

22 OR 8

Hungary: "...the control system should include appropriate measures to ensure protection of safeguarded nuclear material against unauthorized removal..."

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Doc 15 Rev. 2 Canada/Japan Proposal

"The Agreement should provide that the State shall establish and maintain a system of accounting for and control of all nuclear material subject to safeguards under the Agreement, and that such safeguards shall be applied in such a manner as to enable the Agency to verify findings of the State's system in ascertaining that there has been no diversion of nuclear material from peaceful uses to nuclear weapons or other nuclear explosive devices. The Agency's verification shall include, inter alia, independent measurements and observations conducted by the Agency in accordance with the procedures specified in Part II.

The Agency, in its verification, shall take due account of the technical effectiveness of the State's system."

2 OR 10

U.S.: "...[This proposal] reaffirmed two fundamental principles: that maximum use should be made of national systems of material control but also -- and that was an extremely important point -- that the Agency should be entitled to undertake independent verification..."

3 OR 10

U.S.: "...Verification of the findings of the national system constituted one of the means, but not only one, available to the Agency for ascertaining whether there had been any diversion of nuclear materials. Furthermore, the fact that in the English text the definite article had been omitted before the word "findings" made it quite clear that the Agency would verify such findings as were available but that in the absence of any findings would adopt other means to ascertain whether any diversion had occurred. It was evident, therefore, that the provision expressly conferred certain powers on the Agency but did not thereby exclude the exercise of others.

4 OR 10

"...Pains had been taken to ensure that [the second sentence] could not be interpreted as limiting in any way the means which the Agency could employ for such verification. In the English text the use of the word "shall" accentuated the Agency's right to undertake the independent measurements and observations envisaged. The term "include" made it clear that those measurements and observations constituted two of the possible operations, but that the Agency could undertake other operations in the course of

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such verification; and the point was further emphasized by the words "inter alia" which followed immediately thereafter. The principle of independent verification was reiterated in the third sentence.

5 OR 10

Yugoslavia: "...Hitherto the term [verification] had been used with reference to the undertakings given by States, in particular the undertaking not to divert nuclear materials from peaceful uses. Now the authors of the new formulation wished the term to be interpreted as meaning that the Agency should be enabled to verify findings of the State's system... [V]erification should relate only to the manner in which States fulfilled their undertakings and accordingly...the words'...findings of the State's system in ascertaining...'should be deleted.

16 OR 10

Yugoslavia withdrew suggestion.

19 OR 10

"The formulation of sub-section 5(a) in [Doc 15 Rev. 2] was accepted."

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INFCIRC/153 Paragraph 8

PROVISION OF INFORMATION TO THE AGENCY

8. The Agreement should provide that to ensure the effective implementation of safeguards thereunder the Agency shall be provided, in accordance with the provision set out in Part II below, with information concerning nuclear material subject to safeguards under the Agreement and the features of facilities relevant to safeguarding such material. The Agency shall require only the minimum amount of information and data consistent with carrying out its responsibilities under the Agreement. Information pertaining to facilities shall be the minimum amount of information and data consistent with carrying out its responsibilities under the Agreement. Information pertaining to facilities shall be the minimum necessary for safeguarding nuclear material subject to safeguards under the Agreement. In examining design information, the Agency shall, at the request of the State, be prepared to examine on premises of the State design information which the State regards as being of particular sensitivity. Such information would not have to be physically transmitted to the Agency provided that it remained available for ready further examination by the Agency on premises of the State.

5(b) Doc 3

5(b) Provision of information to the Agency

To assure the effective implementation of safeguards the Agency should be provided, in accordance with the provisions set out in Part II with information concerning nuclear material and facilities containing or to contain such material.

Doc 3

IAEA: "The information would consist of relevant design data, records and reports described in Part II. In addition minimal reporting requirements are proposed for material not subject to safeguards."

37 OR 6

U.S. "...States might well be less reluctant to furnish information relating to the particularly delicate sphere of commercial property if they could transmit it to their embassies in Vienna, where the competent Agency authorities would be able to examine it on the spot, instead of determining the documents within the Agency."

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38 OR 6

South Africa: "...[IAEA comment] regarding 'minimal reporting requirements for material not subject to safeguards' was without foundation in the law..."

39 OR 6

U.K.: "...[I]nformation on facilities should be strictly confined to that required for purposes of verifying the quantity and location of nuclear materials, in accordance with the procedures defined in Part II."

Doc 16 U.S. Proposal for Addition to 5(b)

"The Agency should require only the minimum amount of information and data consistent with carrying out its responsibility. Thus, for example, information pertaining to facilities should be the minimum necessary for safeguarding source and special fissionable material. Moreover, in performing design reviews, the Agency should, at the request of the State, be prepared to examine on premises of the State design information which the State regards as being of particular sensitivity. Such information need not be physically transmitted to the Agency provided it is retained for ready examination by the Agency on premises of the State."

Doc 17 Japan Proposal

"To assure effective implementation of safeguards the Agency should be provided, in accordance with the provisions set out in Part II, with information concerning the flow of nuclear material and of features of facilities pertaining to such flow."

26 OR 8

Japan: "...[T]he only items of information that the State should be obliged to provide [are that concerning the flow of nuclear materials and the features pertaining to such flow]."

27 OR 8

Japan: "...[R]eplacing...the words '...in performing design reviews' [in U.S. proposal Doc 16] by the words '...in examining design information [in Doc 17]...the Agency would not necessarily be examining the designs themselves -- a suggestion which might lead people to believe that the Agency could request a modification of the designs."

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28 OR 8

U.S.: "...[I]n stating that the Agency should be prepared to examine design information 'on the premises of the State' the U.S. was attempting to minimize any inconvenience which might arise through an on-site examination; i.e., an examination in the territory of the State concerned..."

31 OR 8

U.K.: "...[T]he last two sentences [of U.S. proposal in Doc 16], which defined technical principles and procedures of safeguards, should be relegated to Part II, where it would also be made clear what was to be understood by 'design reviews'..."

34 OR 8

U.S.: "...[these] last two sentences embodied principles which deserved emphasis in Part I of agreements - principles...which would encourage States to conclude safeguards agreements with the Agency."

44 OR 9

U.S.S.R.: "...[I]nclusion of the words 'and inventory' was essential; otherwise there would be no obligation to provide the Agency with information on nuclear material in storage."

46 OR 9

U.K.: "...[T]he word 'ensure' [should] be substituted for 'assure'..."

47 OR 9

"...[T]here were technical objections to juxtaposing the words 'flow' and 'inventory'... [T]he Committee had agreed that a 'flow' of nuclear material included material in storage..."

52 OR 9

F.R.G.: "...[T]he word 'features'...[might] be incorporated in the text in [Doc 3] so that it read: '...and features of facilities containing or to contain such material'."

55 OR 9

Italy: "...[T]he phrase 'or to contain'...appeared to imply an obligation to provide information on facilities which did not yet exist."

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57 OR 9

IAEA: "...[T]he phrase did not mean 'facilities which might conceivably contain material' but 'facilities built to contain material'. Its inclusion would enable the Agency to perform design reviews and thereby to ensure that the facilities were constructed in such a way that diversion between predetermined measurement points was not possible..."

Doc 16 Rev. 1 U.S. Proposal

"To ensure the effective implementation of safeguards the Agency should be provided, in accordance with the provisions set out in Part II, with information concerning nuclear material subject to safeguards under the Agreement and the features of facilities relevant to safeguarding such material. The Agency should require only the minimum amount of information and data consistent with carrying out its responsibilities under the Agreement. Information pertaining to facilities should be the minimum necessary for safeguarding source and special fissionable material. In examining design information, the Agency should, at the request of the State, be prepared to examine on premises of the State design information which the State regards as being of particular sensitivity. Such information need not be physically transmitted to the Agency provided it remains available for ready further examination by the Agency on premises of the State."

27 OR 10

Accepted.

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INFCIRC/153 Paragraph 9

AGENCY INSPECTORS

9. The Agreement should provide that the State shall take the necessary steps to ensure that Agency inspectors can effectively discharge their functions under the Agreement. The Agency shall secure the consent of the State to the designation of Agency inspectors to that State. If the State, either upon proposal of a designation or at any other time after a designation has been made, objects to the designation, the Agency shall propose to the State an alternative designation or designations. The repeated refusal of a State to accept the designation of Agency inspectors which would impede the inspections conducted under the Agreement would be considered by the Board upon referral by the Director General with a view to appropriate action. The visits and activities of Agency inspectors shall be so arranged as to reduce to a minimum the possible inconvenience and disturbance to the State and to the peaceful nuclear activities inspected, as well as to ensure protection of industrial secrets or any other confidential information coming to the inspectors' knowledge.

5(c) Doc 35(c) Agency inspectors

The State should take the necessary steps to ensure that Agency inspectors designated in accordance with Part II could carry out their functions under the Agreement.

IAEA: "The procedures for the designation and visits of Agency inspectors should consist of the relevant parts of the Inspectors Document. The Agreement on the Privileges and Immunities of the Agency, which provides the necessary privileges and immunities for inspectors, should also be incorporated in this Agreement by reference. The purpose of inspections is outlined in the Safeguards Document and the principal functions of inspectors are further identified in Part II of this document."

42 OR 6

South Africa: "...the Agreement on the Privileges and Immunities of the Agency [INFCIRC/9 Rev. 2] should be annexed to agreements..."

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43 OR 6

U.K.: "stressed the need to define clearly the rights of inspectors, on the basis, for example, of paragraphs 1,2,3,5,-6,7,13, and 14 of the Inspectors Document. It would also be wise to incorporate the relevant passages of the Agreement on Privileges and Immunities of the Agency in the subsection in question, rather than merely making reference to that instrument."

37 OR 8

Romania: "...[A] clause concerning the Agency's liability in the event of damage resulting from the application of safeguards under NPT [should be included in safeguards agreements]."

5(c) Doc 35 F.R.G./U.S. Proposal

"The Agreement should provide that the State should take the necessary steps, including the granting of the appropriate privileges and immunities, to ensure that Agency inspectors could carry out their functions under the Agreement. The Agency shall secure the consent of the State to the designation of Agency inspectors to that State. If the State either upon proposal of a designation or at any other time after a designation has been made, objects to the designation, the Agency shall propose to the State an alternate designation or designations. The repeated and unjustified refusal of a State to accept the designation of Agency inspectors which would impede the inspections conducted under the Agreement would be considered by the Agency with a view to appropriate action under the terms of the Agreement. The visits and activities of Agency inspectors shall be so arranged as to ensure on the one hand the minimum possible inconvenience to the State and disturbance to the facilities inspected as well as protection of industrial secrets or any other confidential information coming to the inspectors' knowledge, and on the other hand the effective discharge of the inspectors' functions."

24 OR 12

F.R.G.: "...the proposed text [5(c) Doc 35] represented an attempt to take into account comments made on proposals contained in [Docs 24,29 and 33]: the phrase 'including the granting of the appropriate privileges and immunities' was included in deference to the views which had been expressed by the United Kingdom delegation; the fourth sentence ('The repeated and unjustified refusal...under the terms of the Agreement.') was designed to accommodate the wishes of the Soviet delegation; the last sentence took into account the concern of the Japanese delegation

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regarding the protection of industrial secrets and other confidential information. With regard to the fourth sentence, [the F.R.G. and U.S. delegations] understood that 'appropriate action under the terms of the Agreement' would be in accordance with the provisions of the Inspectors Document.

25 OR 12

U.S.S.R.: "...the last part of the fourth sentence might be amended to read: '...appropriate action under the terms of the Agreement and in accordance with the provisions of the Inspectors Document'. The proposed text referred only to 'the Agency,' without specifying which organ of the Agency should take the 'appropriate action.' Accordingly, the inclusion of a reference to the Inspectors Document would be particularly helpful since, under the provisions of the Inspectors Document, it was for the Board to take appropriate action in connection with the repeated refusal of a State to accept the designations of an Agency inspector."

26 OR 12

F.R.G.: "...the Inspectors Document was not mentioned in the proposed text because the procedure to be followed in cases where a State repeatedly refused to accept the designation of an inspector was not a matter which should be spelled out in an agreement between the Agency and a state; it was a matter relating solely to the internal organization of the Agency."

27 OR 12

U.K.: "...while the Committee should possibly make recommendations to the Board regarding the internal organization of the Agency in the light of its new obligations, such recommendations should not be incorporated in the agreements concluded in connection with NPT."

29 OR 12

"The repeated refusal by a State to accept the designation of an Agency inspector was simply one way in which a State might fail to comply with the provisions of the agreement concluded between it and the Agency; it could equally well refuse to provide necessary information or to accept safeguards on all nuclear material in all peaceful activities. It would therefore be wrong to single out the designation of inspectors as a special problem, particularly since the detailed arrangements relating to inspectors would be specified in Part II..."

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30 OR 12

Canada and Italy: "expressed reservations concerning the words 'and unjustified' in the fourth sentence of the proposed text."

31 OR 12

U.S. "...the Board would have to decide whether or not [repeated] refusal [of inspectors] was justified."

32 OR 12

"...States were nowhere accorded the right to withhold necessary information, whereas paragraph 2 of the Inspectors Document did provide for the objection by a State to the designation of an Agency inspector - and there had to be some limit on that right."

38 OR 12

India: "considered that the Soviet delegation was right in wishing to establish which organ of the Agency would be responsible for taking 'appropriate action'. The [India's] opinion, under the Statute such action could be taken only by the Board - an opinion which was supported by the wording of paragraph 2 of the Inspectors Document.

39 OR 12

"Like some other representatives, [India] felt that the words 'and unjustified' were out of place. If the Director General thought that the refusal by a State to accept the designation of a particular inspector was justified, he would presumably designate another one; if not, he would refer the matter to the Board. The Inspectors Document was clear on the question of the procedure to be followed, and...therefore prefer the end of the fourth sentence of the proposed text to read: '...in accordance with the provisions of the Inspectors Document'."

40 OR 12

Japan: "...favored the deletion of the words 'and unjustified' because States were not required to give reasons for refusing a designation and it would therefore be impossible for the Director General to judge whether or not such refusal was justified."

5(c) Doc 35/Rev.1

"The Agreement should provide that the State should take the necessary steps, including the granting of the appropriate privileges and immunities, to ensure that Agency inspectors could

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effectively discharge their functions under the Agreement. The Agency shall secure the consent of the State to the designation of Agency inspectors to that State. If the State either upon proposal of a designation or at any other time after a designation has been made, objects to the designation, the Agency shall propose to the State an alternate designation or designations. The repeated refusal of a State to accept the designation of Agency inspectors which would impede the inspections conducted under the Agreement would be considered by the Board of Governors upon referral by the Director General with a view to appropriate action under the terms of the Agreement. The visits and activities of Agency inspectors shall be so arranged as to ensure the minimum possible inconvenience to the State and disturbance to the facilities inspected as well as protection of industrial secrets or any other confidential information coming to the inspectors' knowledge."

1 OR 14

U.S.: "...The original text had been amended as follows: in the first sentence, the words 'carry out' had been replaced by the words 'effectively discharge'; in the fourth sentence, the words 'and unjustified' had been omitted, and the words 'the Agency' had been replaced by the words 'the Board of Governors upon referral by the Director General'; and in the fifth sentence the words 'on the one hand' and the phrase 'and on the other hand the effective discharge of the inspector's functions' had been omitted."

2 OR 14

F.R.G.: "...for the political sake of compromise [reluctantly agreed to the revised formulation] which attempted to regulate the internal organization of the Agency."

3 OR 14

Australia: "...the words 'and disturbance' in the fifth sentence should be transposed and inserted after 'inconvenience' and the word 'area' should be inserted between 'State' and 'the facilities'."

5 OR 14

U.K.: "...[S]hared doubts...regarding the propriety or necessity of attempting an agreement with a State, to regulate the internal organization of the Agency..."

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6 OR 14

U.K.: "interpreted the word "appropriate" as having the same connotation as the word "necessary" in the first sentence of the proposed text, in accordance with the general principle of international law. It was therefore a matter of granting the necessary privileges and immunities to ensure that Agency inspectors could effectively discharge their functions... [T]he words 'facilities inspected' should be replaced by 'peaceful nuclear activities', which would...be more consistent with the concept of inspection of nuclear material in peaceful nuclear activities used elsewhere in Part I."

8 OR 14

India: "...the phrase 'under terms of the Agreement' at the end of the penultimate sentence was redundant and should be deleted, since the Inspectors Document simply used the words appropriate action."

13 OR 14

U.K.: "...the last sentence [should read] '...to reduce to the minimum the possible inconvenience and disturbance to the State and the facilities inspected as well as to ensure protection-...'."

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INFCIRC/153 Paragraphs 11-13

TERMINATION OF SAFEGUARDS

Consumption or dilution of nuclear material

11. The Agreement should provide that safeguards shall terminate on nuclear material subject to safeguards thereunder upon determination by the Agency that it has been consumed, or has been diluted in such a way that it is no longer usable for any nuclear activity relevant from the point of view of safeguards, or has become practicably irrecoverable.

Transfer of nuclear material out of the State

12. The Agreement should provide, with respect to nuclear material subject to safeguards thereunder, for notification of transfers of such material out of the State, in accordance with the provisions set out in paragraphs 92-94 below. The Agency shall terminate safeguards under the Agreement on nuclear material when the recipient State has assumed responsibility therefor, as provided for in paragraph 91. The Agency shall maintain records indicating each transfer and, where applicable the re-application of safeguards to the transferred nuclear material.

Provisions relating to nuclear material to be used in non-nuclear activities

13. The Agreement should provide that if the State wishes to use nuclear material subject to safeguards thereunder in non-nuclear activities, such as the production of alloys or ceramics, it shall agree with the Agency on the circumstances under which the safeguards on such nuclear material may be terminated.

6(a)-(c) Doc 3

6(a) Consumption or dilution of nuclear material

Safeguards should terminate on nuclear material upon determination by the Agency that the nuclear material is of no more interest from the point of view of safeguards.

6(b) Transfer of nuclear material out of the State

The Agency should terminate safeguards on nuclear material under this Agreement when it has satisfied itself that the nuclear material has been transferred out of the territory of the State, its jurisdiction and its control anywhere.

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6(c) Other circumstances for termination

IAEA: "As safeguards would apply to nuclear material in peaceful nuclear activities, no safeguards need be applied to certain types of nuclear material to be used in non-nuclear activities e.g. source material to be used for the production fo alloys or ceramics. Should such a case arise, the Agency and the State would make the arrangements foreseen under paragraph 27 of the Safeguards Document. This would be a technical matter which would be settled in the implementation of safeguards."

34 OR 11

IAEA: "...Proposal made by the United Kingdom and supported by Romania to reword the text of Sub-Section 6(a)...was accepted."

'Safeguards should terminate on nuclear material subject to the Agreement upon determination by the Agency that it has been consumed, or has been diluted in such a way that it is no longer usable for any nuclear activity relevant from the point of view of safeguards, or has become practicably irrecoverable.'

5 OR 11

Egypt: "...the Agency's verification responsibilities should continue after nuclear material had been transferred out of a State; otherwise there would be a serious gap in the system devised to prevent such diversion, especially if nuclear material were exported to a country which was not a party to NPT."

6 OR 11

"...Safeguards agreements concluded in connection with NPT should be non-discriminatory and uniform in character."

10 OR 11

U.S.: "The obligations of States and the Agency under NPT were laid down in the Treaty itself, and any attempt to modify them in the agreements to be concluded between, the Agency and States party to NPT would inevitably have unfortunate consequences. For example, insistence on verification by the Agency of the fulfillment of the obligation assumed under Article III.2 would result in discrimination against non-nuclear-weapon States where Safeguards were applied, in favour of nuclear-weapon States; moreover, it would involve the Agency in the application of safeguards to equipment and non-nuclear material."

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13 OR 11

Egypt: "...If [the Agency's] responsibility was not to extend beyond the territory of a State and safeguards on nuclear material were to be terminated upon transfer...how could the Inspector General verify that no diversion had taken place during that transfer? Furthermore under Article III.2 a State could not provide source or special fissionable material unless it was subject to safeguards. That requirement gave rise to serious legal complications, and it was therefore necessary that the extent of the Agency's responsibility should be clearly defined."

15 OR 11

U.K.: "...under Article III.2 safeguards would in fact be applied during the transfer of nuclear material, but that it was up to the State concerned to fulfil the relevant obligation."

22 OR 11

IAEA: "...Agency Safeguards were applied to material within a State until the moment of transfer out of it, however the material could only be transferred to another State which had already agreed to apply Agency Safeguards. In the recipient State safeguards would then be applied to the material again, so that the whole process of transfer was in fact covered and if at any stage the material was diverted the Agency would certainly become aware of that diversion."

24 OR 11

IAEA: "...a State party to NPT could only export nuclear material to a State not party thereto if the latter had a safeguards agreement with the Agency."

28 OR 11

Egypt: "...in any case, in the situation which caused concern, there should be some reference to the fact in sub-section 6(b).

Doc 36 U.S. Proposal

The Agreement should provide, with respect to any nuclear material subject to safeguards under the Agreement, for advance notification of any transfer of such material out of the State's territory or beyond its jurisdiction or control anywhere. The Agency should terminate safeguards on nuclear material under the Agreement when it has satisfied itself that such transfer has been made. The Agency will maintain records indicating each such transfer and the reapplication of safeguards to the transferred material.

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44 OR 12

U.S.: "...although the Agency could not directly verify the undertaking of State under Article III.2 of NPT that it would export or transfer nuclear materials to non-nuclear-weapon States only when they were subject to safeguards in the recipient State, the Agency would in fact have indirect knowledge on whether that undertaking was being complied with because it would know of the export of such material from a State which had entered into a safeguards arrangement with the Agency and because it would know whether that material had been covered under another safeguards arrangement with the Agency, i.e., whether safeguards had been re-applied to the same material. [The U.S.] delegation's proposal took into account the fact that knowledge would be available to the Agency."

45 OR 12

"...The third sentence of the proposal introduced a new feature, the maintenance of records by the Agency to indicate whether or not the obligations under Article III.2 of NPT were being complied with."

46 OR 12

Japan: The provision of advance notification "...was unnecessary in the case of transfers between non-nuclear-weapon States party to NPT...the formulation, if accepted, would restrain the flow, which should be as free as possible, of nuclear material between States. The question of advance notification and how the Agency satisfied itself about transfers were procedural matters which should be dealt with in detail under Part II..."

47 OR 12

U.K. "...saw no objection to advance notification provided that such notification was simply to facilitate the Agency's task and did not imply in any way that the Agency or anyone else should have a veto over transfers. Certain exporters might, however, object to stating where they were sending the material."

50 OR 12

U.S.S.R.: "...did not see any great danger to States in the new formulation proposed by the U.S...."

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51 OR 12

U.S.: "...felt strongly about the need for advance notification. [The U.S.] delegation understood [Japan's] objection and fully agreed that there should be the maximum possible free flow of material, especially between States party to NPT. The difficulty arose with regard to control over material in transit through States not party to NPT. The Agency should therefore know in advance of such transfers and take appropriate measures, such as the use of seals and other safeguards devices, to prevent tampering and assist in the application of safeguards. [The U.S.] delegation felt that there was no inconsistency between its proposal and the need for free flow of material. ...[T]here should be advance notification only after conclusion of a commercial contract. ...[T]he U.S. delegation favored] leaving the question of advance notification to be considered in detail under Part II on the understanding that the question did constitute an essential element of Subsection 6(b)."

57 OR 12

India: "...the phrase 'when it has satisfied itself that such transfer has been made' might...entail all kinds of complications for the Agency, with which it should not be concerned, such as having an inspector on board a vessel, and so forth."

65 OR 12

Italy: "suggested that the words 'it has satisfied itself that' should be deleted from the new formulation. The procedure whereby the Agency should satisfy itself that the transfer had been made could be considered under Part II."

72 OR 12

"It was so agreed..."

(c) Doc 161 U.S. Proposal

The Agreement should provide, with respect to nuclear material subject to safeguards under the Agreement, for notification of transfers of such material out of the State, in accordance with the provisions set out in Part II. The Agency shall terminate safeguards under the Agreement on nuclear material when the recipient State has assumed responsibility therefor as provided for in paragraph 58 of Part II. The Agency shall maintain records indicating each transfer and, where applicable, the reapplication of safeguards to the transferred nuclear material.

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76 OR 75

U.S. "...recalled that the first sentence of the paragraph, which dealt with the transfer of nuclear material out of the State, had been provisionally left in parantheses in order that account...be taken of provisions formulated for Part II..."

77 OR 75

"The amended version [in Doc 161] was accepted."

4 OR 13 U.K. Proposal for 6(c)

"Provisions relating to material for use for non-nuclear purposes"

"If the State wishes to use nuclear material subject to the Agreement for non-nuclear purposes, such as the production of alloys or ceramics, it shall agree with the Agency on the circumstances under which the safeguards on such materials may be terminated."

5 OR 13

"The proposal of the United Kingdom was adopted."

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INFCIRC/153 Paragraph 14

NON-APPLICATION OF SAFEGUARDS TO NUCLEAR MATERIAL TO BE USED IN
NON-PEACEFUL ACTIVITIES

14. The Agreement should provide that if the State intends to exercise its discretion to use nuclear material which is required to be safeguarded thereunder in a nuclear activity which does not require the application of safeguards under the Agreement, the following procedures will apply:

- (a) The State shall inform the Agency of the activity, making it clear:
 - (1) That the use of the nuclear material in a non-proscribed military activity will not be in conflict with an undertaking the State may have given and in respect of which Agency safeguards apply, that the nuclear material will be used only in a peaceful nuclear activity; and
 - (2) That during the period of non-application of safeguards the nuclear material will not be used for the production of nuclear weapons or other nuclear explosive devices;
- (b) The State and the Agency shall make an arrangement so that, only while the nuclear material is in such an activity, the safeguards provided for in the Agreement will not be applied. The arrangement shall identify, to the extent possible, the period or circumstances during which safeguards will not be applied. In any event, the safeguards provided for in the Agreement shall again apply as soon as the nuclear material is reintroduced into a peaceful nuclear activity. The Agency shall be kept informed to the total quantity and composition of such unsafeguarded nuclear material in the State and of any exports of such material; and
- (c) Each arrangement shall be made in agreement with the Agency. The Agency's agreement shall be given as promptly as possible; it shall only relate to the temporal and procedural provisions, reporting arrangements, etc., but shall not involve any approval or classified knowledge of the military activity or relate to the use of the nuclear material therein.

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7 Doc 3

7. Non-application of safeguards to nuclear material to be used in non-peaceful activities

If a state intends to use safeguarded nuclear material which is in a peaceful nuclear activity - and, therefore, required to be safeguarded pursuant to Article III.1 of NPT - in an activity which does not require the application of safeguards pursuant to NPT, the following procedures might be appropriate:

- (a) In requesting the non-application of safeguards the State should inform the Agency of the activity and show that the use of the nuclear material in a non-prescribed military activity is not in conflict with an undertaking by the State that it shall be used in a peaceful nuclear activity only;
- (b) The State and the Agency would make an arrangement so that the safeguards provided for in the Agreement would not be applied only while the material is in such an activity. The arrangement would identify, to the extent possible, the period or circumstances during which safeguards would not be applied. In any event the safeguards provided for in this Agreement should again apply as soon as the material is reintroduced into a peaceful nuclear activity, such as chemical reprocessing (see recommended definition of "peaceful nuclear activities" in paragraph 1(d) of part II). The Agency should be kept informed of the total quantity and composition of such unsafeguarded material in the State and of any exports of such material. The State's obligation not to divert such material to nuclear weapons or other nuclear explosive devices would, of course, subsist during the period when Agency safeguards are not applied, and this understanding should be reaffirmed; and
- (c) Each arrangement should be subject to approval by the Board of Governors. The Board's approval would only relate to the temporal and procedural provisions, reporting arrangements, etc. but would not involve an approval of the military activity, or relate to the use of nuclear material therein. .

7.A Doc 3

IAEA: "Nuclear material supplied by or through the Agency under a Project Agreement concluded pursuant to Article XI.F of the Statute or provided under the majority of Co-operation Agreements is subject to an undertaking against furtherance of any military

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purpose. Similarly, nuclear material produced in or by the use of a facility, equipment or other material (such as heavy water) that have been supplied under a Project Agreement or such Co-operation Agreements is thereby subject to assurances by the recipient State guaranteeing its use in a peaceful nuclear activity. Therefore a considerable proportion of the nuclear material in non-nuclear-weapon States is subject to the restriction that it may not be used for any military purpose. While relatively few non-nuclear-weapon States are expected, at least in the next few years, to use nuclear material in non-proscribed military activities, the Agreement should take account of such an eventuality."

7.B Doc 3

"In suggesting that the State which requests the non-application of safeguards should show that there is no such restriction on the nuclear material, it is assumed that the Agency would keep only one inventory of nuclear material subject to safeguards in the State, regardless of the origin of the material or of any conditions that might have been attached to its supply. A much more onerous alternative would be for the Agency to keep multiple accounts of nuclear material according to the origin of the material. The suggested provisions would also, it is hoped, enable the Parties to the Co-operation Agreements in question to agree to the suspension of bilateral safeguards since they would provide the supplying State with an assurance that the material it supplies would always have to remain in a peaceful nuclear activity and therefore subject to safeguards. Consequently, there should be no need to apply bilateral safeguards against use in furtherance of any military purpose.

3 Doc 22

Egypt: "The extent, scope and effectiveness of the application of safeguards under NPT should depend upon the precise definition of what is meant by the term "peaceful activity... [A] comprehensive list of all possible activities covered by this term should be included in the definition required for the Agreement. The definition should cover facilities which are potentially hazardous and in any case should include the use of nuclear explosive devices for peaceful purposes and uranium enrichment facilities."

1 Doc 23 U.S. Proposal to replace first sentence

"If a State intends to exercise its right to use nuclear material which is required to be safeguarded pursuant to NPT, in an activity which does not require the application of safeguards pursuant to NPT, the following procedures would be appropriate."

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39 OR 11

U.S.: "...[O]ne reason for the proposal was that it would provide more assurance than under Section 7, as formulated in [Doc 3], that the Agency would not exercise any policy judgement or veto regarding the right and intention of a State under NPT to employ, for certain military purposes, nuclear material which did not fall within the category of nuclear weapons or other nuclear explosive devices."

40 OR 11

"The other reason for the proposed amendment of the first sentence was to make clear that the Agency should be consulted and satisfactory administrative arrangements reached concerning the use of any nuclear material for a military purpose permitted under NPT, whether or not the material was initially under safeguards... [T]he sentence as worded in [Doc 3] would limit the involvement of the Agency to cases where the material already under safeguards was to be withdrawn for use in a permitted military activity; and that wording might not provide for one type of situation whereby material which was to have been under safeguards because it was supplied for a peaceful use or because it was produced in equipment which was supplied for a peaceful use, had never been placed under safeguards, as a result of which the Agency would not be able to make the appropriate administrative arrangements. The provision should thus be applied to all material which was either actually under safeguards and to be withdrawn or which had never been placed under safeguards and which was intended to be used in a permitted military activity."

7 OR 13

U.S.: "...[T]he expression 'exercise its rights' [in the U.S. proposal 1 Doc 23] lent greater emphasis to the fact that under NPT a state had a right to use nuclear materials which were normally required to be safeguarded pursuant to NPT in an activity which did not require the application of safeguards pursuant to NPT, and it was not the function of the Agency to decide whether the State was or was not entitled to exercise that right... [T]he role of the Agency covered not only materials already safeguarded but also all materials which were required to be safeguarded under NPT; the wording suggested by the [IAEA in Doc 3] might be interpreted to mean that if nuclear materials were assigned at the moment of their production to a non-military nuclear activity, they would not be subject to safeguards under the agreement concluded with the Agency."

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8 OR 13

U.K.: "wondered whether the English expression which had been consistently used during the work of the Committee - nuclear material subject to safeguards under this agreement" - meant something different from the formula proposed by the United States, viz. 'nuclear material which is required to be safeguarded pursuant to NPT'; if it did the Committee must have been performing its duties very badly indeed, since its task was to arrange for the application of safeguards under NPT."

9 OR 13

Furthermore, the words 'an activity which does not require the application of safeguards' could denote either a non-peaceful or a non-nuclear activity. If, Section 7 was intended to cover military activities - non-peaceful activities not involving the production of nuclear weapons - a different wording would probably be better. The United Kingdom delegation accordingly proposed the following re-formulation of the sentence proposed in [Doc 23]:

'If a State intends to use in a non-peaceful nuclear activity nuclear material which is subject to safeguards under this Agreement, the following procedures shall apply:'

10 OR 13

U.S.: "...could not under any circumstances accept deletion of the words 'exercise its right', which...in no way modified the legal position resulting from NPT; and, although the Agency would conclude with the State certain administrative arrangements, it was not competent to pronounce on what the State could or could not do."

11 OR 13

U.S. "...saw no objection to [U.K. proposal] referring to the Agreement instead of the NPT [in the expression 'which is required to be safeguarded pursuant to NPT']. For the rest, however... [the] wording made it clear that the Agency's role was not restricted to nuclear materials already safeguarded and that, in consequence, the State would be obliged to secure termination of safeguards when it wished to use nuclear materials in a non-explosive military activity not involving the production of nuclear weapons and not prescribed by NPT."

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13 OR 13

Belgium: "proposed adding the word 'nuclear' before the word activity in the second line of the first paragraph of the United States proposal."

14 OR 13

India: "observed that the only right of States recognized by NPT was the right to use nuclear energy for peaceful purposes. A State could well use in its activities nuclear material which did not require the application of safeguards, not by virtue of a recognized right but simply because the Treaty left it at liberty to do so. Hence it would be advisable to recast the first phrase of the United States amendment as follows: 'If a State intends to exercise its discretion to use nuclear material...'"

16 OR 13

Japan: "...wondered why the Director General and the representative of the United States had preferred to speak of 'an activity which does not require the application of safeguards' rather than to mention those activities explicitly."

17 OR 13

U.S.: "...the text of the agreement should correspond as closely as possible to the provisions of NPT, which envisaged only prohibitions. To attempt to define activities not requiring the application of safeguards under NPT would be to venture an interpretation of the Treaty, and that was not the Agency's task. For that reason he continued to believe that the expression used in his amendment was correct and that the activities to which it referred would be examined with all the required care in the light of Sub-section 6(c)."

19 OR 13

U.S.: "...the formula insisted on by the representative of the United Kingdom...left one in doubt as to whether the activities in question were already subject to safeguards or whether they should be subject to safeguards, whereas the formula proposed by the United States contained no such ambiguity."

20 OR 13

"With regard to activities not requiring the application of safeguards, obviously the reference was to non-proscribed military activities. Hence the text would gain in precision if the Belgian proposal, namely to insert the word 'nuclear' before the word 'activity,' were accepted."

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22 OR 13

U.S.: "...the final formulation [as accepted]...reflecting the changes suggested by the representatives of the U.K., Belgium and India, was as follows: "If the State intends to exercise its discretion to use nuclear material which is required to be safeguarded under the Agreement in a nuclear activity which does not require the application of safeguards under the Agreement, the following procedures...'

Doc 26 Yugoslavia Proposal

In requesting the non-application of safeguards the State should inform the Agency of the activity and:

- Show that the use of the nuclear material in a non-proscribed military activity is not in conflict with an undertaking by the State that it shall be used in a peaceful nuclear activity only; and
- Prove that the nuclear material after termination of safeguards will not be used for the production of nuclear weapons or other nuclear explosive devices.

25 OR 13

Yugoslavia: "...the purpose of the proposed changes...was to supplement the obligations incumbent on a State requesting that safeguards should not be applied to certain materials. That State should be required to prove that the materials in question would not be used for the production of nuclear weapons or other nuclear explosive devices; so much was clear from Articles II and III of NPT... [This did not mean that States would have] to submit their military activities to inspection..."

26 OR 13

...[A State] might be able to show that the materials were only suitable for [non-proscribed military] activities. If the materials in question were of the purity required for the manufacture of nuclear weapons, however, it would obviously be very difficult to offer satisfactory proof that they were not intended for the production of such weapons. In that case a request for non-application of safeguards would have to be refused, a consequence which was perfectly in keeping with the objectives of NPT and of the safeguards system."

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29 OR 13

U.K.: "...termination of safeguards meant ceasing to apply them, whereas non-application obviously meant not applying them in the first place."

33 OR 13

Belgium: "...suggested that the beginning of the text proposed in [Doc 26] be worded as follows: 'The State should inform the Agency of the activity in question and make it clear'. In that way the words 'show' and 'prove' could be eliminated at the beginning of the sub-paragraphs."

34 OR 13

F.R.G.: "...What would happen when...an undertaking [to use materials exclusively for peaceful nuclear activities] appeared in an agreement which fell completely outside the Agency's sphere of competence?"

35 OR 13

France: "suggested the following amendment of Sub-section 7(a) as a possible solution to the problem raised by the representative of the Federal Republic of Germany: '...show that the use of the nuclear material in a non-proscribed military activity is not in conflict with any undertaking which may have been given by the State and guaranteed by the Agency that it shall be used in a peaceful nuclear activity only;'. That provision would cover the case where a State had entered into a commitment with another State but not with the Agency, and where the Agency had undertaken to guarantee that commitment."

37 OR 13

U.S.: "...the amendment suggested by...France...covered both the case where nuclear materials were furnished by the Agency - the undertaking not to use them for military purposes being given to the Agency - and the case where nuclear materials were furnished by a State, the undertaking then being given to that State but guaranteed by the Agency."

38 OR 13

"With regard to the change proposed by the Yugoslav delegation, it was worth pointing out that NPT gave States every latitude to use nuclear material for certain military activities which did not involve the production of nuclear weapons or other nuclear explosive devices; it did not provide that the Agency must verify

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whether the materials were in fact so used... [A] State which planned to use materials for such non-proscribed military purposes should not give the Agency an undertaking that the materials would not be used to produce nuclear weapons or nuclear explosives...[because] such an assurance would add to the commitment the State had already entered into by becoming a party to NPT..."

Doc 37 IAEA Proposal

- (a) The State should inform the Agency of the activity, making it clear:
- That the use of the nuclear material in a non-proscribed military activity will not be in conflict with an undertaking the State may have given and in respect of which Agency safeguards apply, that the material would be used only in a peaceful nuclear activity; and
 - That the nuclear material after termination of safeguards will not be used for the production of nuclear weapons or other nuclear explosive devices.

19 OR 14

Australia: "suggested the wording: 'That during the period of non-application of safeguards the material will not be...'[to replace 'that the material after termination...']."

21 OR 14

IAEA: "...the phrase ['and in respect of which Agency safeguards apply,'] referred to undertakings which States might have entered into under - for example - trilateral arrangements or project agreements."

25 OR 14

U.K.: "With regard to the phrase 'and in respect of which Agency safeguards apply'...the Agency should ensure as a matter of course that obligations under existing arrangements between States and the Agency were also covered by agreements concluded in connection with NPT."

26 OR 14

IAEA: "...Sub-section 7(a) contained in [Doc 37] with the change suggested by...Australia [was accepted]."

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28 OR 14

F.R.G.: "...as a result of the Committee's decision on Sub-section 7(a), the final sentence in Sub-section 7(b)...in [Doc 3] appeared to be superfluous and could be omitted... [T]he whole phrase starting with 'such as chemical reprocessing' including the words in parentheses, could also be omitted."

Doc 23 U.S. Proposal

- (c) Each arrangement would be made in agreement with the Director General. The Director General's agreement would be given as promptly as possible; it would only relate to the temporal and procedural provisions, reporting arrangements, etc., but would not involve any approval or classified knowledge of the military activity or relate to the use of the nuclear material therein.

31 OR 14

U.S.: [Re proposal] "...the Agency's role in carrying out the arrangements with States was a purely administrative one and did not represent a matter of policy. The arrangements would be made in the Agreement with the Director General and not be subject to the Board's approval, though the latter could, of course, be consulted if necessary. Furthermore, no classified information need be made available in establishing such an arrangement."

33 OR 14

Australia: "...suggested amending the first two sentences to read: 'Each arrangement should be made in agreement with the Agency. The Agency's agreement would be given as promptly as possible'."

35 OR 14

IAEA: "Sub-section 7(c), as formulated in [Doc 23], with Australian amendment [was] accepted."

UAE
Doc 38

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INFCIRC/153 Paragraph 16

THIRD PARTY LIABILITY FOR NUCLEAR DAMAGE

16. The Agreement should provide that the State shall ensure that any protection against third party liability in respect of nuclear damage, including any insurance or other financial security, which may be available under its laws or regulations shall apply to the Agency and its officials for the purpose of the implementation of the Agreement, in the same way as that protection applies to nationals of the State.

9(a) Doc 3

9(a) Third party liability for nuclear damage

The State should ensure that any protection against third party liability, including any insurance or other financial security, in respect of a nuclear incident should apply to the Agency and its inspectors when carrying out their functions under this Agreement in the same way as that protection applies to nationals of the State.

Doc 3

IAEA: "A provision on the above lines would take into account the special legal regime in the field of civil liability for nuclear damage under international conventions and national legislation."

1 Doc 49 F.R.G./U.K. Proposal

"The Agreement should provide that the State should ensure that any protection against third party liability in respect of nuclear damage, including any insurance or other financial security, which may be available under its national legislation or regulations shall apply to the Agency and its officials for the purpose of the implementation of the Agreement in the same way as that protection applies to nationals of the State."

1 OR 23

F.R.G.: "...the words 'national legislation' in the proposed formulation [instead of] the words 'laws',...would cover not only national legislation but also international laws ratified and enforced by the State."

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3 OR 23

Australia: "...the Agency's inspectors were already covered in respect of third party liability for nuclear damage by Section 1 of Appendix D to the Agency Staff Regulations and Staff Rules. [Australia] believed indemnity of inspectors should remain an Agency responsibility.

5 OR 23

"...Subsection 9(a) in [1 Doc 49] as amended, was accepted."

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INFCIRC/153 Paragraph 17

INTERNATIONAL RESPONSIBILITY

17. The Agreement should provide that any claim by one party thereto against the other in respect of any damage, other than damage arising out of a nuclear incident, resulting from the implementation of safeguards under the Agreement, shall be settled in accordance with international law.

9(c) Doc 3

9(b) International responsibility of the State and the Agency

The Agreement should contain a clause on responsibility for any damage that might be caused by one Party to the other.

10 Doc 34 U.S. Proposal

10. In order to facilitate the recovery of damages against an employee guilty of wrongful disclosure of trade secrets, or against his insurer, ~~or against the user of the trade secrets~~ so obtained, it is suggested that the following material be included in Section 9(b):

"The Agreement should include an undertaking by the Agency in the event that any proprietary commercial or industrial information, or other confidential information, obtained in the course of the Agency's safeguards activities has been wrongfully disclosed by an Agency employee, to co-operate with the injured party in any litigation brought by such party against such employee, his insurer, or an actual or potential user of such wrongfully disclosed information, by making available its finding with respect to the impropriety of such disclosure together with appropriate supporting factual information."

9 OR 15

U.S.: "...[I]t would be desirable to state more explicitly that legal action against inspectors and other Agency personnel presupposed a waiver by the Agency of privileges and immunities in respect of such persons... [U]nder the Agency's Staff Rules, an inspector would be required to reimburse the Agency for any financial loss it might suffer as a result of wrongful action by that inspector and that Staff Regulation 1.06 stated that Agency staff members should not use for their private advantage information known to them by reason of their official position."

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11 OR 15

F.R.G.: "...The question of the personal liability of inspectors, particularly as regards the divulging of secret or confidential information, was an extremely delicate one and would require the most thorough consideration."

12 OR 15

"...did not think that provisions for taking legal action against inspectors would normally be effective: an inspector who divulged secret or confidential information would probably divulge it to the authorities of his own country, which would almost certainly protect him against legal prosecution."

13 OR 75

"...found...international law [most acceptable for making clear a basis] on which separation would be made. At the same time, there should be provision for the establishment of an arbitral tribunal."

18 OR 15

U.K.: "...did not share all of [F.R.G.] misgivings about the question of personal liability of inspectors; quite apart from its deterrent value, provision for legal action against inspectors could be useful from the point of view of enabling the Agency - and hence members States - to protect their financial interests. At the same time...emphasis should be on the responsibilities of the Agency as a body."

19 OR 15

F.R.G.: "questioned the necessity of singling out the divulging of secret or confidential information for special attention; there were other forms of damage which an inspector could cause."

2 Doc 49 F.R.G./U.K.Proposal

International responsibility of the Agency

Subject to section 9(a) above, the Agency should undertake to make reparation, in accordance with international law, for any damage caused by it or its officials as a result of the implementation of safeguards under the Agreement.

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6 OR 23

F.R.G.: "...the joint proposal...was intended to provide for cases where the coverage of liability by the Agency did not occur and was, therefore, more comprehensive than the wording...in [Doc 3]."

8 OR 23

U.K.: "...that clause ['Subject to section 9(a) above'] was intended to exclude double liability, since there was no need for the Agency to undertake to make reparation if protection was provided under Sub-section 9(a)."

10 OR 23

IAEA (Legal): "...Safeguards agreements contained no clauses relating to the Agency's liability."

12 OR 23

U.S.S.R.: "...[S]afeguards agreements in connection with the NPT should not include clauses which had not been tested by experience but rather they should merely give certain general indications, for example, that responsibility for any damage would be discussed in conformity with existing international laws..."

13 OR 23

India: "...the proposed version...was less comprehensive than the original formulation, which did not specify the type of damage caused. Furthermore, the proposed version excluded any reference to reciprocity, which must be mentioned..."

Doc 55 F.R.G./U.K./U.S. Proposal

The Agency should undertake to make, in accordance with international law, reparation for any damage, other than damage arising out of a nuclear incident, caused by it or its officials as a result of the implementation of safeguards under the Agreement.

1 OR 26

U.S.: Doc 55 "...sought to resolve any doubts as to whether... 'in accordance with international law'...the Agency should be held responsible for damage in a given case, on the question of type and amount of damages that would be payable if the Agency were held responsible... [I]nternational law should apply to both questions... Turning to another aspect...[t]he proposal was

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explicitly intended to avoid an interpretation of Sub-section 9(b) to the effect that the Agency was agreeing to permit recourse against it in the case of damage arising out of a nuclear incident covered by laws or conventions that would have precluded any such recourse without agreement."

2 Doc 56 F.R.G./U.K./U.S. Proposal for addition to Doc 55

"The State should undertake a corresponding commitment to the Agency."

2 OR 26

U.S.: "...the addition of the sentence [above would]...provide for a reciprocal undertaking by the State... The addition would make necessary a change in the title of Sub-section 9(b) [to International responsibility]."

4 OR 26

F.R.G.: "...international conventions...did not contain a limitation of the term in regard to persons suffering damage ['arising out of a nuclear incident']. The stress was on the liability of an operator for damage to third parties... [T]he Agency's responsibility should not extend to damages to facilities..."

5 OR 26

Japan: "...wished to know whether the [additional] sentence... imposed an additional responsibility on a State."

6 OR 26

U.S.: "...the intention was to make it explicit that if a State was found responsible under international law, it should have an obligation corresponding to that of the Agency to make preparations... [N]o new obligation was created by the proposed language."

7 OR 26

U.S.S.R.: "...[T]he Agency's responsibility for damage should not be fixed in an agreement, and, that if damage were caused, the procedure for settlement should not differ from that which would have been applied under the safeguards agreements already concluded..."

9 OR 26

India: "...[T]o eliminate duplication of damage, the clause 'Subject to Section 9(a) above'...would have to be retained and... 'other than damage arising out of a nuclear incident' in [Doc 55] deleted."

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10 OR 26

F.R.G.: International law was adopted "...because such a provision would make the agreements more acceptable to States which had doubts about concluding an agreement."

11 OR 26

F.R.G.: "...safeguards agreements in connection with NPT represented a departure in principle from the Agency's existing safeguards agreements, which were concluded with States accepting nuclear material or assistance under collateral arrangements. The fact that a change in the scale of the application of safeguards was involved made it necessary for a liability clause to be included so as to facilitate the ratification of the agreements by the respective parliaments... [A] reciprocity clause might make an agreement less acceptable to a State."

12 OR 26

U.S.: "...the clause "Subject to Section 9(a) above" had been deleted,...because Sub-section 9(a), in providing that a State would extend its legislation or international conventions to the Agency, did not necessarily solve the problem of the Agency's responsibility for damage. The provision for making preparation implied that, notwithstanding national laws or international conventions, recourse against the Agency would be possible in the case of nuclear incidents..."

14 OR 26

U.K.: "...the most likely damage was not nuclear damage but damage to commercial interests. The Agency's liability was covered under Sub-section 9(a) only when a State was a party to an international convention or had relevant national legislation. However, the provisions of Sub-section 9(a) would not apply in the case of many States which had not enacted such legislation and the Agency would thus be at a disadvantage..."

15 OR 26

France: "...First there was the problem of nuclear incidents - a purely theoretical problem since Agency inspectors were not directly concerned with the operation of facilities. It was clear, however, that all damage arising out of a nuclear incident should be covered by the legislation of the State."

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16 OR 26

"Then there was the problem of "conventional" damage, as when an Agency inspector damaged a piece of apparatus through carelessness or - perhaps inadvertently - divulged confidential information. That was a problem of private international law. The situation was comparable to an accident caused by a vehicle belonging to the Agency whose liability was covered by insurance."

17 OR 26

"The third problem - that of the relations between one State and another or between a State and an international organization - fell within the purview of public international law. If these three problems were separated, it might be easier to find a solution."

19 OR 26

F.R.G.: "...Sub-section 9(a) did serve a useful purpose even in the absence of national legislation establishing the responsibility of the operator. Agency officials should under all circumstances enjoy the same protection as the nationals of the State... [T]he problem could [not] be solved in the way suggested by the French representative; in a bilateral agreement between the State and the Agency there was no reason for specifying that the State's law applied to its national facilities or for indicating in what way problems of private law should be solved. The only problems with which the agreement should be concerned were those which fell under the heading of public international law - in other words, the relations between the two parties."

21 OR 26

"The basic object of Sub-section 9(b) was to state explicitly that the Agency would have to make reparation for damage caused by it or by its officials and that the international courts would be competent. Several delegations had on a number of occasions stressed the need for such clarification so as to facilitate ratification of the agreements by parliaments."

22 OR 26

South Africa: "...The fear of disclosure of commercial secrets could have very serious consequences and the agreement would have to ensure more effective protection than that provided by the present system."

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30 OR 26

Belgium: "Responsibility for nuclear damage to the installation was not provided for under the compulsory liability system in force in Belgium; the operator had to insure himself against all damage which his facilities might sustain, including damage by Agency inspectors. However, ratification of the agreements might be made more difficult if damage arising out of a nuclear incident were excluded from the scope of Sub-section 9(b)."

33 OR 26

F.R.G.: "...damage to a facility caused by inspectors was the concern of the operator...who ought to insure himself against risks of that nature."

34 OR 26

Belgium: "...in Belgium there was no legal obligation on the operator...to take out special insurance... However, it was not clear why an operator should insure himself against damage that might be caused to his installation by an Agency inspector."

35 OR 26

Switzerland: "agreed with [Belgium]..."

38 OR 26

IAEA: "...It was...virtually impossible for an inspector to cause damage to a facility in the exercise of his duties."

Doc 57 U.S.S.R. Proposal

9(b) International responsibility

The question of the responsibility of the parties for possible damage, other than damage arising out of a nuclear incident, resulting from the implementation of safeguards under the Agreement, should be settled in accordance with international law.

39 OR 26

U.S.: "...suggested that... 'The question of the responsibility of the parties for possible damage,...' in the [U.S.S.R.] proposal... be replaced by... 'Any claim by one party to the Agreement against the other in respect of any damage,...'"

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40 OR 26

U.S.S.R.: "...accepted the modification...on the understanding that [it] did not in any way signify that damage arising out of a nuclear incident should be made good by some other procedure."

45 OR 26

IAEA: "...the Committee accept[ed] the Soviet proposal...with the change suggested by the U.S., on the understanding that the reservations expressed by...Belgium, South Africa, and Switzerland were duly recorded."

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INFCIRC/153 Paragraph 18

MEASURES IN RELATION TO VERIFICATION OF NON-DIVERSION

18. The Agreement should provide that if the Board, upon report of the Director General, decides that an action by the State is essential and urgent in order to ensure verification that nuclear material subject to safeguards under the Agreement is not diverted to nuclear weapons or other nuclear explosive devices the Board shall be able to call upon the State to take the required action without delay, irrespective of whether procedures for the settlement of a dispute have been invoked.

10(c) Doc 3

Measures to ensure continued verification of compliance

Should the Board decide that an action by the State is essential and urgent in order to discharge the State's obligations under the Agreement and to permit verification by the Agency, in accordance with the Agreement, of compliance with the fundamental undertaking by the State (see section 1 of this part of the document) the Board should be able to call upon the State to take the required action. Should the Board so request, then the State should carry out such an action without delay, irrespective of whether procedures for the settlement of a dispute had been invoked.

Doc 3

IAEA: "In suggesting that the Board should have the authority to request the State to take measures to permit the Agency to verify continuing compliance with the fundamental obligation of the State, account has been taken of similar provisions in the vast majority of the Agency's Safeguards agreements. In the context of NPT this function of the Board has been specifically related to the undertaking not to divert nuclear material. In fact, most existing Agency Safeguards Agreements provide for a greater degree of authority for the Board as they contain a provision on the following lines: 'Decision of the Board concerning the implementation of this Agreement...shall, if they so provide, be given effect immediately by the Parties, pending the final settlement of any dispute'. It may be expected that any necessary decisions would be taken by the Board without delay, and it is assumed that it is in the interest of all Parties to NPT that there be an efficient and quick mechanism to decide on any necessary measures so as to provide them with the continued assurance that there is no diversion of nuclear material.

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23 OR 15

U.K.: "Referring to the second sentence of Sub-section 10(c) and to the third sentence of the (IAEA) comment,...expressed doubts as to the wisdom of trying to make requests by the Board mandatory on States..."

24 OR 15

U.S.: "...the mandatory nature of a request by the Board could be made acceptable by properly circumscribing the 'action' to be taken by the State. The kind of action which the Board could call upon a State to take was indicated in Article XII.A.6 of the Statute."

Doc 45 F.R.G. Proposal

Should the Board, upon report of the Director General, decide that an action by the State is essential and urgent in order to ensure verification that source or special fissionable material is not diverted to nuclear weapons or other nuclear explosive devices, the Board should be able to call upon the State to take the required action without delay, irrespective of whether procedures for the settlement of a dispute had been invoked.

7 OR 20

F.R.G.: "...[S]ince Article XII of the Statute clearly prescribed that, in a case of the type in question, the inspector was to report to the Director General, who was in turn to report to the Board of Governors and that only then should the Board take action...it [was] useful to introduce that provision..."

10 OR 20

"Differences of opinion on matters of procedure with regard to safeguards agreements should be dealt with...through consultation and then, in the event of failure to reach agreement through arbitration. It would...be appropriate that, in the case of a dispute, the Board, as the principal organ of one of the parties, should be entitled to pass judgement. That procedure...could be used where urgent action was required.

12 OR 20

U.S.: "...The source or special fissionable material mentioned in...[Doc 45] was doubtless intended to refer to the nuclear material required to be safeguarded under the agreement which was mentioned in other sections which had already been approved."

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14 OR 20

U.S.: "...[A]ny State that had concluded a safeguards agreement with the Agency would be bound by the normal principles of international practice to treat any request for action made by the Board with utmost seriousness..."

16 OR 20

Doc 45 was accepted.

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INFCIRC/153 Paragraph 19

19. The Agreement should provide that if the Board upon examination of relevant information reported to it by the Director General finds that the Agency is not able to verify that there has been no diversion of nuclear material required to be safeguarded under the Agreement to nuclear weapons or other nuclear explosive devices, it may make the reports provided for in Article XII.C of the Statute and it could also take other measures provided for in that Article. The Board might also determine that there is non-compliance and take the measures provided for in that Article if the State does not comply with a request by the Board to take an action of the type described in sub-section 10(c) above.

Doc 3

IAEA: "While all the other Safeguards Agreements of the Agency refer in a general way to Article XII.C of the Statute, it would appear that the circumstances for a determination of non-compliance by the Board should be specifically linked to the verification task of the Agency. The Agreement could foresee that the Board would make a determination of non-compliance if there is diversion of nuclear material. The Board might also come to such a conclusion and invoke Article XII.C if a decision by the Board, deemed essential and urgent in order to enable verification of continuing compliance with the undertaking not to divert material, is not carried out by the State.

Any such determination by the Board would constitute a part of the international verification process performed by the Agency (in particular as regards the confirmation or non-confirmation of the findings in an inspection report). Article XII.C of the Statute foresees reports by the Board to all Member States, the Security Council and the General Assembly of the United Nations in the event of non-compliance. The actual determination of any non-compliance or any action taken by the Board under Article XII.C would not be subject to review by the arbitral tribunal referred to below in view of the Statutory authority of the Board to make such a determination."

29 OR 15

Italy: "...there was a juridical imbalance between the respective positions of the Agency and the States, which should - at least in principle - be on the same level."

31 OR 15

U.S.S.R.: "...the juridical imbalance...was inevitable in a situation where one party was controlling certain activities of another."

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33 OR 15

Japan: [should]...the disappearance of a significant amount of nuclear material, i.e., [MUF]...be regarded as non-compliance... [O]nly a diversion for the purpose of manufacturing nuclear weapons should be treated as non-compliance."

35 OR 15

IAEA: "...[T]he removal of nuclear material from safeguarded activities, except in accordance with procedures to be set forth in agreements...might be considered to imply 'diversion'."

36 OR 15

"...It would be for the Board to analyze the report of the Director General on any [unidentified] loss or removal and to determine whether, in light of relevant information and circumstances, the loss or removal did in fact constitute 'diversion'."

37 OR 15

"In accordance with Sub-section 10(d), a determination by the Board that there had been 'diversion' would automatically, constitute a finding of non-compliance'. In accordance with Sub-sections 10(c) and 10(d), if the State were to make it impossible for the Agency to effectively verify compliance...that might also have to be considered by the Board to constitute 'non-compliance'..."

38 OR 15

India: "...if a certain quantity of nuclear material was not entered in the accounts, the burden of proving a diversion lay with the Agency..."

Doc 46 U.K. Proposal

Should the Board, upon examination of relevant information reported to it by the Director General, find that the Agency is not able to verify that there has been no diversion of nuclear material required to be safeguarded under the Agreement, to nuclear weapons or other nuclear explosive devices, it may make the report provided for in paragraph C of Article XII of the Statute and may also take, where applicable, the other measures provided for in that paragraph. In taking such action the Board shall take account of the degree of assurance provided by the safeguards measures that have been applied and shall afford the State every reasonable opportunity to furnish the Board with any necessary reassurance.

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17 OR 20

U.K.: "...The subject in question was of crucial importance, and the basic undertaking in Section 1, especially the key words '...for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosives devices', should be borne in mind in considering [the U.K.] proposal..."

18 OR 20

"In that connection, the question was what functions the Agency would have to perform under the Statute to ensure that the basic undertakings under Sections 1 and 2 were discharged, and that was covered in his delegation's proposal. It was not enough to speak merely of non-compliance with the fundamental undertaking; given the nature of that undertaking, the Agency's functions in that regard must be clearly specified. The question was what should be done if the Agency was unable to verify that there had been no diversion of nuclear material to nuclear weapons or other nuclear explosive devices. Article XII.C of the Statute provided for measures to be taken in the event of non-compliance with agreements referred to in that Article. ...[T]he same measures should apply in analogous cases under NPT. The words "where applicable" had been used in [the U.K.] proposal to indicate that, in the case of some States, there would be no basis for taking measures; for example where the Agency did not extend assistance to a State. Other measures, however, would be applicable in the case of any State which had concluded a safeguards agreement with the Agency."

19 OR 20

"The main point was not the action to be taken by the Board but the circumstances under which such action should be taken and the procedures to be followed. Although it was in theory possible that cases would arise where the Board would be in a position to determine that the State had not complied with the fundamental undertaking, it would not be realistic to expect such a clear-cut finding. In the first place, it was unlikely that the Agency would be able to prove diversion of nuclear material, and secondly the definition was not broad enough to cover all eventualities. One could envisage circumstances in which a difference of opinion might arise between the Agency and the State, for example on accounting for nuclear materials. Although the Agency might not be in a position to prove that there had been diversion, some suspicion might exist and further inspections and reports might be required. The decision would then have to be taken whether such further reports should be provided, and if provided, whether they were to be accepted as satisfactory. In cases where no

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proof was possible but a suspicion nevertheless remained, it was important to achieve a balanced solution. The Agency on the one hand should have its rights under Article XXI.C of the Statute preserved, and at the same time the State required a measure of protection. The State required in fact to be assured that severe action would not be taken where the question at issue was trivial, i.e., where it did not go to the heart of the matter, namely diversion of nuclear material safeguarded under the agreement. He felt that the the first sentence in the proposal achieved the necessary balance in the neatest possible way by bringing the question of non-compliance into line with the fundamental undertaking, and he hoped that delegations would be able to give the proposal their support."

20 OR 20

"...[the U.K.] proposal provided for a formal report by the Director General to the Board, which would arrive at a finding - a quasi-judicial form of procedure appropriate to the case. At the same time certain procedural provisions had been incorporated to ensure that such action would be taken in the most objective manner possible and it was expressly laid down that in taking such action the Board should take account of the degree of assurance provided by the safeguards measures that had been applied and should afford the State every reasonable opportunity to furnish the Board with any necessary reassurance."

21 OR 20

"...Sub-section 10(d) in [Doc 46] was accepted."

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INFCIRC/153 Paragraph 20

INTERPRETATION AND APPLICATION OF THE AGREEMENT AND SETTLEMENT OF DISPUTES

20. The Agreement should provide that the parties thereto shall, at the request of either, consult about any question arising out of the interpretation or application thereof.

10(a) Doc 3

Interpretation and application of the Agreement

Consultation procedure

Any question arising out of the interpretation or application of the Agreement would first be the subject of consultations between the Parties.

1 Doc 42 Belgium Proposal

The Parties shall, at the request of either, consult about any question arising out of the interpretation or application of this Agreement.

17 OR 23

"...Sub-section 10(a) [Doc 42] was accepted."

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INFCIRC/153 Paragraph 21

21. The Agreement should provide that the State shall have the right to request that any question arising out of the interpretation or application thereof be considered by the Board; and that the State shall be invited by the Board to participate in the discussion of any such question by the Board.

10(b) Doc 3

Participation by the State in discussions of the Board

The State should have the right to request that any question arising out of the interpretation or application of the Agreement be considered by the Board. The State should also be invited by the Board to participate in the discussion of any such question by the Board.

Doc 3

IAEA: "It appears desirable that States which are not Members of the Agency or which are not represented on the Board of Governors at a particular time should have the possibility to request consideration by the Board of any question relating to their Agreement with the Agency and to participate in discussions of the Board. In this connection Rules 15 and 50 of the Board's Rules of Procedure are relevant. An amendment to Rule 15(c) might be necessary so as to provide also for the inclusion of an item in the provisional agenda to the request of a non-Member which is Party to such an Agreement."

20 OR 23

Belgium: "...raise[d] the question of the right of the State concerned to participate in the discussions of the Board on the interpretation or application of agreements and the participation of other States in the discussions of the Board when the State concerned considered that representation on the Board was not sufficient."

22 OR 23

India: "...the wording of the second sentence in the Sub-section should be 'The State shall be invited...'"

27 OR 23

"...Sub-section 10(b) in [Doc 3] as amended...was accepted."

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INFCIRC/153 Paragraph 22

22. The Agreement should provide that any dispute arising out of the interpretation or application thereof except a dispute with regard to a finding by the Board under Paragraph 19 above or an action taken by the Board pursuant to such a finding which is not settled by negotiation or another procedure agreed to by the parties should, on the request of either party, be submitted to an arbitral tribunal composed as follows; each party would designate one arbitrator, and the two arbitrators so designated would elect a third, who would be the Chairman. If, within 30 days of the request for arbitration, either party has not designated an arbitrator, either party to the dispute may request the President of the International Court of Justice to appoint an arbitrator. The same procedure would apply if, within 30 days of the designation or appointment of the second arbitrator, the third arbitrator had not been elected. A majority of the members of the arbitral tribunal would constitute a quorum, and all decisions would require the concurrence of two arbitrators. The arbitral procedure would be fixed by the tribunal. The decisions of the tribunal would be binding on both parties.

11 Doc 3Settlement of disputes

Any dispute arising out of the interpretation or application of this Agreement, except a dispute with regard to a determination of non-compliance by the Board or an action taken by the Board pursuant to such a determination under sub-section 10(d) above, which is not settled by negotiation or another procedure agreed to by the Parties should, on the request of either Party, be submitted to an arbitral tribunal composed as follows; each Party would designate one arbitrator, and the two arbitrators so designated would elect a third, who would be the Chairman. If, within 30 days of the request for arbitration, either Party has not designated an arbitrator, either Party to the dispute may request the President of the International Court of Justice to appoint an arbitrator. The same procedure should apply if, within 30 days of the designation or appointment of the second arbitrator, the third arbitrator has not been elected. A majority of the members of the arbitral tribunal should constitute a quorum, and all decisions should require the concurrence of two arbitrators. The arbitral procedure shall be fixed by the tribunal. The decisions of the tribunal should be binding on both Parties.

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IAEA: "...[D]isputes would come before the tribunal only if the Parties did not agree to another mode of settlement. The present text would allow for the conclusion of the necessary additional legal instruments (without an amendment to this Agreement) should the Parties to Agreement concluded with the Agency pursuant to Article III.1 of NPT decide, at a future date, that the establishment of a court or similar institutional machinery for the settlement of disputes was preferable to ad hoc tribunals."

"With the exception spelt out in the above clause, any dispute arising out of the interpretation or application of the Agreement would be covered by the procedure foreseen. This would include matters relating to the apportionment of expenses between the Parties."

"The tribunal's competence would also include the competence of reviewing, at the request of the State, any decision by the Board of the type covered by section 10(c) above and of making a decision on the matter at issue which will then be binding on both Parties."

39 OR 15

F.R.G.: "...special arbitral tribunals could arrive at different decisions in similar cases and...it would be preferable to set up a permanent international tribunal."

40 OR 15

IAEA: "...under Article XII.C of the Statute only the Board would have the prerogative of determining whether or not there had been non-compliance with fundamental undertakings under the safeguards agreement; on the other hand, the arbitral tribunal would have the task of settling disputes which might arise out of the interpretation or application of the agreement."

41 OR 15

U.K.: "...[T]he first sentence of Section 11 as presently worded, might be construed to mean that the state would not have an opportunity for putting its case and proving it although it had failed to apply certain provisions of its Agreement with the Agency, it had not diverted nuclear material for the purposes prohibited by NPT... [A] permanent judicial organ should be set up..."

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42 OR 15

Spain: "...Belgium had proposed the creation of a Special Board, while the U.K. advocated the establishment of a permanent arbitral tribunal... [T]hat body could be a permanent safeguards committee, on which all States that had agreed to submit to inspection would be represented.

44 OR 15

Belgium: "...A State which had accepted NPT safeguards should not be made to appear as an accused before its judges. One way of avoiding such a situation would be for all other States that had concluded safeguards agreements with the Agency to be represented when such a State was called upon to explain before the competent body how it interpreted the agreement."

46 OR 15

Egypt: "If disputes were limited to the application of the agreement, no useful purpose would be served by setting up a permanent body, the operations of which would entail heavy expenditure, when there was already an International Court of Justice..."

5 Doc 49 F.R.G./U.K. Proposal

Any dispute arising out of the interpretation or application of this Agreement, including any dispute arising out of a claim for reparation under Section 9 which is not settled by negotiation or another procedure agreed to by the Parties should, on the request of either Party, be submitted to an arbitral tribunal composed as follows: each Party would designate one arbitrator, and the two arbitrators so designated would elect a third, who would be the Chairman. If, within 30 days of the request for arbitration, either Party has not designated an arbitrator, either Party to the dispute may request the President of the International Court of Justice to appoint an arbitrator. The same procedure should apply if, within 30 days of the designation or appointment of the second arbitrator, the third arbitrator has not been elected. A majority of the members of the arbitral tribunal should constitute a quorum, and all decisions should require the concurrence of two arbitrators. The arbitral procedure shall be fixed by the tribunal. Upon application by either Party, the arbitral tribunal shall be empowered, if it finds such action necessary in order to ensure that the Agreement continues to function effectively, to decide upon interim measures which shall have immediate effect pending the final settlement of the dispute. The decisions of the tribunal should be binding on both Parties.

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28 OR 23

U.K.: "...[T]he proposed formulation...was in line with the standard international practice in regard to settlement of disputes by arbitration. The first sentence in the original Section 11, which excepted a dispute with regard to a determination of non-compliance by the Board, had been deleted since such disputes might need impartial settlement and were thus a matter for an arbitration tribunal. The proposed version also provided for arbitration in the case of disputes regarding reparation under Section 9..."

38 OR 23

U.S.: "...The Statute did not make any provision that decision of the Board should not be subject to review by any body except, as implied by Article XIII.C, the Security Council or General Assembly of the U.N...."

42 OR 23

U.S.S.R.: "...regretted that the sponsors of the proposal [Doc 49] had omitted the exception clause contained in the original Section 111... [T]he Secretariat had acted wisely in making an exception, a step which was also in keeping with the Statute."

43 OR 23

India: "...the exception clause should be retained..."

45 OR 23

Bulgaria: "...against the idea that a dispute should be submitted to an arbitral tribunal on the request of only one of the parties..."

48 OR 23

U.K.: "...Arbitration represented a last resort, and the decision of the arbitral tribunal should not be submitted for approval to the Board of Governors; hence the deletion by the sponsors of...'except a dispute...'etc. had been intentional."

54 OR 23

U.S.: "...did not believe that the establishment of the machinery envisaged would involve any 'standing' expenditure, and... the persons involved would only require remuneration with respect to cases where the machinery was actually used."

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58 OR 23

F.R.G.: "...under the terms of the proposal it would be for the Board to take a decision, and the Secretariat would have quite enough time to study the problem."

1 OR 27

U.K.: "...[The proposal in 5 Doc 49] was not in accordance with juridical principles of the Agency, itself a party to the agreement to have a right [of decision as to whether or not there was non-compliance]." (withdrew proposal)

6 OR 27

U.K.: "...[T]he States concerned would not only be represented when the Board discussed their case but would also have in effect a further right of appeal when the Board reported its finding to other bodies in accordance with Article XII.C of the Statute."

8 OR 27

U.S.S.R.: "...[I]nternational law provided various ways of settling disputes, but the method of settlement should be acceptable to both parties. Basically, in the context of the safeguards agreement, disputes should as far as possible be settled by consultation between the parties concerned, without recourse to international courts..."

15 OR 27

U.K.: "...the President of the International Court of Justice would be the most appropriate person to appoint an arbitrator..."

26 OR 27

U.S.S.R.: "...recourse to the services of the Secretary-General of the United Nations was a procedure not excluded by precedent. In Section 11 the phrase 'either Party to the dispute may request the President of the International Court of Justice to appoint an arbitrator' left it to the parties to decide whether they would do so or not. They might prefer to choose some other independent person. If the phrase were amended to read 'may request the President of the International Court of Justice or the Secretary-General of the United Nations to appoint an arbitrator', no harm would be done; the fact that one of the two persons in question was concerned with political matters and that the other was not was immaterial."

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28 OR 27

U.K.: "...the purpose of the provision under discussion was to ensure that if one party to the dispute wished to prolong it and avoid settlement, the other could have recourse to arbitration. At least one of the parties would always designate an arbitrator within 30 days as that would be in its interest; if the other party failed to do so, it could then request the President of the International Court of Justice to appoint an arbitrator. The same procedure would be followed if the parties were unable to agree on the third arbitrator."

43 OR 27

IAEA: "...formulation of Section 11 in Part I of [Doc 3],...was acceptable, on the understanding that if both parties to a dispute agreed, they might request the Secretary General of the United Nations to assume the role foreseen in that formulation for the President of the International Court of Justice."

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INFCIRC/153 Paragraphs 23-26

FINAL CLAUSES

Amendment of the Agreement

23. The Agreement should provide that the parties thereto shall, at the request of either of them, consult each other on amendment of the Agreement. All amendments shall require the agreement of both parties. It might additionally be provided, if convenient to the State, that the agreement of the parties on amendments to Part II for the agreement could be achieved by recourse to a simplified procedure. The Director General shall promptly inform all Member States of any amendment to the Agreement.

Suspension of application of Agency safeguards under other agreements

24. Where applicable and where the State desires such a provision to appear, the Agreement should provide that the application of Agency safeguards in the State under other safeguards agreements with the Agency shall be suspended while the Agreement is in force. If the State has received assistance from the Agency for a project, the State's undertaking in the Project Agreement not to use items subject thereto in such a way as to further any military purpose shall continue to apply.

Entry into force and duration

25. The Agreement should provide that it shall enter into force on the date on which the Agency receives from the State written notification that the Statutory and constitutional requirements for entry into force have been met. The Director General shall promptly inform all Member States of the entry into force.

26. The Agreement should provide for it to remain in force as long as the State is Party to the Treaty on the Non-Proliferation of Nuclear Weapons.

12 Doc 3

Final Clauses

Amendment of the Agreement

The Parties should, at the request of either of them consult each other on amendment of this Agreement. Such consultations should take place if NPT is amended. Furthermore, amendments of the Agency's safeguards system might require consultations. The implementation of the Agreement should be reviewed at the request

of either Party. It might be provided that amendments to Part II could be made by agreement between the competent authority of the State and the Director General of the Agency. All amendments should require the agreement of both Parties.

Doc 3

IAEA: "A simplified procedure for amending Part II might add to the flexibility of the Agreement and make it possible to take technical developments readily into account, including amendments to the Safeguards Document."

13 Doc 3

Suspension of other Safeguards Agreements with the Agency

The application of Agency safeguards in the State under other Safeguards Agreements with the Agency should be suspended while this Agreement is in force. If the State has received assistance from the Agency for a project, the State's undertaking in the Project Agreement not to use ~~items~~ subject to the Project Agreement in such a way as to further any military purpose would continue to apply.

Doc 3

IAEA: "The Agency would suspend the application of safeguards under Agreements to which the Agency was the only other Party (Project Agreements and Unilateral Submission Agreements). In the case of Safeguards Transfer Agreements, the consent of the second State Party would also be necessary for such suspension and would be sought. It is hoped that in the case of Co-operation Agreements (to which the Agency is not a party), agreement for the suspension of safeguards would be reached between the Parties."

14 Doc 3

Entry into force

The Agreement would enter into force on the date on which the Agency receives from the State written notification that the State or and constitutional requirements for the entry into force have been met, but not later than 18 months after the date of the initiation of negotiations. The Director General of the Agency should promptly inform all Member States of the entry into force of the Agreement.

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15 Doc 3Duration

The Agreement should remain in force as long as the State is a Party to NPT. It should be provided that the Agency would be relieved of its undertaking to apply safeguards if the Board determined that the Agency is not in a position to apply safeguards as foreseen in the Agreement. It could also be foreseen that the Agency could terminate the Agreement on giving notice of termination under those circumstances. In either case all Member States should be promptly informed.

54 OR 15

U.S.: re Section 13 "...according to which 'the application of Agency safeguards in the State under other Safeguards Agreements with the Agency should be suspended while this Agreement is in force'. Only in the [IAEA] comment on that section was it explained that in the case of Safeguards Transfer Agreements the consent of the second State party to the agreement would also be necessary for a suspension of the application of safeguards. That clarification...should be spelt out in the agreement itself...[Re Section 14] suggested that the words 'but not later than 18 months after the date of the initiation of negotiations' should be deleted..."

55 OR 15

Mexico: "...the first sentence of Section 13...gave the impression that the application of safeguards under all other agreements would be suspended while the agreement now under consideration was in force. Did the drafters of that provision mean to include agreements of wider scope, such as those concluded under the [Tlatelolco Treaty] which prohibited the use of nuclear energy for any military purposes whatsoever?... [A] document which took account of the requirements of the two Treaties and which included supplementary clauses applicable to States party to the Tlateloloco Treaty."

57 OR 15

U.S.S.R.: "...the Board should be kept informed of any amendments that might be introduced in the agreement. Thus the last sentence of Section 12 should be supplemented by the words 'and should subsequently be brought to the attention of the Board of Governors'."

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60 OR 15

IAEA (Legal): "...the wording of Section 12 was not intended to limit in any way the circumstances which might give rise to an amendment of the agreement. The section was merely that the parties should consult each other, particularly in the event of amendment of NPT, since any modification of that instrument might have consequences for the Agreement. In fact Section 12 was intended primarily to make provision for consultations; the mention of circumstances in which the Agreement might be amended was largely illustrative."

61 OR 15

"...[F]or amendment of that somewhat more technical part of agreements it would be wise to provide for a simplified procedure. However, the drafters had to bear in mind that in certain States constitutional provisions would make it impossible to apply such a procedure, whereas in others...for example, the Atomic Energy Commission or Ministry would be empowered to approve amendments to the technical provisions of agreements. On the Agency's side ...it would be for the Director General to decide whether his powers gave him authority to approve an amendment in the Agency's name without referring it to the Board."

63 OR 15

F.R.G.: "...Section 12 could be omitted... [I]t was not necessary to provide for consultations between the parties in the event of amendment of the safeguards system... With regard to Section 13,...a clause of that kind should not appear in an agreement in connection with the NPT unless the State concerned had already concluded a safeguards agreement with the Agency. In that way, the problem raised by...Mexico would automatically be solved."

1 OR 16

U.K.: "...[T]here should be some provision relating to notification when amendment to either Part I or Part II were made; the Director General could arrange for such notification on the lines that were provided for in Section 14."

2 OR 16

"...[A] legal difficulty would be involved in the case of tripartite safeguards agreements. A bilateral agreement relating to the [NPT] could not override an existing tripartite agreement. To avoid inconsistencies in regard to the Agency's obligations

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under the two types of agreement, it might therefore be better not to refer explicitly to the amendment, suspension or termination of transfer agreements. It could perhaps be made clear, as a matter of policy, that in the case of existing tripartite agreements the interest of the third party - the supplying party - would be taken into account... [C]are should be taken to ensure that there was no contradiction between [Sections 7 and 13]..."

3 OR 15

Re Section 14...it would be better to delete the reference to the time-limit of eighteen months..."

4 OR 15

Re Section 15'...it was only logical that the agreement should remain in force so long as the State was a party to NPT... NPT itself clearly required that non-nuclear-weapon States...enter into a safeguards agreement."

5 OR 16

U.S.S.R.: "...a State should [not] be allowed to withdraw from its obligations under NPT and...[made suggestion] to delete the whole of Section 15 except for the first sentence."

9 OR 16

India: Re Section 12 "...since the initial safeguards agreements would be concluded in accordance with the Agency's normal administrative arrangements, it would be difficult to accept a simplification of the procedure or amending Part II... [A]ny amendment to an agreement should take place in accordance with the normal procedures."

11 OR 16

U.S.: Re Section 15 "...Since it was advisable to avoid a situation in which the Agency could terminate safeguards or be relieved of its undertaking to apply them, while no provision was made for corresponding opportunities for the State, the suggestion by the Soviet representative would appear to offer the best solution. It was unacceptable for a State to be able to discontinue acceptance of safeguards while remaining a Party to NPT... Section 15 should consist of the first sentence only."

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18 OR 16

Australia: "...there were other situations where a State might consider that safeguards should not be applied because of special circumstances, such as war, civil war, etc... Since a State could not be excluded from NPT merely because it was not in a position to implement the safeguards agreement, a difficult situation could arise where the agreement remained formally but not actually, in force."

20 OR 16

U.S.S.R.: "...Sub-section 10)b),...recognized the right of the State to request that any question arising out of the interpretation or application of the agreement be considered by the Board with the participation of the State concerned."

21 OR 16

U.K.: "...[A]greed with the clarification given by...the Soviet Union... The main thing was not whether the agreement should be suspended when a dispute arose but that machinery for an amicable settlement should be established. Such machinery should be of interest to States as it, would provide an opportunity for rapid settlement."

22 OR 16

Egypt: "... The point at issue was what a State's legal position would be and whether it should be compelled to comply with the safeguards agreement in the period between the occurrence and settlement of a dispute..."

23 OR 16

India: "...The first sentence in Section 15...left no room for an intermediate period, although such periods were unavoidable in respect of international agreements..."

24 OR 20

India: Re Section 12 "...[A] simplified procedure might be desirable for a State but not for the Agency. Any amendment might have far-reaching implications for other agreements and any changes in Part II should be discussed by the Board to ensure uniformity of procedure."

27 OR 20

F.R.G.: "...[T]he Director General should promptly inform all Member States, and not merely the Board, of any amendment to the agreements...."

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31 OR 20

Japan: "...[I]t should be left to the Board to decide whether its prior approval was necessary or whether the Director General should hold negotiations directly..."

32 OR 20

U.K.: "...[T]he Board should decide on the internal procedure to be followed within the Agency concerning amendments."

Doc 48 U.S. Proposal for Introductory Clause in 13

Where applicable and where the State desires such a provision to appear, the Agreement should provide that the application of Agency safeguards...

34 OR 20

U.S.: Doc 48 covered three points: "...First, the Agency could not suspend an agreement to which another State, not party to a safeguards agreement in connection with NPT, was a party. Secondly, the provisions of the Section under consideration could not be applicable to other States which had no safeguards agreements with the Agency and which might not, therefore, welcome the inclusion of such provisions in their agreements with the Agency. Thirdly, the States which had an agreement with the Agency, such as those that were party to the (Tlatelolco Treaty), might not like to have such agreements suspended or superseded or might wish to be treated in a manner different from that prescribed in Section 13."

38 OR 20

"Section 13 as formulated in Part I of [Doc 3] and...the change... in [Doc 48] was accepted."

40 OR 20

"Section 14 as formulated in [Doc 3] but with the deletion [of 'but not later than 18 months after the date of the initiation of negotiations'] was accepted."

43 OR 20

Section 15 was accepted with the deletion of the last three sentences."

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Doc 51 IAEA Proposal

The parties should, at the request of either of them, consult each other on amendment of the Agreement. All amendments should require the agreement of both parties. It might additionally be provided, if convenient to the state, that the agreement of the parties on amendments to Part II could be expressed by a simplified procedure. The Director General should promptly inform all Member States of any amendment to Part I or to Part II of the Agreement.

30 OR 22

Japan: "...the word 'express' in the third sentence seemed... imprecise."

32 OR 22

"...on the understanding [that the word expressed would be replaced] the proposed formulation of Section 12 was accepted."

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PART II

INFCIRC/153 Paragraph 27

INTRODUCTION

27. The Agreement should provide that the purpose of Part II thereof is to specify the procedures to be applied for the implementation of the safeguards provision of Part I.

Doc 62/Rev. 1

INTRODUCTION

1. The Agreement should specify the implementation of the safeguards provisions of Part I of the Agreement and lay down the procedures therefore. It should also provide that in this implementation use shall be made of the three safeguards measures:

- (i) Material balance accountancy;
- (ii) Containment; and
- (iii) Surveillance.

2. It should be specified that safeguards measures shall be applied in accordance with the Agency's Safeguards System, particularly the general procedures laid down therein with respect to examination of design information, maintenance of records, provision of reports and inspections.

30 OR 35

U.K.: "...it was a mistake to include in [the Introduction] substantial references to the philosophy of safeguards...[propose] that the Introduction should read: 'The purpose of this part of the Agreement is to specify the procedures to be applied in the implementation of the safeguards provisions of Part I'." [22/68; delete Paragraph 2 in 22/62]

1 OR 36

Japan: "...the Introduction ought to be a simple and clear statement of the character of Part II agreements..." [proposed amendment 1 Doc 67].

5 OR 36

U.K. formulation accepted.

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INFCIRC/153 Paragraphs 28-30

OBJECTIVE OF SAFEGUARDS

28. The Agreement should provide that the objective of safeguards is the timely detection of diversion of significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons or of other nuclear explosive devices or for purposes unknown, and deterrence of such diversion by the risk of early detection.

29. To this end the Agreement should provide for the use of material accountancy as a safeguards measure of fundamental importance, with containment and surveillance as important complementary measures.

30. The Agreement should provide that the technical conclusion of the Agency's verification activities shall be a statement, in respect to each material balance area, of the amount of material unaccounted for over a specific period, giving the limits of accuracy of the amounts stated.

7 Doc 62/Rev. 1

7. This part of the Agreement should present the technical objective of the safeguards procedures which must enable the Agency to infer from the verification activity it has carried out in respect of a given material balance area containing nuclear material subject to safeguards under the Agreement, that over a certain period, no more than a stated amount of the nuclear material involved is unaccounted for.

7.1 Doc 62/Rev. 1

IAEA: "The verification of nuclear material is the process where the validity of all information on quantities and locations of nuclear material provided by national systems of nuclear material control can be established by comparison with actual nuclear material flow and inventories. This requires that correctness, accuracy, and credibility of the information be determined by application of the three safeguards measures."

7.2 Doc 62/Rev. 1

"A precise statement of the technical purpose of safeguards supplies the basis for elaboration of procedures and helps to clarify how these procedures should be implemented and further specified in the Subsidiary Arrangements, which should also indicate

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how use is to be made of national systems of accounting for and control of nuclear material. The balance in the application of the various safeguards measures by facility operators, States, and the Agency will vary, depending on the situation, taking into account that States will have material control systems of different types and at different stages of development..."

7.3 Doc 62/Rev. 1

"...the verification process cannot give direct proof of diversion but only indicate the possibility of a diversion through elimination of all other explanations. It will thus involve a final technical judgement by the Agency whether explanations offered for deficits or excess amounts of material appear convincing..."

2 Doc 67 Japan Proposal

TECHNICAL PRINCIPLES

2. The Agreement should provide that the technical objectives of the safeguards procedures is to enable the Agency to ascertain, through the process of verifying, including independent methods, findings of the State's system of accounting for and control of nuclear material subject to safeguards under the Agreement, that over a certain period, no more than a stated amount of the nuclear material involved is unaccounted for in respect of a given material balance area containing such nuclear material.

2.A. It should be provided that in implementing the procedures laid down in this Agreement, use shall be made of the three categories of safeguards measures:

- (1) Material balance accountancy;
- (2) Containment; and
- (3) Surveillance.

2 OR 36

Japan: "...The substantive parts of Paragraphs 1 and 2 [of Doc 62] dealt with some of the fundamental technical concepts of implementation, and Paragraph 7 set out the basic technical objectives of the safeguards procedures. [The Japanese] delegation wished to combine those basic technical concepts in a new section ...and to incorporate into another principle, namely that the Agency should verify the findings of national control systems."

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Doc 72 F.R.G./U.K. Proposal

"The technical objective of safeguards is to enable the Agency to deduce from the verification activity it has carried out in respect of a given material balance area, that over a specified period, no more than an agreed amount of the nuclear material involved is unaccounted for."

Doc 75 U.S. Proposal

"It should be provided that the technical objectives of the safeguards procedures are to enable the Agency to detect diversion or to determine whether there is material unaccounted for in such amounts as to give reasonable cause to suspect diversion."

54 OR 36

U.K.: "...It was exceedingly difficult to assess quantities of MUF; the possibility of a diversion could appear only through the elimination of all other possible explanations. The proposed text attempted to reflect the fact and to stress the requirement of judgement by the Agency;...to tighten up the provision suggested by the [IAEA] [replace] the words 'certain' and 'stated' by the words 'specified' and 'agreed' respectively.

56 OR 36

U.S.: "...The technical objective was to prevent diversion, and the provision dealing with it must include detection procedures and not merely procedures relating to material accountancy."

57 OR 36

U.S.: "...it [was] undesirable to include any specified or fixed amount of [MUF] in agreements... It was up to the Agency to take all factors into account and to establish when the detected amount of MUF was sufficiently high to cause concern."

61 OR 36

IAEA: "...The 'stated amount' was not to be understood as a predetermined amount: it would become known only after, and as a result of, a complete safeguards verification operation over a certain period. It was highly improbable that the Agency would ever be able to state that 100% of a batch of safeguarded material had been accounted for within a given area; the normal imprecision of measurement would make such an assertion doubtful..."

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63 OR 36

Canada: "...objective could be achieved by the application of three basic safeguards measures: material balance accountancy, containment, and surveillance. One primary indicator of possible diversion in material accountancy was MUF. However, there were several other indicators..."

68 OR 36

F.R.G.: "...the technical objective set forth in [F.R.G./U.K.] amendment was not the general objective of safeguards... [S]uch a statement would be more appropriate in Part I. For the technical part,...it was necessary to have some quantitative assessment, and the two delegations thought that the phrase 'agreed amount' or 'specified amount' would serve... [T]he amount would [not] be predetermined, but rather it would be determined in the light of experience of a given facility. The opportunity would also be offered of making a quantitative assessment."

70 OR 36

U.K.: "...it seemed reasonable that the word 'stated' should be replaced by the word 'given'...to remove any impression that the amounts in question were to be fixed in advance. A distinction should be made between the manner of determining an appropriate value for MUF in a particular facility in the first place and the manner in which MUF was to be evaluated when it was later found to occur..."

Doc 82 F.R.G./Japan/U.K. Proposal

OBJECT OF SAFEGUARDS

1.A. The objective of safeguards is the timely detection of diversion of significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons or nuclear explosive devices or for purposes unknown, and deterrence of such diversion by the risk of early detection.

1.B. To this end the Agreement should provide for the use of material accounting as a measure of fundamental importance, coupled with containment and surveillance as important complementary measures.

1.C. The technical conclusion of the Agency's verification activity in respect of each material balance area should be that, over a specific period, no more than a given amount of the nuclear material is unaccounted for.

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1 OR 37

U.K.: "...The intention was that some general paragraphs giving an idea of the object of safeguards should appear almost at the beginning of Part II and that prominence should then be given to national systems of accounting for and control of nuclear material, which States would have an obligation of establish under the provisions of Part I."

6 OR 37

South Africa: "...understood the term 'given amount' [in Paragraph 1.C] to mean the amount of MUF determined in the manner outlined [in 68 OR 36]. However, if the determinate of MUF was to have any significance, the amount must be compared with a 'reasonable' or 'appropriate' figure based on previous experience of the facility involved. The procedure to be followed for making such comparisons should be clearly laid down in Part II of agreements."

22 OR 37 Proposal To Redraft (Doc 84 Rev. 1)

France: "The technical conclusion of the Agency's verification activity is a statement of the amount of material unaccounted for and its limits of accuracy for each material balance area over a specific period."

42 OR 37

IAEA: "...The French text brought out the fact that MUF would have to be evaluated by safeguards work and could not be pre-determined."

50 OR 37

U.S.: "...The word 'coupled' in Paragraph 1.B...implied that measures of containment and surveillance were of only secondary importance, when in fact they deserved equal weight...'coupled' [should] be dropped."

Paragraphs 1.A, 1.B, and 1.C were accepted as amended by U.S. and France respectively.

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INFCIRC/153 Paragraphs 31-32

NATIONAL SYSTEM OF ACCOUNTING FOR AND CONTROL OF NUCLEAR MATERIAL

31. The Agreement should provide that pursuant to Paragraph 7 above the Agency, in carrying out its verification activities shall make full use of the State's system of accounting for and control of all nuclear material subject to safeguards under the Agreement, and shall avoid unnecessary duplication of the State's accounting and control activities.

32. The Agreement should provide that the State's system of accounting for and control of all nuclear material subject to safeguards under the Agreement shall be based on a structure of material balance areas, and shall make provision as appropriate and specified in the Subsidiary Arrangements for the establishment of such measures as:

- (a) A measurement system for the determination of the quantities of nuclear material received, produced, shipped, lost or otherwise removed from inventory, and the quantities on inventory;
- (b) The evaluation of precision and accuracy of measurements and the estimation of measurement uncertainty;
- (c) Procedures for identifying, reviewing, and evaluating differences in shipper/receiver measurements;
- (d) Procedures for taking a physical inventory;
- (e) Procedures for the evaluation of accumulations of unmeasured inventory and unmeasured losses;
- (f) A system of records and reports showing, for each material balance area, the inventory of nuclear material and the changes in that inventory, including receipts into and transfers out of the material balance area;
- (g) Provisions to ensure that the accounting procedures and arrangements are being operated correctly; and
- (h) Procedures for the submission of reports to the Agency in accordance with Paragraphs 59-69 below.

Doc 67 Japan Proposal

STATE'S SYSTEM OF MATERIAL CONTROL

2.B. The Agreement should provide that the State's system of accounting for and control of nuclear material shall meet the following requirements:

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- (a) The system shall be generally compatible with the technical objective and the procedure laid down in the Agreement so as to facilitate verification by the Agency of findings of the system; and
- (b) The application of appropriate measures of physical protection to the nuclear material subject to safeguards.

2.C. To the extent feasible, the State shall apply measures to verify findings of its national system of accounting for and control of nuclear material so as to ensure the maximum possible correctness and accuracy of the findings made available to the Agency.

3 OR 36

Japan: "...The State's system should be generally compatible with the technical objectives and procedures laid down in Part II and should entail responsibility for appropriate physical protection of nuclear material subject to safeguards. The State would also have the duty of verifying the findings of its own system to the extent feasible. The Agency, in deciding upon its own verification procedures, should take account of the technical efficacy of the State's control system."

Doc 82 Canada/Japan/F.R.G./U.K. Proposal

NATIONAL SYSTEM OF ACCOUNTING FOR AND CONTROL OF NUCLEAR MATERIAL

1.D. The agreement should provide that pursuant to Paragraph 7 of Part I the Agency, in carrying out its verification activities, shall make full use of the State's system of accounting for and control of nuclear material and shall avoid unnecessary duplication of the State's accounting and control activities.

1.E. The State's system of accounting for and control of nuclear material should be based on a structure of material balance areas covering all peaceful nuclear activities and make provision for the establishment of:

- (a) A measurement system for the determination of the quantities of nuclear material received, produced, shipped, lost or otherwise removed from inventory, and the quantities on inventory;
- (b) Programmes for the evaluation of precision and accuracy of measurements and the estimation of measurement uncertainty;

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- (c) Procedures for identifying, reviewing, and evaluating differences in shipper/receiver measurements;
- (d) Procedures for taking a physical inventory;
- (e) Procedures for the evaluation of accumulations of unmeasured inventory and unmeasured losses;
- (f) A system of records and reports showing, for each MBA, the inventory of nuclear material and the changes in that inventory, including receipts into and transfers out of the MBA;
- (g) Provisions to ensure that the accountancy procedures and arrangements are being operated correctly;
- (h) Procedures for the submission of reports to the Agency in accordance with Paragraphs 24-36 below; and
- (i) Appropriate measures to ensure the physical security for nuclear material subject to safeguards under the Agreement.

2 OR 37

Denmark: "...All items in [paragraph 1.E] might be relevant in the case of countries with many large nuclear facilities, but they would not all be relevant in the case of others, which might have only one small reactor..."

3 OR 37

Canada: "...The wording of paragraph 1.E seemed to suggest that States were obliged to incorporate all the items listed in their national systems of control. It was obvious that the system established must be appropriate to a country's needs; the words 'appropriate' might be inserted after the words 'make provision' in the last line of the introductory part."

4 OR 37

"...to fulfil their obligation under paragraph 7 of Part I, States had to establish certain regulatory functions which might or might not include inspection, depending on the State;... inspection under national systems should [not] have any effect on the duration, content or frequency of inspections by the Agency."

6 OR 37

South Africa: "...MUF...must be compared with a 'reasonable' or 'appropriate' figure based on previous experience of the facility involved. The procedure to be followed for making such comparisons should be clearly laid down in Part II of agreements."

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7 OR 37

Spain: "...whenever there was a reference to nuclear material or peaceful nuclear activities, the qualification 'subject to safeguards' should be added..."

12 OR 37

France: "...If [the term 'physical security in paragraph 1.E(i)] meant 'containment', it was unnecessary to include the item [i] in the paragraph, because containment was dealt with elsewhere...."

13 OR 37

Austria: "...The contents of paragraph 1.E would constitute an obligation on States, and...even with the insertion of the words 'as appropriate' in the introductory part, it would still not be clear what States were expected to do; it would have to be specified to whom the words 'as appropriate' applied.... It would be better if some of the items were omitted from the list..."

14 OR 37

Egypt: "...if the items listed in Paragraph 1.E were included in the body of Part II of agreements they would become legal obligations. The idea was that the Agency should make use of national systems of accounting and control when they existed and that it should supplement them when necessary; detailed requirements could therefore be the subject of subsidiary arrangements between the Agency and States... [O]nly the introductory part of Paragraph 1.E, as amended by the Canadian delegation, need to be retained in the body of Part II."

20 OR 37

F.R.G.: "...insert the words 'as appropriate and as agreed upon between the State and the Agency in subsidiary arrangements' after the words 'make provision' in the last line of the introductory part of paragraph 1.E...."

29 OR 37

U.K.: "...list the minimal requirements [in 1.E] and leave the more complex to the subsidiary arrangements. A legal document should not provide guidelines but impose obligations."

30 OR 37

Yugoslavia: "...national systems were by and large an internal matter and each State had the right to choose the procedures most suited to its level of nuclear development. The idea of including

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the procedures in the subsidiary arrangements was not very satisfactory. States would have to maintain information on all nuclear material, not only that subject to safeguards, for otherwise the Agency would not be in a position to exempt certain materials from safeguards."

36 OR 37

Finland: "...flexibility was essential, if too much were included in the main agreement it might be difficult to draw up the subsidiary arrangements. Care should therefore be taken not to make the procedures set out in paragraph 1.E too binding. The list of procedures must be optional..."

37 OR 37

Suggest 1.E amendment "...'as appropriate and agreed upon between the State and the Agency in subsidiary arrangements, for the establishment of such items as'..."

58 OR 37

U.S.: "...If the words 'programmes' [in sub-paragraph (b)] was not acceptable,...it [should] be omitted and the clause should begin with the words 'the evaluation of...'"

60 OR 37

India: suggested "...deleting the words 'covering all peaceful nuclear activities'..."

63 OR 37

IAEA: "...inspections under national systems would not affect the requirements for inspection by the Agency as formulated later in the document."

65 OR 37

U.K.: "...the word 'all' [should be] inserted before 'nuclear material subject to safeguards under the Agreement'. In the interests of brevity...sub-paragraphs (b) and (c) should be deleted since their content was implicit in sub-paragraph (a)."

67 OR 37

IAEA: "...the Committee was prepared to accept the introductory sentence of paragraph 1.E with the proposed amendments; that sentence would accordingly read as follows:

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'1.E. The State's system of accounting for and control of all nuclear material subject to safeguards under the Agreement shall be based on a structure of material balance areas, and shall make provision as appropriate and as specified in the subsidiary arrangements for the establishment of such measures as:'

"...the insertion of the word "all" in paragraph 1.D, as suggested by the Indian delegation, was acceptable."

81 OR 37

France: "...objection to sub-paragraph (i). It was of course possible, and indeed necessary, to take measures to ensure the physical security of nuclear material; but that was a matter exclusively for the State. It was quite beyond the scope of the Agency to monitor any such measure, and therefore sub-paragraph (i) was out of place in the present document."

83 OR 37

Hungary: "...the reference to physical security of nuclear material was perhaps misplaced in the present section... There was no question of the Agency having to monitor the measures taken; but at the same time it could not be indifferent to them and must take account of them in its inspections."

85 OR 37

Canada: "...since the introductory sentence in paragraph 1.E had been so radically modified, there was little or no case for taking out sub-paragraph (i), which was now nothing more than a recommendation or suggestion.... [I]t would be more difficult to include the desired reference later in the document."

89 OR 37

U.S.: "...would consent to the deletion of sub-paragraph (i) if the point could be made more effectively elsewhere."

92 OR 37

IAEA: "...paragraphs (a) to (h) of paragraph 1.E in [Doc 82 were accepted] with the omission of the words 'programmes for' at the beginning of sub-paragraph (b)."

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INFCIRC/153 Paragraphs 33-34

STARTING POINT OF SAFEGUARDS

33. The Agreement should provide that safeguards shall not apply thereunder to material in mining or ore processing activities.

34. The Agreement should provide that:

- (a) When any material containing uranium or thorium which has not reached the stage of the nuclear fuel cycle described in sub-paragraph (c) below is directly or indirectly exported to a non-nuclear-weapon State, the State shall inform the Agency of its quantity, composition and destination, unless the material is exported for specifically non-nuclear purposes;
- (b) When any material containing uranium or thorium which has not reached the stage of the nuclear fuel cycle described in sub-paragraph (c) below is imported, the State shall inform the Agency of its quantity and composition, unless the material is imported for specifically non-nuclear purposes; and
- (c) When any nuclear material of a composition and purity suitable for fuel fabrication or for being isotopically enriched leaves the plant or the process stage in which it has been produced, or when such nuclear material, or any other nuclear material produced at a later stage in the nuclear fuel cycle, is imported into the State, the nuclear material shall become subject to the other safeguards procedures specified in the Agreement.

3 Doc 62/Rev. 1

"The Agreement should provide that safeguards shall start to be applied in respect of uranium or thorium introduced into the fuel cycle from the point where a sample, representative of the production stream, contains more than 95% of U_3O_8 or of ThO_2 , by weight, after conversion to oxide and heating in air at 850° to constant weight. It should further be provided that is, in a concentration or processing plant, uranium or thorium reaches this concentration in the middle of the process rather than at the end, safeguards shall begin with the next material balance area after this concentration has been attained.

IAEA: "If only uranium or thorium in a lower concentration is present in a mine, in ore or in a concentration plant these will be disregarded for the purposes of this Agreement."

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Doc 137 Finland Proposal

3. The Agreement should provide that safeguards shall not apply to material in mining or more processing activities.

3.A. The Agreement should provide that:

- (a) When any material containing uranium or thorium is exported for nuclear purposes directly or indirectly to a non-nuclear-weapon State, the State shall inform the Agency of its quantity, composition and destination;
- (b) When any material containing uranium or thorium is imported for nuclear purposes, the State shall inform the Agency of its quantity and composition; and
- (c) When any nuclear material of a composition and purity suitable for fuel fabrication or for isotopic enrichment leaves the plant or the process stage, in which it has been produced, or when such nuclear material or any other nuclear material, produced at a later stage in the fuel cycle, is imported into the State, the nuclear material shall also become subject to the other safeguards procedures specified elsewhere in the Agreement.

1 OR 60

Finland: "...The proposed text represented a compromise which appeared to have received the support of the majority."

4 OR 60

U.S.: "...the proposed text, in particular sub-paragraphs (a) and (b) of paragraph 3.A, would have important implications for other provisions the Committee had formulated, especially those dealing with international transfers... [S]ub-paragraph (a)... related to materials which were still in the initial stage of the fuel cycle. When the materials reached a composition and purity suitable for fuel fabrication or for isotopic enrichment, the case covered by sub-paragraph (c) would be relevant and all the safeguards procedures would apply, including those relating to international transfers."

5 OR 60

U.S.: "...the provision of paragraph 3.A...dealt not with the utilization of nuclear materials [covered in Part I of agreements], but with their composition and purity."

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7 OR 60

U.S.: "...nuclear materials would be subjected to general safeguards procedures on leaving the plant in which they had been converted into uranium hexafluoride (the case of enrichment) or into metallic uranium or uranium oxide (the case of fuel fabrication). However, those criteria could be modified in the future in order to allow for advances in technology. For example, it was possible that materials other than those just mentioned would constitute the starting point for the enrichment or fuel fabrication process..."

11 OR 60

Canada: "As for paragraph (c), it would be preferable for the Agency to have access to nuclear material as soon as it attained a composition and purity suitable for fuel fabrication or for isotopic enrichment, even before it left the plant."

14 OR 60

F.R.G.: "It would perhaps be preferable to change the order of the three sub-paragraphs of paragraph 3.A placing sub-paragraph (c) before the other two. If the present order was maintained, it would be necessary to omit the word 'other' from the end of sub-paragraph (c). Sub-paragraph (a) could be abridged and re-drafted as follows: 'when any material containing uranium or thorium is exported, the State shall inform the Agency of its quantity...' One could perhaps add the words 'except in the case of nuclear material subject to safeguards'."

16 OR 60

Hungary: "...omission of the words 'for nuclear purposes' might give rise to certain difficulties. When material was imported or exported without indication by the State of the purpose of such import or export such an operation should not be considered to be implicitly for non-nuclear purposes. The mere fact that there was no statement should not be a sufficient reason for exempting the State from fulfilling its obligations to the Agency."

24 OR 60

France: "...There was no doubt that notification should be the rule and non-notification the exception... [T]he words 'for nuclear purposes' should be omitted and the phrase 'unless exported for non-nuclear purposes' should be added at the end of the sub-paragraph."

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32 OR 60

U.S.: "...it was essential to specify that the materials referred to in sub-paragraph (c) were different from those dealt with in sub-paragraphs (a) and (b). On the other hand,...the material covered by sub-paragraph (a) was [not] 'nuclear material subject to safeguards under the Agreement'... [O]ne of the difficulties had been whether the reports required under sub-paragraphs (a) and (b) come within the category of safeguards and one part of the compromise had been to leave that point unresolved. However, in actual practice, the same result could be perhaps achieved by saying that sub-paragraphs (a) and (b) related to 'materials that have not reached the stage specified in sub-paragraph (c)'."

40 OR 60

U.K.: "...The representative of Australia had mentioned the case of exports of marine sands containing thorium, to show how unnecessary and costly it would be to require a State to provide information on exports which were not for nuclear purposes; but it would also be necessary to anticipate the export of materials containing depleted uranium as substitution products for lead. For that reason [the U.K.] was in favor of the amendment proposed by France."

44 OR 60

India: "...the reference to exports for nuclear purposes [should] be retained... If the agreement was formulated in vague terms it would impose unnecessary obligations on States... [T]he required reports would only concern exports for nuclear purposes..."

51 OR 60

IAEA: "...the information [on large quantities of thorium or uranium imported by a State for non-nuclear purposes] would be kept in the central files and the Agency would thus be able to know whether a particular State could convert a certain amount of imported material for non-nuclear purposes. A distinction had to be made, however, between material which could not be recovered or converted for nuclear purposes, i.e. material that was very unlikely to be used for nuclear purposes, and that which could be used to produce fissionable material for nuclear purposes. The latter category would also be a matter of record, and the Agency would be able to know that a particular State had the capability of producing nuclear material."

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52 OR 60

"...the requirement...in NPT to the effect that non-nuclear-weapon States should undertake to accept safeguards as set forth in an agreement to be negotiated and concluded with the Agency, would enable the latter to obtain from the importing country the same information on material exported for non-nuclear purposes, once the material had been recovered."

54 OR 60

U.S.: "...agree to the addition of the words 'that have not reached the stage specified in sub-paragraph (c)' after the word 'thorium' in sub-paragraph (a) and (b), and saw no objection to omitting the words 'also' and 'elsewhere' in the English version of sub-paragraph (c)."

55 OR 60

"...the French proposal [in paragraph 24] might be an acceptable compromise solution... [T]he word 'specifically' [should] be added before the phrase 'for non-nuclear purposes'."

63 OR 60

IAEA: "...[Doc 137], modified along the lines suggested by France (paragraph 24) and the U.S. (paragraphs 54 and 55) [was accepted]."

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INFCIRC/153 Paragraph 35

TERMINATION OF SAFEGUARDS

35. The Agreement should provide that safeguards shall terminate on nuclear material subject to safeguards thereunder under the conditions set forth in paragraph 11 above. Where the conditions of that paragraph are not met, but the State considers that the recovery of safeguarded nuclear material from residues is not for the time being practicable or desirable, the Agency and the State shall consult on the appropriate safeguards measures to be applied. It should further be provided that safeguards shall terminate on nuclear material subject to safeguards under the Agreement under the conditions set forth in paragraph 13 above, provided that the state and the Agency agree that such nuclear material is practicably irrecoverable.

4 Doc 62/Rev.1

4. It should be provided that safeguards shall terminate on nuclear material subject to safeguards under the Agreement under the conditions set forth in paragraph 10 of Part I; that the State shall ensure that safeguarded nuclear material contained in residues is recovered, as far as practicable, in its facilities and within a reasonable period; that if such recovery is not considered practicable or desirable by the State, the Agency may nevertheless determine that the material shall continue to be subject to safeguards under paragraph 10 of Part I; that in such circumstances the State and the Agency shall co-operate in making the necessary arrangements; and that where it is agreed that safeguards in respect of material contained in residues are terminated the State and the Agency shall co-operate in making arrangements to account for and dispose of material.

Doc 70 U.K. Proposal

4. It should be provided that, where safeguards are to be terminated in accordance with paragraph 10 of Part I, the State and the Agency shall co-operate regarding accounting for and disposal of the material in question.

4.A. Where the State considers that the recovery of safeguarded material from residues is not immediately practicable or desirable, but where the material may become recoverable at some future date, it shall consult with the Agency on the appropriate safeguards measures to be applied.

7 OR 36

Australia: "...the reference to 'disposal of the material' in [U.K. proposal] clearly meant verification of the fact of disposal; there could be no implication of health and safety arrangements as they did not come within the purview of...NPT."

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8 OR 36

France: "...there was no point in retaining the United Kingdom text for paragraph 4 since when safeguards were terminated there was no need for the State and the Agency to 'co-operate regarding accounting for and disposal of the material'. "However,...paragraph 4.A...was acceptable."

1 OR 38

France: "...the first three phases of the paragraph as suggested in [Doc 62] [should be] retained, and the remaining two phrases ... replaced by the material [in paragraph 4.A Doc 70]."

3 OR 38

Poland: "...the material in the U.K. proposal should be linked with paragraph 10 for Part I according to which the Agency should determine whether the material was actually irrecoverable or not. Therefore, in paragraph [4.A], the words 'upon determination by the Agency' should be added after 'where the material'."

5 OR 38

F.R.G.: "...whether recovery was practicable or desirable depended essentially on technical or economic considerations, which in the final analysis, could be evaluated only by the operator of the facility... It was necessary to clarify that point in order not to complicate the Agency's task."

7 OR 38

Hungary: "...a distinction had to be made between the case where the waste material was then finally disposed of and that where it was stored in such a manner that it could be recovered if necessary. In the latter case, the Agency should have the right to decide whether, in the meantime, the material should continue to be subject to safeguards... [The Polish wording (paragraph 3)] was a necessary addition to the U.K. proposal..."

7 OR 38

India: "... [The] solution [of INFCIRC/66/Rev.2, Annex II, Paragraph 8, according to which 'If such recovery is not considered practicable by the State, the State and the Agency shall co-operate in making arrangements to account for and dispose of the material'] was the most satisfactory one, both for the Agency, which thus had the assurance that the material had been accounted for and could not be recovered secretly, and for the State, which would have the possibility of avoiding the disadvantages of storage."

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8 OR 38

U.S.: Re Paragraph 1 (4) in the U.K. proposal: "...in accordance with Paragraph 10 of Part I, safeguards should terminate upon determination by the Agency that the material had become practicably irrecoverable... Paragraph 2 [4.A] of that proposal related to the case where the Agency had not made such a determination and where safeguards should therefore continue to apply... [T]he words 'but where the material may become recoverable at some future date' should be deleted."

9 OR 38

IAEA: "...[In] the case of a facility where there was a solution of waste containing considerable amounts of fission products and two kilograms of plutonium...the plutonium would be too expensive but, from a purely technical point of view, there was nothing to prevent its recovery right in the facility where the solution was stored... [M]easures would have to be taken to ensure that it did not simply vanish. However, there would be no justification for applying safeguards in all their rigour to the solution in question, and it would therefore be necessary for the State and the Agency to agree on what safeguards should be applied. The purpose of paragraph 4 was partly to cover such a case. There would be no question of the Agency taking a decision in regard to the disposal of the material but simply of making, together with the State, the necessary arrangements for applying limited safeguards to it."

16 OR 38

U.S.S.R.: "...the Agency should be able to decide to what extent it was necessary to continue applying safeguards to [material contained in] residues..."

19 OR 38

U.K.: "...The words 'it (the State) shall consult with the Agency on the appropriate safeguards measures to be applied' were intended to cover [the] intermediate situation [where material was technically recoverable but where it was not economically advantageous to undertake recovery at a particular time]. They did not imply that element of constraint in the relationship between the State and the Agency but simply indicated that the State was asking the Agency for its opinion."

20 OR 38

F.R.G.: "...there were three distinct cases. In the first, safeguards were definitely terminated, in which event the material in question was to be accounted for and disposed of. In the second, the material was immediately recoverable and would therefore continue to be subject to safeguards. In the third case,

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the material was not immediately recoverable for economic reasons and measures would be taken to adopt safeguards to that intermediate situation... [T]he amendments...in [Doc 70] covered those three cases."

22 OR 38

U.S.: "...Paragraph 2 [4.A] of the U.K. amendment should begin with the following phrase: 'Where the conditions of that paragraph are not met, but the State considers that...'"

34 OR 38

Japan: "Either the material was practically irrecoverable, and that would involve a final termination of safeguards, or else it was recoverable, and that would involve a simple exemption..."

Doc 93 IAEA Proposal

4. "The Agreement should provide that safeguards shall terminate on nuclear material subject to safeguards thereunder under the conditions set forth in Paragraph 10 of Part I. Where the conditions of that paragraph are not met, but the State considers that the recovery of safeguarded nuclear material from residues is not for the time being practicable or desirable, the Agency and the State shall consult on the appropriate safeguards measures to be applied. It should further be provided that safeguards shall terminate on nuclear material subject to safeguards under the Agreement under the conditions set forth in Paragraph 12 of Part I, provided that the State and the Agency agree that such nuclear material is practicably irrecoverable."

8 OR 41

IAEA: "...Paragraph 4 in Doc 93 [was accepted]."

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INFCIRC/153 Paragraph 37

EXEMPTIONS FROM SAFEGUARDS

37. The Agreement should provide that nuclear material that would otherwise be subject to safeguards shall be exempted from safeguards at the request of the State, provided that nuclear material so exempted in the State may not at any time exceed:

- (a) One kilogram in total of special fissionable material, which may consist of one or more of the following:
 - (i) Plutonium;
 - (ii) Uranium with an enrichment of 0.2 (20%) and above, taken account of by multiplying its weight by its enrichment; and
 - (iii) Uranium with an enrichment below 0.2 (20%) and above that of natural uranium, taken account of by multiplying its weight by five times the square of its enrichment;
- (b) Ten metric tons in total of natural uranium and depleted uranium with an enrichment above 0.005 (0.5%);
- (c) Twenty metric tons of depleted uranium with an enrichment of 0.0005 (0.05%) or below; and
- (d) Twenty metric tons of thorium;

or such greater amounts as may be specified by the Board of Governors for uniform application.

6 Doc 62/Rev.1

B. Exemptions related to quantity

6. The Agreement should provide that nuclear material that would otherwise be subject to safeguards shall be exempted from safeguards at the request of the State, provided that the material so exempted in the State may not at any time exceed:

- (a) One (1) kilogram in total of special fissionable material, which may consist of one or more of the following:
 - (i) Plutonium;

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- (ii) Uranium with an enrichment of 0.2 (20%) and above, taken account of by multiplying its weight by its enrichment;
- (iii) Uranium with an enrichment below 0.2 (20%) and above that of natural uranium, taken account of by multiplying its weight by five times the square of its enrichment;
- (b) Ten (10) metric tons in total of natural uranium and depleted uranium with an enrichment above 0.005 (0.5%);
- (c) Twenty (20) metric tons of depleted uranium with an enrichment of 0.005 (0.5%) or below; and
- (d) Twenty (20) metric tons of thorium.

6.1 Doc 62/Rev.1

IAEA: "Once exemption is granted the Agency will no longer require access to records in respect of the material concerned nor need reports be made, except that in the case that exempted material is introduced into a process or storage together with safeguarded material, provision should first be made for the reapplication of safeguards."

6.2 Doc 62/Rev.1

"...in accordance with Paragraph 13 of Part I, safeguards shall not be applied in respect of nuclear material while that nuclear material is in an activity which does not require the application of ssfeguards.

Doc 69 F.R.G. Proposal

"In Paragraph 6, add the following concluding phase at the end:
or such greater amounts as might be specified by the."

38 OR 36

U.S.: "...quantities stated as exemption limits in Paragraph 6 had been established in relation to their military use, not to their use in general nuclear programmes. It was of course imperative that the Board should retain the discretion to vary quantities as and when the need arose; but it must not be forgotten how or for what purpose the quantities had been fixed. If any change in quantities were made, it was essential that they should be made for all States concerned at the same time."

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39 OR 36

Hungary: "...opposed [the F.R.G. amendment] because it seemed ...illogical and even illegitimate that one party to an agreement (namely the Agency) should be given powers to vary the amounts unilaterally..."

45 OR 36

F.R.G.: "...the intention of the amendment's sponsors had been explicitly to invest any power of varying exemption limits in the Board and not in the Agency or the Secretariat - precisely to ensure that any change would be applied uniformly."

47 OR 36

U.S.: "...one way of making the meaning of the text even clearer would be to add the words for uniform application at the end."

50 OR 36

IAEA: "...the formulation of Paragraph 6 presented in [Doc 69] - [was accepted]."

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INFCIRC/153 Paragraphs 39-40

SUBSIDIARY ARRANGEMENTS

39. The Agreement should provide that the Agency and the State shall make Subsidiary Arrangements which shall specify in detail, to the extent necessary to permit the Agency to fulfil its responsibilities under the Agreement in an effective and efficient manner, how the procedures laid down in the Agreement are to be applied. Provision should be made for the possibility of an extension or change of the Subsidiary Arrangements by agreement between the Agency and the State without amendment of the Agreement.

40. It should be provided that the Subsidiary Arrangements shall enter into force at the same time as, or as soon as possible after, the entry into force of the Agreement. The State and the Agency shall make every effort to achieve their entry into force within 90 days of the entry into force of the Agreement, a later date being acceptable only with the agreement of both parties. The State shall provide the Agency promptly with the information required for completing the Subsidiary Arrangements. The Agreement should also provide that, upon its entry into force, the Agency shall be entitled to apply the procedures laid down therein in respect of the nuclear material listed in the inventory provided for in paragraph 41 below.

8 Doc 62/Rev.1

SUBSIDIARY ARRANGEMENTS

8. The Agreement should provide that the Agency and the State shall make Subsidiary Arrangements to specify, to the extent necessary to permit the Agency to fulfil its safeguards responsibilities under the Agreement in the most effective and efficient manner, for each facility containing or to contain nuclear material subject to safeguards under the Agreement, the manner in which the procedures laid down in the Agreement would be applied with respect to nuclear material in that particular facility.

9 Doc 62/Rev.1

9. It should be provided that the Subsidiary Arrangements shall take effect as soon as possible after the entry into force of the Agreement, but in any case within 90 days after the Agreement has entered into force, unless otherwise agreed by both the Agency and the State under special circumstance, and that to this end the State shall provide the Agency promptly with the information required for completing them. The Agreement should also provide that as soon as it has entered into force, the Agency shall be

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entitled to apply the procedures laid down in this Agreement, in respect of the items listed in the inventory provided for in Paragraph 10 below. Provision should be made for the possibility of an extension or change of the Subsidiary Arrangements by agreement between the Agency and the State without the need to amend the Agreement.

8.2 Doc 62/Rev.1

IAEA: "In States with limited nuclear activities the Subsidiary Arrangements could be very simple. When the nuclear activities of such States increase, arrangements will have to be extended accordingly."

1 OR 25

Canada: "... 'subsidiary arrangements' should cover technical matters and other questions of detail, which need not be dealt with in the main agreement... [T]he decision whether specific provisions should be included in Part II or relegated to the subsidiary arrangements should be taken on a case-by-case basis. The subsidiary arrangements should be completed at the same time as the main agreement."

3 OR 25

U.S.S.R.: "... subsidiary arrangements should take effect at the same time as the main agreement; an interval of 90 days... would be too long. The existence of an interim arrangement should not delay the negotiation of the main agreement."

7 OR 25

Yugoslavia: "... the subsidiary arrangements should cover matters of detail, such as the points at which measurements were to be taken and the way in which they should be made, the extent to which the inspector would have access to national records and the form of verification by the Agency of the information provided by national control systems. Consequently the subsidiary arrangements could only be completed after the whole picture had been made clear in the form of a safeguards document."

9 OR 25

IAEA: "... interim arrangements should be concluded by a State and the Agency before the conclusion of an agreement and be terminated on its coming into force. Their purpose should be to protect information of a confidential nature and to permit the subsidiary arrangements to come into force at the same time as the agreement itself..."

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10 OR 25

U.S.: "...it would be undesirable for information relating to subsidiary arrangements to be circulated to member States... [S]ince States were entitled to some protection [re their nuclear activities], such information should only be circulated with prior agreement."

13 OR 25

India: "...a subsidiary arrangement, setting out the detailed framework within which the Agency would implement safeguards, should be made known to Member States in order to ensure uniformity of implementation... [Otherwise] the format of subsidiary arrangements must ensure such uniformity."

15 OR 25

Italy: "...not convinced that every State had the right to keep under review the way in which the Agency was fulfilling its task."

16 OR 25

South Africa: "...Any information contained in annexes to subsidiary arrangements should not...be passed on to the Board."

17 OR 25

Japan: "...While...there was a need for uniformity in the implementation of safeguards,...that [was] the responsibility of the Director General, who would be guided by the principles and technical procedures agreed upon."

18 OR 25

"There should be no rigid stipulation that arrangements should take effect at the same time as the main agreement... [I]nterim arrangements would [probably not] expedite matters...however,... such arrangement [could be made] on a voluntary basis."

20 OR 25

U.S.: "...the circulation of the information [in subsidiary arrangements] would impose an intolerable burden on the Secretariat."

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21 OR 25

"...a State should...declare its inventory of nuclear material subject to safeguards at the time it concluded a safeguards agreement. The State should be required to keep its inventory up to date and also to maintain records until subsidiary arrangements took effect. [Such] an arrangement...would provide a stimulus for the [prompt] conclusion of subsidiary arrangements..."

Doc 79 U.K. Proposal

8. "The Agreement should provide that the Agency and the State shall make Subsidiary Arrangements to specify in detail, to the extent necessary to permit the Agency to fulfil its safeguards responsibilities under the Agreement in an effective and efficient manner, the practical application of the procedures laid down in the Agreement."

45 OR 38

U.K.: Amendment introduced "...merely to clarify the text in [Doc 62]."

48 OR 38

Japan: "It would be desirable for the Agency to arrange for the preparation,...by a panel of experts, of some form of manual which would set out normal verification activities for each type of facility. Such a manual would provide a basis for the negotiation of agreements and for the evaluation of efficiency in terms of cost, and it would be extremely useful to the operator himself. A detailed account of safeguards application procedures should be included in the text of the subsidiary arrangement."

50 OR 38

F.R.G: "...it would be preferable in the U.K. draft to delete the words 'safeguards' and simply say 'its responsibilities under the Agreement'."

Doc 73 Italy Proposal

"Transfer the last sentence of paragraph 9 to the end of paragraph 8."

69 OR 38

IAEA: "...paragraph 8 [as] set forth in [Doc 79] with the deletion of the word 'safeguards' and as amended by the Italian proposal in [Doc 22/73] Paragraph 1 [was accepted]."

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9.1 Doc 62/Rev.1

IAEA: "...To ensure protection of any confidential information provided before the Agreement enters into force, the Agency would undertake in an exchange of letters to apply the precautions necessary for this purpose. Nevertheless, as soon as the Agreement enters into force, the Agency is held to apply safeguards as provided in the Agreement and the State is held to accept such safeguards; even if it would for some reason not have been feasible to conclude Subsidiary Arrangements in time, this does not absolve either from that responsibility. Provision must therefore be included for the application of safeguards in the interim as well as for a deadline. During that interim the Agency would have the right to apply safeguards to the items in the initial report and any subsequent reports, check the records and have full inspection access, limited only in accordance with Paragraph 40."

9.2 Doc 62/Rev.1

"The implementation of safeguards is likely to undergo constant evolution and simplification. With the growth in the nuclear activity of the State, arrangements will have to be extended for new facilities. The Subsidiary Arrangements should therefore be amenable to extension or change by agreement between the Agency and the State without the need to amend the Agreement and the procedures for doing so should be flexible and simple."

Doc 73 Italy Proposal (add to end of Paragraph 9)

"To ensure protection of any confidential information provided before the Agreement enters into force, the Agency, if requested by the State, would undertake in an exchange of letters to apply the precautions necessary for this purpose."

72 OR 38

U.S.: "...it was for the Agency to take the initiative in the exchange of letters and that it should not wait for the State's request... [T]he words 'if requested by the State [should] be deleted."

73 OR 38

South Africa: "...the State and the Agency could agree as to the date when the subsidiary arrangements took effect... [P]roposed deletion of the words 'under special circumstances' in the first sentence of Paragraph 9."

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77 OR 38

Hungary: "...even 'if requested by the State', the Agency would not be under any obligation as long as the agreement had not yet entered into force."

88 OR 38

Spain: "...the last sentence of Paragraph 9 [transferred to the end of Paragraph 8]...might give the impression that a change in the subsidiary arrangements could have repercussions on the agreement."

89 OR 38

IAEA (Legal): "...the subsidiary arrangement would contain the additional technical material to enable safeguards to be applied. They would neither add to nor detract from the rights and obligations set out in the agreements themselves."

93 OR 38

IAEA: "...at present subsidiary arrangements were concluded between States and the Director General without reference to the Board."

96 OR 38

U.S.: "...the Committee had already agreed that subsidiary arrangements should not be circulated. They would be brought up to date whenever a new facility was set up but it did not seem desirable to keep the Board informed of the details of each arrangement and amendment thereto. Only the date of entry into force...should be communicated to the Board."

97 OR 38

IAEA: "...Only the parts of the subsidiary arrangements dealing with individual facilities might contain confidential information."

98 OR 38

U.K.: "...The Director General or Inspector General could, at the Board's request, provide any information which the Board might require."

Doc 88 Poland Proposal

"It should be provided that the Subsidiary Arrangements shall take effect as soon as possible after the entry into force of the Agreement. It should further be provided that the State and the Agency

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shall undertake every effort to ensure that those Arrangements shall take effect not later than within 90 days of the entry into force of the Agreement. To this end the State shall provide the Agency promptly with the information required for completing them."

2 OR 39

U.K.: "...A point of great importance might be lost if Paragraph 9 were recast in the manner suggested [by Poland]... Doc 62 provided that the subsidiary arrangements should enter into force within 90 days 'unless otherwise agreed by both the Agency and the State'. That gave the Agency an important lever for controlling negotiations, since no extension could be allowed without its concurrence... [A] State might seek to protract negotiations indefinitely, and the effect of the Polish amendment would be to enable it to do so..."

4 OR 39

Yugoslavia: "...both the main and the subsidiary arrangements would normally be negotiated concurrently and that, if any commercial secret as were involved which could be transmitted to the Agency only on the assurance that proper precautions would be taken to preserve them, those could be dealt with later by special negotiations as amendments or additions to the subsidiary arrangements."

8 OR 39

IAEA: "...the Agency would become responsible for appying safeguards the moment the agreement with a State came into force, even if the subsidiary arrangements had not by then been concluded. Until they had been concluded, the Agency would discharge its responsibilities at least by surveillance. It was, however, in the interest of every State to conclude subsidiary arrangements at the earliest possible date as they would define the Agency's responsibilities more precisely."

11 OR 39

U.S.: "...the Committee would be ill-advised to frame Paragraph 9 merely in terms of "best efforts", for the effect would be to weaken the paragraph by eliminating an obligation upon both the State and the Agency to bring the subsidiary arrangements into effect within 90 days unless both parties agreed to further delay. Perhaps the best course would be to retain the first sentence of the text in [Doc 62] up to the words 'under special circumstances' replacing that phrase and the remainder of the sentence by the second sentence of the Polish proposal. The paragraph would then read:

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"It should be provided that the Subsidiary Arrangements shall take effect as soon as possible after the entry into force of the Agreement, but in any case within 90 days after the Agreement has entered into force, unless otherwise agreed by both the Agency and the State. It should further be provided that the State and the Agency shall undertake every effort to ensure that those Arrangements shall take effect not later than 90 days after the entry into force of the Agreement. To this end the State shall provide the Agency promptly with the information required for completing them."

15 OR 39

IAEA: "...there were no technical reasons why any time should elapse between the conclusion of a main agreement and the conclusion of subsidiary arrangements..."

16 OR 39

"...It was obvious that no initial report could be submitted before an agreement came into force, but it should be submitted as soon as possible thereafter, and Paragraph 27 allowed a lapse of two weeks from the last day of the calendar month in which the agreement had come into force."

17 OR 39

"For that delay, then, the reasons were technical; but for any delay between the entry into force of an agreement and the conclusion of subsidiary arrangement the reasons could not be other than political..."

18 OR 39

India: "...An initial exchange of letters would therefore be desirable at the outset of negotiations to ensure that confidential information supplied to the Agency would be handled with all due precautions. That would greatly facilitate the simultaneous conclusion of the agreement and the subsidiary arrangements."

21 OR 39

U.S.: "...The obligation of a State under NPT was to enter into an agreement on safeguards; it has no obligation beyond that until the agreement came into effect and thereby prescribed further obligations. It was of course highly desirable that States

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be offered the opportunity to negotiate subsidiary arrangements with the Agency at the same time as they negotiated the basic agreement, and that the Agency should undertake to protect proprietary information; but no State could be obliged to supply such information before the agreement was signed."

28 OR 39

F.R.G.: "...suggested that the first sentence be modified to read: "It should be provided that the subsidiary arrangements shall take effect at the same time as, or as soon as possible after, the entry into force of the Agreement". Such a formulation would cover all cases and allow States to start negotiating subsidiary arrangements either before the main agreement was concluded, or after it had entered into force. It would have the further advantage of being in harmony with the Committee's general concern for flexibility."

Doc 92/Rev.2

14. It should be provided that the Subsidiary Arrangements shall enter into force at the same time as, or as soon as possible after, the entry into force of the Agreement. The State and the Agency shall make every effort to achieve their entry into force within 90 days of the entry into force of the Agreement, a later date being acceptable only with the agreement of both parties. The State shall provide the Agency promptly with the information required for completing the Subsidiary Arrangements. The Agreement should also provide that, upon its entry into force, the Agency shall be entitled to apply the procedures laid down therein in respect of the nuclear material listed in the inventory provided for in Paragraph 15 below.

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INFCIRC/153 Paragraph 41

INVENTORY

41. The Agreement should provide that, on the basis of the initial report referred to in Paragraph 62 below, the Agency shall establish a unified inventory of nuclear material in the State subject to safeguards under the Agreement, irrespective of its origin, and maintain this inventory on the basis of subsequent reports and of the results of its verification activities. Copies of the inventory shall be made available to the State at agreed intervals.

10 Doc 62/Rev.1

10. The Agreement should provide that, on the basis of the initial report referred to in Paragraph 27 below, the Agency shall establish a single inventory of all nuclear material subject to safeguards in the State and maintain this on the basis of subsequent reports and of the results of its verification activities.

10.1 Doc 62/Rev.1

IAEA: "It is foreseen that for each State a single inventory of safeguarded nuclear material will be kept. The Agency's accounting system will, however, permit the determination, if required, of the total amount of nuclear material received by the State from any other State. The material on inventory would be listed according to material balance areas. Nuclear material being transferred between two material balance areas in the State will continue to be listed for the material balance areas from which it is shipped, as "material in transit", until it is reported to have arrived at the receiving material balance areas.

10.2 Doc 62/Rev.1

"Nuclear material that has been exempted from safeguards will be deleted from the inventory in respect of the material balance area in question."

31 OR 31

Canada: "...agreements in connection with the NPT would provide an ideal opportunity for optimizing the accounting procedure. In that connection...a single inventory [should] be maintained, irrespective of the origin of nuclear material. A procedure would, however, have to be found for applying the provisions in Paragraph 13 of Part I of agreements; there would be a provision which would cover the additional undertaking, required by certain suppliers, that material would be used exclusively for peaceful purposes."

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33 OR 33

U.S.: "...A State would be obliged to show tht material used for military purposes not prohibited by NPT had not been received under an agreement stipulating that it be used for peaceful purposes."

34 OR 31

F.R.G.: "...wondered whether it would not be advisable to incude a special clause obliging the Agency to inform a State at agreed times of the result of verification and to provide it with copies of the inventory."

36 OR 31

IAEA: "...the frequency of reports could be laid down either in the 'subsidiary arrangements' or in the agreement itself... [I]n cases where there was considerable activity in parts of the fuel cycle a continuous picture of the inventory could be maintained on the basis of monthly reports. There would also be a time limit within which monthly reports should reach the Agency;...two weeks would be acceptble, although it would result in a maximum delay of six weeks in the case of movements occurring at the beginning of the month covered by a report. With regard to the supply of copies of the inventory by the Agency to the State, such copies had so far been supplied half-yearly or yearly."

37 OR 31

"With regard to the criterion for deciding whether material could justifiably be withdrawn from safeguards for permitted military uses,...the matter could be dealt with adequately by analyzing previous reports, which would state the country of origin of the material and its destination. On the basis of the information given in such reports it should be possible to judge, even after a considerable period, whether the amount of the nuclear material the State intended to withdraw for military uses could come out of that part of its inventory that it was not required to use for peaceful purposes only... [I]nventories should not be maintained for the purpose of labelling atoms of plutonium by their origin."

10 Doc 66 Belgium Proposal for Addition to Paragraph 10

"Copies of the inventory shall be made available to the State at intervals to be specified by joint agreement."

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10 Doc 89 Japan Proposal for Addition to Paragraph 10

The inventory of all nuclear material shall specify total weight, and in the case of enriched uranium the weight of fissile isotopes shall also be specified. The unit of weight shall be kilograms except for highly enriched uranium and plutonium, the unit of which shall be grams."

10 OR 39

IAEA: Re questions asked "...the term "single inventory" (as used in Paragraph 10) meant a single inventory for an entire State. At present, in respect of each safeguards agreement that the Agency had with a State, the nuclear material was listed in a separate inventory, sometimes even for each facility separately; under the agreements for which the Committee was formulating material, however, all nuclear material in a State would be listed in a single inventory.

41 OR 39

"The inventory for a particular material balance area was another matter: it would in fact be a local sub-division of the single inventory. Hence the single inventory for the whole State would initially cover all material balance areas and might at a later stage be sub-divided to account for each; it would still, however, remain one single inventory.

42 OR 39

"...one of two alternative patterns would be followed depending upon the arrangements made for bringing the subsidiary arrangements into force. If they took effect at the same time as the agreement, the pattern of material balance areas would already have been agreed upon and the initial report would take account of them. But if during the interim period the material balance areas had not been fixed, a single inventory would have to be made for the State; in that case the feedback of inventory information would of necessity be based on that inventory."

43 OR 39

"...it would be best for all nuclear material in the State to be covered in the initial report and for exemption to be granted at a later date by agreement between the Agency and the State... [T]hat reply [could not] be taken as definitive, however.

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44 OR 39

Switzerland: "...the non-application of safeguards could also relate to nuclear material of a non-explosive nature in military establishments. If States were not required to include such material in initial inventories there was a risk of creating a loophole."

46 OR 39

U.S.: "...the matters [concerning both proposals, Docs 66 and 89] could more appropriately be dealt with elsewhere in the document..."

48 OR 39

France: "...it was certainly not clear from the text that the qualification 'single' was intended to convey that the inventory would make no distinction as regards the origin of material. Moreover, although Comment 10.1 stated that material would be listed according to material balance areas, no mention of that was made in the text...[Proposed redrafting:]

"The Agreement should provide that the Agency shall establish an inventory for each material balance area, but during the initial phase there might be only one inventory for each State. In the case of the latter inventories, no distinction would be made as to the origin of the nuclear material."

49 OR 39

F.R.G.: Suggested shortening Doc 66 to read "Copies of the inventory shall be made available to the State at agreed intervals."

53 OR 39

IAEA: "...if, at the date on which the agreement came into force, the relevant subsidiary arrangements governing material balance areas had already been drawn up, there would be no difficulty in parparing the single inventory according to material balance areas."

54 OR 39

IAEA: "The only problem would be how to deal with material reported as being for military non-explosive use and not subject to safeguards... Only when it would be reported that the nuclear material had again gone into a peaceful nuclear activity, for instance reprocessing, would the appropriate safeguards be applied."

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55 OR 39

Canada: suggested...using the term 'unified inventory',...and adding the qualification 'irrespective of the origin of such nuclear material'."

56 OR 39

"With regard to the suggestion that inventory should apply only to safeguarded material,...under the provisions of Part I Paragraph 13(b) in document GOV/1420, Annex A, States were called upon to provide the Agency with information on nuclear material not subject to safeguards. When making their initial reports to the Agency, States might divide them into three parts: active, which would encompass all material to which safeguards would apply, including material which the Agency had not yet agreed to exempt from safeguards or in respect of which it had not yet agreed to terminate safeguards; inactive, which would encompass all materials the Agency had agreed to exempt from safeguards or in respect of which it had agreed to terminate safeguards; and materials reported pursuant to provisions of Part I, Paragraph 13(b).

60 OR 39

U.K.: "...the exemption and non-applicability provisions in Part I should apply only from the date of coming into force of agreements and should not have a retroactive effect.

66 OR 39

Hungary: "If materials already being used for non-nuclear activities were not included in initial inventories and had subsequently be exempted from safeguards, that might give rise to suspicion on the part of inspectors and to a general undermining of confidence. While...it would be difficult for States to provide information on a retroactive basis,...it would be both in their interests and in those of the Agency...to do so."

69 OR 39

Japan: "...the fixing of units of measurement was important not only for reporting, but for the keeping of records upon which reports would be based..."

71 OR 39

U.S.: "...would not object to a provision specifying the content of initial reports in greater detail, including the units of measurement to be employed, but if what was involved was the whole question of units of measurement,...the time to discuss the matter was with the section on reports...."

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72 OR 39

Canada: Re: Retroactive information "...putting a State in the position of being able to take a unilateral decision in the period immediately preceding the coming into force of the agreement it had negotiated with the Agency would be contrary to the main objective of the NPT and of the agreement itself."

73 OR 39

Finland: Re: Paragraph 13 of Part I "...the words 'under the agreement' might be inserted after 'subject to safeguards' in the third line of Paragraph 10."

81 OR 39

IAEA: Re: Japan proposal "...it would be preferable to discuss units in connection with records and reporting. The Agency would operate on the basis of the inventory dealt with in Paragraph 10; the others mentioned [in Paragraph 56] by Canada did not relate to the entire safeguards operation and could be based on other requirements concerning information, such as those covered by the material in Part I, Paragraph 13(b). There should be one unified inventory for each State, and the Agency would be well informed about exempted nuclear material under the maximum reporting procedures specified in Part I, Paragraph 13."

89 OR 39

IAEA: "...the Committee wished to accept the formulation of Paragraph 10 in [Doc 62] as thus amended by Canada [substitute the words 'a unified inventory of all nuclear material in the State, irrespective of its origin, which is subject to safeguards under the Agreement' for the words 'a single inventory of all nuclear material subject to safeguards in the State' (Paragraph 87)], with the addition of the sentence proposed in [Doc 66] as amended by the F.R.G. [the words 'at agreed intervals' would be substituted for the words 'at intervals to be specified by joint agreement']].

91 OR 39

IAEA: "...the Japanese proposal [Doc 89]...should be further discussed...at a later stage, to prescribe the units to be used and to decide where in Part II of agreements the relevant provision could best be placed.

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INFCIRC/153 Paragraph 42

DESIGN INFORMATION

General

42. Pursuant to Paragraph 8 above, the Agreement should stipulate that design information in respect of existing facilities shall be provided to the Agency during the discussion of the Subsidiary Arrangements, and that the time limits for the provision of such information in respect of new facilities shall be specified in the Subsidiary Arrangements. It should further be stipulated that such information shall be provided as early as possible before nuclear material is introduced into a new facility.

7 Doc 3

Design review

"...the design review is the first element in the application of safeguards to nuclear material. Design data on facilities containing or to contain safeguarded nuclear material must be submitted to the Agency; information is also required on the State's accountancy system for nuclear material outside facilities. The information in respect of existing facilities should be submitted during the discussion of the Subsidiary Arrangements so that the Arrangements can take effect [simultaneously with the Agreement]. The time limits for the submission of such data in respect of new facilities or significant modifications of existing facilities will be specified in the Subsidiary Arrangements. In any event, such data should be submitted as early as possible so as to enable the Agency and the State to agree on records and reports and other safeguards matters for that facility and in no case later than six months before nuclear material is introduced into that facility. An early submission of design data will also ensure that sufficient time is available for consultations on the installation of safeguards instruments and application of seals and other special safeguards techniques, including cost-saving devices.

23 OR 25

U.K.: "...The term 'review' suggested that the Agency would be in a position to examine the proposed design for the facility and object to it if it saw fit... [T]he word 'examination' [should] be substituted for 'review'. The Agency...might examine [the documents concerned] on the premises of the state."

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31 OR 25

South Africa: "...it was desirable that information should be submitted as early as possible,...[but] it [was] impracticable to specify a deadline."

33 OR 25

F.R.G.: "The heading 'Design review' should be changed to 'Examination of design information'. Referring to the last two sentences of Paragraph 7,...it was impracticable to require that design information should be submitted not later than six months before nuclear material was introduced into a facility. The appropriate time-limit would differ from one installation to another and should therefore be determined within the framework of the subsidiary arrangements. Moreover, the final sentence gave the impression that if the time-limit of six months were not met, no consultations would take place."

37 OR 25

U.S.: "...the deadline...in Paragraph 7 [above] [was] such an important general provision [that it] should certainly be incorporated under Part II and not covered by subsidiary arrangements; [there was] no reason for taking decisions on a case-by-case basis regarding the deadline. The suggested deadline of six months before nuclear material was introduced into a facility should not result in any delay or inconvenience to the State concerned."

42 OR 25

IAEA: "...the deadline of not later than six months before nuclear material was introduced into the facility would apply only to new plants. In the case of existing facilities or modifications to facilities, the time-limit would be more flexible. The purpose of the final sentence of Paragraph 7 was merely to emphasize that the early submission of information would enable the Agency to determine at the earliest possible stage what safeguards measures should be taken and, in particular, what instruments could be installed; that would make it possible to introduce the use of instruments immediately as they become available."

12 Doc 62/Rev.1

EXAMINATION OF DESIGN INFORMATION

12. The Agreement should stipulate that design information in respect of existing facilities shall be provided to the Agency during the discussion of the Subsidiary Arrangements, and that the time limits for the provision of such information in respect

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of new facilities shall be specified in the Subsidiary Arrangements. It should further be stipulated that in any event such information shall be provided as early as possible so as to enable the Agency and the State to agree on records and reports and other safeguards matters for that facility, and no later than six months before nuclear material is introduced into a new facility, unless, on the basis of unusual circumstances, the Agency and the State agree otherwise.

Doc 62/Rev.1

IAEA: "As a guideline, the time limit for provision of design information of six months before nuclear material is introduced into a facility would appear to be reasonable, but flexibility will be necessary especially with regard to modifications to facilities under construction. It is worth noting that an early submission of design information should also ensure that sufficient time is available for consultations on the installation of safeguards instruments and the application of seals and other special safeguards techniques including cost saving devices."

Doc 83 F.R.G. Proposal

12. Pursuant to Paragraph 8 of Part I, the Agreement should stipulate that design information in respect of existing facilities shall be provided to the Agency during the discussion of the Subsidiary Arrangements, and that the time limits for the provision of such information in respect of new facilities shall be specified in the Subsidiary Arrangements. It should further be stipulated that such information shall be provided as early as possible so as to enable the Agency and the State to agree on detailed verification procedures for each facility.

102 OR 39

F.R.G.: "...the phrase 'in any event' in the second sentence [of 12 Doc 62/Rev.1] had been dropped... It was enough to require that the information should be provided as early as possible. The phrase 'detailed verification procedures for each facility' was more general than the original text, which was not sufficiently comprehensive. The six month limit...had been eliminated...because in some instances the time limit might have to be shorter; hence greater flexibility was desirable."

104 OR 39

Hungary: "...information about facilities under construction... should be sent in any case before the date of entry into operation so as to enable inspectors to inspect the facility before radioactive material had been introduced..."

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107 OR 39

Canada: Re F.R.G. Amendment: "...Comprehensive information was needed and detailed verification procedures might not cover all the requisite elements. The early provision of information to the Agency would enable it to specify what procedures its inspectors should follow."

108 OR 39

U.S.: "...proposed that the words 'before the introduction of nuclear material subject to safeguards under the agreement' be inserted after the word 'possible' in the second sentence of the German amendment. The rest of the sentence - from the words 'so as to enable' onward - should be omitted."

1 OR 40

F.R.G.: Re U.S. suggestion proposed "...as a compromise solution,...the words "before nuclear material is introduced into a new facility'."

13 OR 40

IAEA: "...the Committee was prepared to accept the formulation of Paragraph 12 proposed in [Doc 83 with relevant modifications]."

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INFCIRC/153 Paragraph 46

PURPOSES OF EXAMINATION OF DESIGN INFORMATION

46. The Agreement should provide that the design information made available to the Agency shall be used for the following purposes:

- (a) To identify the features of facilities and nuclear material relevant to the application of safeguards to nuclear material in sufficient detail to facilitate verification;
- (b) To determine material balance areas to be used for Agency accounting purposes and to select those strategic points which are key measurement points and which will be used to determine the nuclear material flows and inventories; in determining such material balance areas the Agency shall, inter alia, use the following criteria:
 - (i) The size of the material balance areas should be related to the accuracy with which the material balance can be established;
 - (ii) In determining the material balance area advantage should be taken of any opportunity to use containment and surveillance to help ensure the completeness of flow measurements and thereby simplify the application of safeguards and concentrate measurement efforts at key measurement points;
 - (iii) A number of material balance areas in use at a facility or a distinct sites may be combined in one material balance area to be used for Agency accounting purposes when the Agency determines that this is consistent with its verification requirements; and
 - (iv) If the State so requests, a special material balance area around a process step involving commercially sensitive information may be established;
- (c) To establish the nominal timing and procedures for taking of physical inventory for Agency accounting purposes;

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- (d) To establish the records and reports requirements and records evaluation procedures;
- (e) To establish requirements and procedures for verification of the quantity and location of nuclear material; and
- (f) To select appropriate combinations of containment and surveillance methods and techniques and the strategic points at which they are to be applied.

It should further be provided that the results of the examination of the design information shall be included in the Subsidiary Arrangements.

9 Doc 3

9. The review would enable the Agency, after consultation with the State, to:

- (a) Define material control areas and select those measurement points which will be used to determine the input and output of nuclear material in these areas for the Agency's accounting purposes;
- (b) Establish procedures and convenient frequencies and timing for taking a physical inventory;
- (c) Establish the recording and reporting requirements and records evaluation procedures;
- (d) Select appropriate containment and surveillance methods and techniques; and
- (e) Establish inspection requirements and procedures for verification of the quantities and composition of nuclear material and select locations where inspections shall normally be made.

30 OR 25

Spain: "...verification should be concentrated on those phases of fuel cycle, for example production, treatment, processing and storage, which concerned nuclear material from which nuclear weapons or other explosive nuclear devices could readily be manufactured.

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35 OR 25

F.R.G.: "...suggested replacing the words 'after consultation with the State' by 'in agreement with the State': the State was in any case required to co-operate with the Agency, and vice versa, by the general provisions of the agreement. After the word 'techniques...' in the Paragraph 9(d)...suggested adding the words 'on the basis of the existing or proposed plant layout'."

39 OR 25

U.S.: "...did not agree with [F.R.G. suggestion because] the Agency should have the right to take independent decisions; however,...the wording could be changed to indicate that such decisions would be based on a spirit of co-operation, and suggested that the wording be 'after taking into account its consultations with the State,...'"

43 OR 25

IAEA: Re first F.R.G. suggestion: "...the action taken by the Agency would be determined by its internal verification procedures, but the circumstances in the State concerned would, of course, be taken into account."

14 Doc 62/Rev.1

B. Purpose of examination of design information

14. The Agreement should provide that the Agency shall use the design information for the following purposes, taking into account its consultations with the State:

- (a) To identify the facility and the nuclear material in sufficient detail to facilitate the application of safeguards;
- (b) To define material balance areas to be used for Agency accounting purposes and to select those strategic points which are key measurement points and which will be used to determine the nuclear material flows and inventories;
- (c) To establish the nominal timing and procedures for taking of physical inventory for Agency accounting purposes;
- (d) To establish the records and report requirements and reports evaluation procedures;

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- (e) To establish requirements and procedures for verification of nuclear material; and
- (f) To select appropriate combinations of containment and surveillance methods and techniques and the strategic points at which they are to be applied.

It should further be provided that the results of the examination of the design information shall form the basis of and be included in the Subsidiary Arrangements.

14.1 Doc 62/Rev.1

IAEA: "...The design information questionnaires contained in the report ["Design Information Requirements for IAEA Safeguards" prepared by the Department of Safeguards and Inspection] cover reactor, conversion, fabrication and reprocessing facilities, storage and other locations, and only information relevant to the purposes listed above is required. The questionnaires are intended to guide the State in providing information to the Agency and give, wherever possible, an explanation of the type of information requested. Visits and consultations with the facility management and government officials may be used to amplify the initial submission of design information."

14.2 Doc 62/Rev.1

"A copy of the design information as made available to the Agency and updated to include all subsequent changes could preferably be kept at the facility in the form of a manual. The availability of this information to the facility would reduce the safeguards effort when changes or adaptations of details of the Agency's safeguards measures are needed due to significant changes in the layout, mode of operation, flow sheet or accounting procedures in a material balance area."

14.3 Doc 62/Rev.1

"...[A] design information questionnaire for isotope separation plants...should be produced when needed on the same lines as the current one."

14.4 Doc 62/Rev.1

"The Agency will use the following criteria, inter alia, in selecting safeguards material balance areas:

- (a) The size of the area should be related to the accuracy with which the material balance can be established;

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- (b) In defining the area advantage should be taken of any opportunity to use containment and surveillance to help assure the completeness of flow measurements and thereby simplify the application of safeguards and concentrate verification efforts at the measurement points;
- (c) A number of material balance areas as used by operators, or distinct sites, may be combined in one safeguards material balance area when the Agency determines that this is consistent with its safeguards requirements; and
- (d) If the operator so requests, the Agency may agree to establish a smaller than normal material balance area around a process step involving commercially sensitive information.

14.5 Doc 62/Rev.1

"In the selection and definition of safeguards material balance areas the Agency will further be guided by the control parameters that can be used and the causes of imbalance of material in the material balance areas. From this point of view it may be practical to distinguish between the three different types of areas to be found in facilities, viz:

- (a) In a process area nuclear material undergoes chemical or physical changes and wastes may be generated. The book inventory, determined by measured inputs to and outputs from the material balance area, is periodically compared with a measured physical inventory to obtain an interest of material unaccounted for;
- (b) In a storage area where receipts of nuclear material are recorded on the basis of shipper's data and where removals of nuclear material are recorded on the basis of the operator's measurements, the difference between the book inventory and the physical inventory should be the net shipper/receiver difference and normally there will be no material unaccounted for in the same sense as in a process area; and
- (c) In a storage or a reactor nuclear material inputs and outputs may be recorded on the basis of the input measurement or shipper's data and the calculated value of nuclear loss and production. Normally the book inventory and physical inventory should then be identical and material unaccounted for consequently equal to zero.

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If a material balance area includes both types (a) and (b) above, care must be exercised in order to separate clearly shipper/receiver differences from process material unaccounted for."

14.6 Doc 62/Rev.1

"In establishing the nominal timing for taking physical inventories the Agency will be guided by the facility operator's proposed timing."

11 OR 41

F.R.G.: "...the operation of identifying the features of facilities relevant to safeguards was of fundamental importance and constituted the basis of verification procedures, so it was essential that it be carried out in co-operation with the State..."

Doc 86 F.R.G. Proposal

1. Replace the introductory sentence of paragraph 14 by:

The Agreement should provide that the Agency shall use the design information for the following purposes, in co-operation with the State:

2. Replace sub-paragraph 14(a) by:

(a) To identify the features of facilities relevant to safeguarding nuclear material in sufficient detail to facilitate verification;

3. Add the following to sub-paragraph 14(b):

- in selecting such material balance areas the Agency shall inter alia, use the following criteria:
 - (i) The size of the area should be related to the accuracy with which the material balance can be established;
 - (ii) In defining the area advantage should be taken of any opportunity to use containment and surveillance to help ensure the completeness of flow measurements and thereby simplify the application of safeguards and concentrate verification efforts at key measurement points;

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- (iii) A number of material balance areas as used by operators, or distinct sites, may be combined in one material balance area to be used for Agency accounting purposes when the Agency determines that this is consistent with its verification requirements; and
- (iv) If the operator so requests, the Agency may agree to establish a smaller than normal material balance area around a process step involving commercially sensitive information.

4. Delete the sentence inserted as a conclusion to Paragraph 14 [4(e) Doc 62./Mod.1].

17 OR 41

South Africa: "Provision must be made...to cover the case where a particular feature of a facility was so vital to the State's interests that information about it could not be disclosed to anyone. The Agency would then have to select an alternative procedure."

18 OR 41

"...the introductory sentence in the German amendment [should] be modified by the substitution of the words 'in agreement' for the words 'in co-operation'"

29 OR 41

U.S.: "...it must be open to the Agency to make certain important determinations in selecting material balance areas and strategic points - after consultation with the State, but always at its own discretion... ([T]he Agency would use design information in making its determination and...it should not be frustrated by the State withholding its co-operation..."

31 OR 41

"...the provisions concerning impartial arbitration or settlement by the Board should be adequate for [the resolution of difficulties between the Agency and the State]."

32 OR 41

"...in favor of the [F.R.G.] change in Sub-paragraph 14(a). The application of safeguards was a generic term for all measures to be taken by the Agency and the State to ensure that the terms of NPT agreements were carried out. Verification meant more specifically the measures taken by the Agency to accomplish that objective."

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36 OR 41

Finland: "...Sub-paragraph (iv) of the German text implied that in some situations the Agency could depart from the 'normal' procedure, but there was not indication...of what the normal procedure should be... [T]he sub-paragraph should either be deleted or redrafted."

37 OR 41

Belgium: "...substitute the word 'State' for the word 'operator' in Sub-paragraph (iv) since it dealt with a point which had to be negotiated between the State and the Agency."

39 OR 41

Australia: "...It was important that there should be no interference with the operation of facilities and it was certainly out of the question that States should be called upon to alter production schedules unreasonably because of unilateral decisions by the Agency."

41 OR 41

Australia: "If commercial security were at stake, the onus would be on the State to provide alternative means for the Agency to obtain the same results."

42 OR 41

Italy: "...insert the words 'the quantity and location of' before the words 'nuclear material' in Sub-paragraph (e)."

54 OR 41

India: "...It had been agreed that when a facility or a part of a facility was of exceptional importance from the standpoint of commercial secrecy, the Agency would apply only such safeguards measures so as would enable it effectively to discharge its responsibilities without infringing commercial security..."

58 OR 41

Australia: "...it would be improper for the Agency ever to seek to impose practices in which might be wasteful or dangerous. It was always the responsibility of the State to determine what practice should be used, and that responsibility could never be transferred to the Agency without serious infringement of the State's sovereignty."

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64 OR 41

F.R.G.: "...retain the words 'of facilities' [in 14(a)], but add immediately after them the words 'and nuclear materials';..."

65 OR 41

F.R.G.: "...replace 'smaller than normal' by the adjective 'special' [in sub-paragraph iv].

66 OR 61

"...the original wording of Paragraph 14 should be retained if a majority of the Committee so desired, provided that the words 'from the basis of and' were deleted."

70 OR 41

IAEA: "...since containment and surveillance were...elements of any verification procedure...the [F.R.G.] Sub-paragraph (b)(ii) should end with the words '...the completeness of flow measurements;'. "

73 OR 41

IAEA: "...The selection of the material balance area would be very important in determining the Agency's work load... [T]he delimitation of material balance areas should be made with that in mind..."

90 OR 41

U.K.: "...the beginning of the paragraph [(b)(iv)] [should be] redrafted to read: "material balance areas in use at the facility or distinct sites may be combined..." Such a wording would enable the Agency to have independent and direct access to installations, in the presence of a State representative if desired, and would also leave it open to the Agency to make use of material balance areas established by the State if it so wished."

Doc 97/Rev.1 Australia Proposal to Replace 1st Sentence of Paragraph 14

"The Agreement should provide that the design information made available to the Agency shall be used for the following purposes:"

1 OR 43

Australia: "...avoided using the words 'consultation', 'co-operation' and 'agreement' which had given rise to so much discussion... [T]he intention was that there should be discussions

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between the Agency and the State and that there would be co-operation between them to implement the agreement reached in those discussions."

4 OR 43

Japan: "...a phrase such as 'making sure that safety, operational convenience, construction and commissioning of the facility shall not be hampered' might be added at the end of the text proposed by Australia."

5 OR 43

Australia: "...The concept was spelt out in Part I...and was implicit throughout the document."

7 OR 43

Italy: "...the Agency would not derive from the provisions by Paragraph 14 any right to take unilateral decisions in the matter."

12 OR 43

IAEA: "Paragraph 14 as amended was accepted."

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INFCIRC/153 Paragraph 47

RE-EXAMINATION OF DESIGN INFORMATION

47. The Agreement should provide that design information shall be re-examined in the light of changes in operating conditions, of developments in safeguards technology or of experience in the application of verification procedures, with a view to modifying the action the Agency has taken pursuant to Paragraph 46 above.

15 Doc 62/Rev.1

15. The Agreement should:

(a) Provide that design information shall be re-examined to take account of:

(i) Any modification of a facility, including changes in operating procedures and conditions, expected to result in a change of any of the design parameters defined for safeguards purposes in the Subsidiary Arrangements in respect of that facility; and

(ii) The development of new safeguards methods and techniques; and

(b) Further provide that:

(i) After consultation with the State, the Agency may, as a result of its re-examination of the design information, change the action it has taken in accordance with the relevant parts of Paragraph 14;

(ii) The information referred to in sub-paragraph (a)(i) above shall be provided for examination sufficiently in advance of the time at which the facility begins to operate according to the modified parameters, in order to permit the Agency to make the necessary changes and to apply safeguards procedures accordingly; and

(iii) Information on modifications other than those referred to in sub-paragraph (a)(i) above shall be provided not later than six months after such modifications have been completed.

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IAEA: "In particular, the definition of material balance areas and the selection of strategic points must be considered as a continuing process in order to maintain flexibility, adjust to changing operating conditions and take account of the development of new safeguards technology.

Doc 98 Canada Proposal

Re-examination of design information

15. The Agreement should provide that design information shall be re-examined in the light of changes in operating conditions, developments in safeguards technology or experience in the application of verification procedures with a view to modifying the action the Agency has taken pursuant to Paragraph 14 above.

16 OR 42

Canada: "...The overriding consideration was that the agreement should provide that design information in respect of a modification of a facility expected to result in a change in any of the design parameters included for safeguards purposes in the 'subsidiary arrangement' should be made available to the Agency..."

35 OR 42

India: "...the word 'development' should be replaced by 'developments' [in Doc 98].

36 OR 42

IAEA: "...the text of Paragraph 15 [in Doc 22/98] as amended orally by...India [was accepted]."

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INFCIRC/153 Paragraph 48

VERIFICATION OF DESIGN INFORMATION

48. The Agreement should provide that the Agency, in co-operation with the State, may send inspectors to facilities to verify the design information provided to the Agency pursuant to paragraph 42-45 above for the purposes stated in paragraph 46.

38(a) Doc 62/Rev.1

- (a) The verification in connection with the examination of design information that the facility will permit and continues to permit the effective application of safeguards;

50 OR 48

Italy: "observed that several delegations, and in particular Canada, had felt that the provisions appearing in sub-paragraph (a) [above] would be more suitably inserted in the material already formulated on the examination of design information [Doc 92/Rev.1, Paragraphs 15-20]. The Italian delegation therefore wished to put forward an oral amendment to that effect."

19.A Doc 25 Italy Proposal

Evaluation of methods for safeguarding nuclear material

19.A. The Agreement should stipulate that after the information provided for in Paragraphs 16 and 17 above has been made available to the Agency, the State and the Agency may agree on visits by inspectors to the facilities concerned for the sole purpose of evaluating the methods to be applied for the effective application of safeguards to the nuclear material in such facilities.

31 OR 49

F.R.G.: "...the verification of design information should form an integral part of the process of examining design information... [T]here must be the closest possible co-operation between the State and the Agency during the examination of design information. The administration of Agency officials to a plant in order to check that a design was in accordance with the information submitted constituted part of the co-operation laid down in the version of the original Paragraph 14 accepted by the Committee [Doc 22/92/Rev.1, Paragraph 19]. The essence of the Italian proposal was to provide for such visits by Agency officials,

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and to distinguish them from inspections - the latter being principally concerned with the amount of nuclear material present and the flow of nuclear material. Visits for design checks constituted a refinement of the safeguards system and should probably be covered in the section on design information..."

20.A Doc 129 IAEA Proposal

Verification of design information

20.A. The Agreement should provide that the Agency may send officials to facilities '[and to locations of nuclear material outside facilities]' to verify the information provided on the features of facilities' [,and on the use of such nuclear material outside facilities,]' relevant to the safeguarding of nuclear material, and to confirm that the actions to be taken by the Agency pursuant to Paragraph 19 above will permit the effective application of safeguards.

31 OR 56

IAEA: "In drafting the new provision,...Paragraph 38(a) of [Doc 22/62/Rev.1] and...the amendment thereto proposed earlier by Italy...[were used as guides]; the purpose of the new provision was to emphasize the necessity of verifying information made available to the Agency on the features of facilities and of confirming that the measures provided for [under the topic design information] would permit the effective application of safeguards."

Doc 130 Italy Proposal

Verification of design information

20.A. The Agreement should provide that the Agency in co-operation with the State may send inspectors to facilities to verify the design information provided to the Agency pursuant to Paragraphs 15-18 above.

32 OR 56

Italy: "...[Doc 130] was simpler [than the IAEA Proposal], it mentioned the co-operation between the Agency and the State and did no more than refer to Paragraphs 15-18 [design information], which had made it possible to delete the second half of Paragraph 20.A as proposed by the [IAEA]."

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35 OR 56

IAEA: "...using the term 'officials' [as proposed in Doc 129] ...would make it possible for the Agency to carry out the verification operation as soon as necessary... [S]ince designation of inspectors would be subject to the approval of the State, the Agency would, in the same spirit, take care to nominate officials to whom States had no objections."

36 OR 56

U.K.: "...the simplest answer...was to adopt the Italian amendment, which spoke of inspectors. Beyond that, the amendment specified that the Agency should act 'in co-operation with the state', a provision which gave the State concerned the opportunity of entering reservations in respect of the selection of officials by the Agency."

37 OR 56

"...it seemed a rather difficult matter to supply confirmation [that the measures to be taken by the Agency pursuant to Paragraph 19 would permit the effective application of safeguards] on the basis of results of an inspection mission carried out at the very start of operations..."

38 OR 56

France: "...the term 'inspector' [was] more suitable in a legal text. In any case, there was nothing to prevent the Agency, pending the designation of inspectors, from assigning missions to its officials, who as was well known, were always well received in Member States."

39 OR 56

F.R.G.: "...It could not be emphasized too strongly that States must be granted the right to reject the officials or inspectors proposed, in view of the complex and delicate character of the verification procedure. Furthermore,...how [could] the inspectors responsible for verifying information...confirm the effectiveness of the measures which the Agency would adopt at a later date on the basis of their reports."

42 OR 56

Hungary: "...if it was desired that the Agency should be able to define material balance areas correctly, it was unfortunate that the Italian amendment deprived the Agency of the possibility of verifying the use of nuclear material outside facilities..."

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43 OR 56

Australia: "...Unlike [Hungary]...did not consider it necessary to retain the provisions appearing within square brackets in the [IAEA's] version, especially...[if] the Committee would adopt a definition of 'facility' which would make such a precaution unnecessary..."

44 OR 56

U.S.: "...given the delicate nature of the verification, the term 'inspector' undoubtedly offered the maximum guarantees to the States in regard to the recruitment and qualifications of those who would be entrusted with such verification."

45 OR 56

"...if the Committee adopted a restricted definition of the term 'facility', certain locations would not be covered by inspection, but what sense would there be in sending inspectors to verify the accuracy of information which a State would not have made available to the Agency because it was not bound to do so?"

53 OR 56

Hungary: "...if no mention was made of the purposes there was a risk of obtaining information which was exact but insufficient, hence the importance of the reference and Paragraph 19."

54 OR 56

France proposed: "The agreement should provide that the Agency, in co-operation with the State, may send inspectors to facilities to verify the design information to the Agency pursuant to Paragraph 15-18 above for the purposes stated in Paragraph 19."

55 OR 56

"The formulation was accepted."

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INFCIRC/153 Paragraph 58

RECORD SYSTEM

Operating records

58. The Agreement should provide that the operating records shall set forth as appropriate in respect of each material balance area:

- (a) Those operating data which are used to establish changes in the quantities and composition of nuclear material;
- (b) The data obtained from the calibration of tanks and instruments and from sampling and analyses, the procedures to control the quality of measurements and the derived estimates of random and systematic error;
- (c) The description of the sequence of the actions taken in preparing for, and in taking, a physical inventory, in order to ensure that it is correct and complete; and
- (d) The description of the actions taken in order to ascertain the cause and magnitude of any accidental or unmeasured loss that might occur.

22 Doc 62/Rev.1

C. Operating records

22. Provisions should be included for the operating records to document in respect of each material balance area:

- (a) The current record of those operating parameters which are used to establish changes in the quantities and composition of the nuclear material;
- (b) The data obtained from the calibrations and the measurement quality control procedures for tanks, instruments, sampling and analytical methods, and the corresponding estimates of the random and systematic errors;
- (c) The description of the sequence of actions taken for the preparation for, and the taking of, the physical inventory in order to ascertain the correctness and completeness of those inventory taking; and
- (d) The description of actions taken in order to ascertain the source and magnitude of unmeasured losses.

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IAEA: "These records are particularly useful in the evaluation of significant amounts of material unaccounted for (MUF)."

Doc 95 U.K. Proposal

22. Provision should be included for the operating records to document as appropriate in respect of each material balance area:

- (a) The current record of those operating measurements which are used to establish changes in the quantities and isotopic composition of the nuclear material;
- (b) The data obtained from calibration of tanks and instruments and from sampling and analytical methods; the quality control procedures for measurements; and the derived estimates of random and systematic error;
- (c) The description of the sequence of actions taken in preparing for, and in taking, a physical inventory, in order to ensure that it is made correctly and completely; and
- (d) The description of actions taken in order to ascertain the cause and magnitude of an accidental and unmeasured loss, if it should occur.

14 OR 43

U.K.: "...The matter of substance related to sub-paragraph (d), ...that the word 'source' should be replaced by the word 'cause' ...the purpose of its amendment was to stress the cause of the loss, whether the loss were accidental, unmeasured, or both..."

18 OR 43

Japan: "...it should be made clear that the sole purpose of the operating records, as far as the Agency was concerned, was to enable the inspector to evaluate significant amounts of material unaccounted for (MUF). However, there was an item missing from the U.S. list, namely the operational history of a facility in terms of input and throughput... [T]he history of operation should be listed first and...the substance of the [IAEA] comment on Paragraph 22 is [Doc 62/Rev.1] should be inserted as a qualification of the four items listed in the U.K. amendment."

19 OR 43

Denmark: "...some provision should be made in subsidiary arrangement for recording operations that would not necessarily have to be reported..."

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21 OR 43

U.S.: "...The purpose of maintaining the records provided for in Paragraph 22 was broader than the mere examination for significant quantities of MUF."

23 OR 43

Hungary: "...the impression should not be given that checking of the operating records of facilities would be an exceptional event requiring excessive quantities of MUF as justification; random checks for other purposes would also be helpful.

25 OR 43

Canada: Re the value of operational history data: "The importance of that point had...been recognized in the paragraph which made provision for records to be retained for at least five years [23 Doc 92/Rev.1].

28 OR 43

Japan: "...the words 'as appropriate' in the first sentence of the U.K. amendment were vague and could be construed as meaning the Agency should be able to request whatever records it wanted at any time it saw fit. Some restriction should be placed on the Agency's freedom in that respect."

29 OR 43

"...the operational history...should suffice for the Agency's inspectorate to determine whether the reports submitted to it were consistent with the records and whether the facility was being used for the intended purpose."

30 OR 43

"...The additional sentence [proposed by Japan] would constitute a certain restriction as to the records which the Agency could request."

38 OR 43

IAEA: "...records were not to be sent to the Agency; only reports provided for in Paragraphs 24-36 [Doc 62/Rev.1] were to be sent to the Agency. The four types of records listed in Paragraph 22 were those which would be of value for inspection purposes, but a nuclear facility would normally keep many other records as well which would not be made available to the Agency."

33 OR 43

India: "suggested replacing 'operating measurements' in subparagraph (a) of the U.K. amendment by 'operating data'."

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34 OR 43

"As to the Japanese proposal relating to operational history,... it would suffice simply to delete the word 'current' in sub-paragraph (a)..."

Doc 100 Japan Amendment to Doc 95

New sub-paragraph (a)

"History of operation in terms of general output or throughput;" in sub-paragraph (b), replace the phrase 'the quality control procedures for measurements' by 'the procedures to control the quality of measurements.'

50 OR 43

India: "Under Paragraph 7 of the material for Part I of agreements the Agency would clearly be responsible for verifying complete operations. It therefore seemed unnecessary to accept the additions proposed by Japan in [Doc 100]..."

58 OR 43

F.R.G.: "...Paragraph [22] was in fact dealing with two distinct matters, namely that of presentation and that of the substance of the information required. It was the Committee's duty now to facilitate the Agency's safeguards procedure by defining more precisely what was the minimum information required, and what mechanism was needed to extract the maximum use from it."

59 OR 43

"...A close scrutiny of the amendment of Paragraph 22 proposed by the United Kingdom showed that it was now intended to include in operating records more information than was strictly needed for routine inspections; indeed it appeared to confuse under one provision two types of information, namely information required for normal operating reports (or for verification of such reports, as under paragraph 38) and information required only in special circumstances. The Committee should make a clear distinction between the two kinds in information and define as exactly as possible what information was required for each purpose."

64 OR 43

IAEA: "...the Committee would like Paragraph 22 to be worded on the following lines:

"Provision should be included for the operating records to document as appropriate in respect of each material balance area:

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- (a) The record of those operating data which are used to establish changes in the quantities and composition of the nuclear material;
- (b) The data obtained from calibrations of tanks and instruments and from sampling and analytical methods; the procedures to control the quality of measurements; and the derived estimates of random and systematic error;
- (c) The description of the sequence of actions taken in preparing for, and in taking, a physical inventory, in order to ensure that it is made correctly and completely; and
- (d) The description of actions taken in order to ascertain the cause and magnitude of an accidental or unmeasured loss, if it should occur."

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INFCIRC/153 Paragraph 62

REPORTS SYSTEMS

Accounting reports

62. The Agreement should stipulate that the Agency shall be provided with an initial report on all nuclear material which is to be subject to safeguards thereunder. It should also be provided that the initial report shall be dispatched by the State to the Agency within 30 days of the last day of the calendar month in which the Agreement enters into force, and shall reflect the situation as of the last day of that month.

27 Doc 62/Rev.1

Accounting reports

27. The Agreement should state that the Agency shall be provided with an initial report on all nuclear material which is to be subject to safeguards under the Agreement in the State. It should also be provided that the initial report shall be provided to the Agency within two weeks from the last day of the calendar month in which the Agreement enters into force, and shall reflect the situation as of the last day of that month.

Doc 62/Rev.1

IAEA: "The initial report serves as the first basis for the implementation of safeguards in the State. It should normally be the objective of the initial report to establish the initial inventory for each material balance area in the State, but this assumes a sequence of events leading to the entry into force of the Agreement which would permit definition of a material balance area before that time. If this is not the case an initial report for the whole State should be submitted immediately upon entry into force of the Agreement, and in the interim the Agency's report system would be applied in respect of such material accounting areas as the State or facility operator may have established for their own control purposes, until such time as material balance areas for Agency safeguards are defined in the Subsidiary Arrangements."

63 OR 28

U.S.: "The initial report should...be submitted without awaiting the entry into force of the subsidiary arrangements -- that is to say within two weeks after the entry into force of the actual agreements."

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55 OR 29

U.S.: "[Re] the transmission to the State of information on all the Agency's verification measures. If too much information were divulged, more detailed inspections would be required subsequently, with a consequent increase in the cost. The element of uncertainty regarding the level of inspections being carried out should be retained, if only in the interest of economy."

61 OR 29

U.K.: "...[Re] the provision of information by the Agency to the State... [I]t might be difficult to be certain, on the basis of a single inspection, that diversion of nuclear material was not occurring and a clear picture of the situation might only emerge over a period of months or years. To avoid the possibility of misunderstanding,...the Agency's report back to the State [should] be couched in fairly general terms [e.g.]...the State's accounting system appeared to be operating satisfactorily."

27 OR 44

IAEA: "...the Committee was willing to accept Paragraph 27 as modified by...Japan [in Doc 103]. The first sentence would remain thus unchanged from [Doc 62/Rev.1], and the second sentence would read:

"It should also provide provided that the initial report shall be dispatched by the State to the Agency within 30 days of the last day for the calendar month in which the Agreement enters into force, and shall reflect the situation as of the last day of that month."

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INFCIRC/153 Paragraph 68

SPECIAL REPORTS

68. The Agreement should provide that the State shall make special reports without delay:

- (a) If any unusual incident or circumstances lead the State to believe that there is or may have been loss of nuclear material that exceeds the limits to be specified for this purpose in the Subsidiary Arrangements; or
- (b) If the containment has unexpectedly changed from that specified in the Subsidiary Arrangements to the extent that unauthorized removal of nuclear material has become possible.

35 Doc 62/Rev.1

Special reports

35. The Agreement should provide that the State shall make special reports without delay:

- (a) If any unusual incident occurs involving actual or potential loss of, or damage to, nuclear material;
- (b) If nuclear material has escaped from its containment; and
- (c) If there is good reason to believe that nuclear material is lost or unaccounted for in quantities that exceed significantly the limits accepted by the Agency and specified in the Subsidiary Arrangements.

Doc 62/Rev.1

IAEA: "The limits to be accepted by the Agency for each facility and specified in the Subsidiary Arrangements would have to be chosen on the basis of the desired capability of material balance accounting to detect unmeasured losses and the best experience available for the processes, measurement systems and the types of plants concerned and the Subsidiary Arrangements should also make explicit provision for continuing review of these limits."

54 OR 46

Egypt: "recalling the difficulties which the Committee had encountered when trying to specify limits for MUF, expressed concern that similar difficulties might arise in connection with the specification of a limit for MUF beyond which special reports were required."

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55 OR 46

France: "...the Committee [might] adopt the concept of 'significant quantities' rather than attempt to specify limits which would have to be reviewed at frequent intervals."

57 OR 46

F.R.G.: "...[Re] unexpected changes in containment conditions: If a containment suffered physical damage without then being a loss of nuclear material, it would simply be a question of the State repairing the damage, unless the damage in question took the form of -- for example -- the breaking of an inspector's seal, in which case the Agency would have to be informed;..."

59 OR 46

IAEA: "...The specification of MUF limits beyond which special reports would become necessary,...did not carry with it any implication that the Agency would accept such MUF without taking the usual steps to clarify its causes..."

Doc 115 Japan/Norway Proposal

35. The Agreement should provide that the State shall make special reports without delay:

- (a) If any unusual incident or other circumstances lead the State to believe that there is or may have been loss of nuclear material that exceeds the limits to be specified for this purpose in the Subsidiary Arrangements; and
- (b) If conditions of containment have changed from those specified in the Subsidiary Arrangements in accordance with Sub-paragraphs 13(b) and 14(f) above, to the extent that such change can significantly affect the functions of the containment.

3 OR 47

IAEA: "Noted with regret that...the words 'actual or potential' loss of nuclear material no longer appeared. The objective of safeguards was to detect any diversion of nuclear material in good time and therefore the words 'potential loss' were important, indicating a contingency which might easily lead to a diversion of nuclear material from its proper use..."

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6 OR 47

U.K.: "...a threshold beyond which certain predetermined actions would be taken [needed to be defined]. It was obvious that for quantities below that threshold any action taken would be reported as a matter of course in the next accounting; for quantities above that threshold a special report of any action taken would presumably be submitted at some other subsequent date..."

7 OR 47

Japan: "...omitting the words 'actual or potential' in sub-paragraph (a) was to avoid the risk that the phrase might be interpreted as referring exclusively to the future..."

8 OR 47

U.S.: "...the words 'significantly affect' in sub-paragraph (b) were too imprecise;...prefer the words 'reduce the effectiveness'..."

9 OR 47

F.R.G.: "...in sub-paragraph (b) it was important to distinguish between measures which might be taken by the Agency as part of its verification procedure and other containment measures which might be applied by the State to a particular installation as part of its general safeguards procedure. A special case would be required only in the former but not in the latter case..."

16 OR 47

IAEA: "...The special reports were to cover extraordinary losses of material that were not part of the process of a plant, for example, losses due to a breakdown of the containment... Special heavy atoms which did not normally disappear and which, in theory, were recoverable even from waste, might in practice be unrecoverable if, for instance, they flowed onto the floor; such an occurrence would constitute an extraordinary loss calling for the submission of a special report."

17 OR 47

"...the use of the plural ['limits'] was correct; the limit would depend on the kind of material involved in the loss."

19 OR 47

Japan: "...whether containment was the responsibility of the State or the Agency,...the reference in sub-paragraph (b) to two specific paragraphs made it clear that the containment referred to was the containment agreed to after the selection had been made in

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accordance with sub-paragraph 14(f) and modified in accordance with the paragraph on government modification of facilities, and not the containment used by the operator for his own purposes."

23 OR 47

U.S.S.R.: "It would be better to keep to the plural word 'limits.' However, the limits in question would depend on the material balance area involved; the attitude to a loss of half a kilogram of plutonium in store would differ from that to a similar loss in a large nuclear plant. It would be useful to insert the words 'for each material balance area' after 'this purpose' in sub-paragraph (a)."

25 OR 47

IAEA: "...the term 'unusual incident' [would]...cover ['civil disturbances' in addition to technical incidents,] although that had not been the intention when drafting the provision."

26 OR 47

"Relating the limits referred to in sub-paragraph (b) in [Doc 115] to material balance areas might be helpful in certain cases, for example, in the case of an accidental loss of material in storage, where such a loss could only be connected with a criticality-type incident or with a human act... [A] series of limits could be established to avoid the risk of slipping back to the 'normal operating losses' practice."

29 OR 47

Canada: "...the provisions suggested in the original text were intended to cover a number of situations, and their purpose was to provide the inspectorate with information which would assist it."

32 OR 47

F.R.G.: "...there might be an unexpected change in containment, which might make it possible for material to be removed without authority. It might be wise to insert the word 'unexpectedly' before 'changed' in the first line of sub-paragraph (b)..."

44 OR 47

Canada: "the key words in the introductory part of the original text were 'without delay', which made it clear that a different type of report was involved than in the case of modifications of containment."

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48 OR 47

Japan: "...after consultation with other representatives, the sponsors of the joint amendment contained in [Doc 115] had decided to redraft it. Sub-paragraph (a) would remain practically the same, the only change being the deletion of 'other' in the first line and the substitution of 'a state' for "the State". The new sub-paragraph (b) would read 'If containment has unexpectedly changed from that specified in the Subsidiary Arrangements to the extent that unauthorized removal of nuclear material has become possible'. ...[S]ub-paragraph (b) made no reference to breakage of an Agency seal and...that case could be covered by an appropriate definition of containment... [N]o provision was made under the present heading for notification of the Agency regarding an incident which would require changes in the Agency's inspection schedule."

51 OR 47

IAEA: This redraft was accepted.

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INFCIRC/153 Paragraph 69

AMPLIFICATION AND CLARIFICATION OF REPORTS

69. The Agreement should provide that at the Agency's request to the State shall supply amplifications or clarifications of any report, in so far as relevant for the purpose of safeguards.

18 OR 29

F.R.G.: "...suggested the addition after Paragraph 15 [Doc 3] of a new paragraph along the lines of Paragraph 44 of the Safeguards Document and reading as follows: 'at the Agency's request the State shall submit amplifications and clarifications of any report, in so far as relevant for the purpose of safeguards under this Agreement.'"

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INFCIRC/153 Paragraph 70

INSPECTIONS

General

70. The Agreement should stipulate that the Agency shall have the right to make inspections as provided for in Paragraphs 71-82 below.

37 Doc 62/Rev.1

INSPECTIONS

A. General Procedures

37. The Agreement should provide that the Agency shall have the right to inspect nuclear material and facilities containing or to contain nuclear material in accordance with the provisions of Paragraphs 38 to 46 below.

37 Doc 116 Japan Proposal

37. The Agreement should provide that the Agency shall have the right to inspect nuclear material and its flow in accordance with the provisions of Paragraphs 38 to 46 below. It should further be provided that the function of inspection shall be carried out by the inspectors only to the extent specified in these paragraphs and other relevant paragraphs of the Agreement.

1 OR 48

Japan: "...[replace] the words 'to inspect nuclear material and its flow' in the first sentence by 'to conduct inspections' and [delete] the words 'function of' in the second sentence..."

2 OR 48

"The purpose of the second sentence was to specify from the outset the distinction that should be made between the Agency's right to organize inspections and the functions of inspectors."

4 OR 48

U.S.: "...the second sentence [of the Japanese proposal in Doc 115] added nothing to the original version of Paragraph 37. It was understood, under any legal system, that no inspector could exercise powers exceeding those of the agency designating him."

8 OR 48

F.R.G.: "...The second sentence of the [Japanese] amendment should be considered at the same time as the paragraphs concerning designation of inspectors..."

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12 OR 48

U.K.: "suggested...deletion of the words 'the provisions of'..."

40 Doc 129

General

40. "The Agreement should stipulate that the Agency shall have the right to make inspections as provided for in Paragraphs 41-46 below [Purposes and scope of inspections]."

1 OR 57

F.R.G.: "...During the earlier debate on inspections, attention had been drawn to the need for describing the relationship between the Agency's inspection activities and those of the State system... [T]he correct place for such a description would be in subsequent paragraphs, but if no place were found for it there, it would want an addition to be made to Paragraph 40..."

4 OR 57

IAEA: Paragraph 40 was provisionally accepted.

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INFCIRC/153 Paragraphs 71-73

PURPOSES OF INSPECTIONS

71. The Agreement should provide that the Agency may make ad hoc inspections in order to:

- (a) Verify the information contained in the initial report on the nuclear material subject to safeguards under the Agreement;
- (b) Identify and verify changes in the situation which have occurred since the date of the initial report; and
- (c) Identify, and if possible verify the quantity and composition of, nuclear material in accordance with Paragraphs 93 and 96 below, before its transfer out of or upon its transfer into the State.

72. The Agreement should provide that the Agency may make routine inspections in order to:

- (a) Verify that reports are consistent with records;
- (b) Verify the location, identity, quantity and composition of all nuclear material subject to safeguards under the Agreement; and
- (c) Verify information on the possible cause of material unaccounted for, shipper receiver differences and uncertainties in the book inventory.

73. The Agreement should provide that the Agency may make special inspections subject to the procedures laid down in Paragraph 77 below:

- (a) In order to verify the information contained in special reports; or
- (b) If the Agency considers that information made available by the State, including explanations from the State and information obtained from routine inspections, is not adequate for the Agency to fulfill its responsibilities under the Agreement.

An inspection shall be deemed to be special when it is either additional to the routine inspections effort provided for in Paragraphs 78-82 below, or involves access to information or locations in addition to the access specified in Paragraph 76 for ad hoc and routine inspections, or both.

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38 Doc 66/Rev.1

38. The Agreement should specify that inspections will be carried out for the following main functions:

- (a) The verification in connection with the examination of design information that the facility will permit and continues to permit the effective application of safeguards;
- (b) The verification of the initial inventory of nuclear material;
- (c) The verification that reports are consistent with records;
- (d) The verification of inventory and flow of nuclear material by direct observations, independent measurements of nuclear material or other independent and objective methods;
- (e) The application of containment and surveillance methods, such as instruments, seals or other devices, which monitor the integrity of containment measures and supplement material accountancy;
- (f) The verification of reports on abnormal losses of nuclear material or the investigation of an incident that has given rise to a special report;
- (g) The evaluation of potential accumulations of unmeasured inventory and unmeasured losses; and
- (h) The verification of nuclear material in connection with its international transfer.

38 Doc 117 Japan Proposal

38. The Agreement should specify that, within the limitations imposed by other relevant paragraphs thereof, the objectives of inspections shall be:

- (a) To verify that the facility will permit effective application of safeguards in accordance with the examination of design information;
- (b) To verify the initial inventory of nuclear material;
- (c) To verify that reports are consistent with records;

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- (d) To verify inventory and flow of nuclear material by direct observations, independent measurements of nuclear material or other independent and objective methods;
- (e) To verify the effectiveness of containment by direct observation of instruments, seals and other devices;
- (f) To verify the content of special reports; and
- (g) To evaluate the amount and accuracy of material unaccounted for.

17 OR 48

Japan: "...delete the words 'within the limitations imposed by other relevant paragraphs thereof' and...replace the word 'objectives' by 'purposes'..."

21 OR 48

"Sub-paragraph (g)...was concerned with evaluating the material unaccounted for (MUF) and not with the reasons for MUF."

Doc 113 Switzerland Proposal for Addition

(ee) Intervention for purposes of surveillance when special circumstances have required the removal of seals by the operator (an event of which the Agency must be informed immediately by telegram);

22 OR 48

Switzerland: "...the problem posed by removed of seals was important [and]...was mentioned only in the subsidiary arrangements, whereas it should in fact be included in the principal agreement..."

23 OR 48

IAEA: "...The purpose of [Sub-paragraphs (f) and (g)] was to show, in collaboration with the operator, that an amount of MUF during the reprocessing of irradiated fuel, for example, could be reasonably explained and did not constitute an attempt at diversion."

25 OR 48

Italy: "...verification was not the responsibility of the inspector. Part I of the material for Agreements provided that the State should supply the Agency with information on facilities,

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but it was not stated that the inspector should verify the accuracy of such information on the spot. Sub-paragraph (a), however, did give inspectors a right of examination."

26 OR 48

"...Sub-paragraph (a)...[should be] inserted at the end of Paragraph 12..."

30 OR 48

F.R.G.: "Regarding sub-paragraph (g) of the Japanese proposal ...evaluation of MUF was not the purpose of inspection but one of the main purposes of the verification activities of the Agency, and the inspector's function was merely to verify what happened with nuclear material and to submit a report to his superiors;... suggested that the word 'evaluate' be replaced by the word 'verify' which defined more exactly the task of the inspector."

35 OR 48

Hungary: "[Re] sub-paragraph (f), since the reports on abnormal losses of nuclear material did not necessarily belong to the category of special reports, and if losses or increases of nuclear materials occurred it would undoubtedly not be enough for the State to submit special reports to the Agency; it would also be necessary for the inspector to verify the information supplied on such abnormal losses..."

47 OR 48

U.S.: "...[S]ub-paragraph (f) of the Japanese amendment...[should] be modified slightly to read: '(f) to verify the information contained in special reports'."

21 OR 49

U.S.: "...Paragraph 38 should list all recognized aspects of inspection."

22 OR 49

"...[I]nspections would assist the Agency in selecting optimum safeguards procedures. Visual familiarity with a facility as a necessary addition to the knowledge gained from reports on design information; only such composite knowledge of a facility could enable the Agency to select the best measuring points, material balance areas and verification procedures."

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27 OR 49

Canada: "The Japanese suggestion that inspections which could be regarded as routine could be grouped together on a functional basis had muchmer it ...[T]he other provisions contained in Paragraph 38...[should be studied to see] where they might be filled in..."

46 OR 49

Japan: "...Much of the difficulty encountered in formulating Paragraph 38 arose...from the fact that the steps of safeguards were not clearly identified. Such steps were the receipt of design information, examination, verification, the determination of MUF, evaluations by various procedures, consultation and action. If a clear, generally agreed picture of the specific steps were obtained, Paragraph 38 and other related paragraphs would fall into place quite logically..."

Doc 129 IAEA Proposal

Purposes and Scope of Inspections

41. The Agreement should provide that the Agency may make routine inspections in order:
- (a) To verify that reports are consistent with records;
 - (b) To ascertain the identity, quantity, location and composition of all nuclear material subject to safeguards under the Agreement;
 - (c) To ascertain the possible cause of material unaccounted for, shipper/receiver differences and uncertainties in the book inventory; and
 - (d) To keep under review the interrelationship between the application of safeguards by the Agency and the operation of the State's accounting and control system.
42. The Agreement should provide that the Agency may make non-routine inspections in order:
- (a) To verify the information contained in the initial report on the nuclear material to be subject to safeguards under the Agreement;
 - (b) To verify the information contained in special reports;

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- (c) To identify, and if possible verify the quantity and composition of, nuclear material in accordance with Paragraph '[3 and 6]' [Temporary numbering provisions on international transfers in Doc 92/Rev.1] below, before its transfer out of or upon its transfer into the State; and
- (d) To obtain additional information if the information obtained by means of routine inspections is insufficient to explain changes in the quantity and composition of nuclear material subject to safeguards under the Agreement.

Doc 132 Belgium/Japan/Netherlands Proposal

Purposes and Scope of Inspections

40.A. The Agreement should provide that the Agency may make inspections in order to verify the information contained in the initial report on the nuclear material to be subject to safeguards under the Agreement.

41. The Agreement should provide that the Agency may make routine inspections, in order:

- (a) To verify that reports are consistent with records;
- (b) To determine the location, identity, quantity and composition of any nuclear material subject to safeguards under the Agreement;
- (c) To identify, and if possible verify the quantity and composition of nuclear material in accordance with paragraph [3 and 6] below, before its transfer out of or upon its transfer into the State;
- (d) To obtain information on the possible cause of material unaccounted for, shipper/receiver differences and uncertainties in the book inventory.

42. The Agreement should provide that the Agency may make special inspections in order:

- (a) To verify the information contained in special reports;
- (b) To obtain additional information if the information obtained by means of routine inspections is insufficient to explain unusual changes in the quantity and composition of nuclear material subject to safeguards under the Agreement.

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7 OR 57

Belgium: "...the purpose of the proposal [in Doc 132] was to distinguish between three different categories of inspection that would take place. The paragraph numbered 40.A dealt with inspections by the Agency for the purpose of identifying at the start of the application of safeguards the nuclear material to be subject to safeguards. The following paragraph, Paragraph 41, in the introductory part of which the word "routine" should be inserted before "inspections", dealt with normal inspections and included inspections relating to international transfers of nuclear materials. The paragraph numbered 42 dealt with inspections that might be required in "abnormal" situations. What was being proposed was, in fact, a rearrangement of the suggested provisions, rather than substantial amendments to them."

9 OR 57

U.S.: "...Paragraph 40.A...did not take account of the main purpose of the initial inspection by the Agency, namely to bridge the gap in time between the entry into force of the agreement and the conclusion of the subsidiary arrangements. It was important that the Agency should be able to verify not only the information contained in a State's initial report, but also changes in the nuclear materials subject to safeguards that might have taken place between the submission of that report and the conclusion of subsidiary arrangements. The point might be met by adding at the end of the paragraph the words: "and information on such material obtained during these inspections".

11 OR 57

U.S.: "...Under the provisions of Paragraph 32 in [Doc 92/Rev.1] as accepted by the Committee in October, on the conclusion of a safeguards agreement between a State and the Agency, the former would be called upon to provide the latter with an initial report on all nuclear materials to be subject to safeguards thereunder. By the time the initial inspection took place, the status of that nuclear material would have changed, and the Agency would have to engage in a continuous process of verification on the basis of the initial report until such time as the subsidiary arrangements had been concluded and arrangements made for routine inspections. The provision now under consideration should take into account the need to verify changes in the status of nuclear materials as initially reported by the State. It was merely a matter of drafting; what the inspectors would have to do would be to verify the actual status of the nuclear materials to be subject to safeguards."

12 OR 57

U.K.: "...the [U.S.] point might be met by inserting the words "the continuing accuracy of" before "the information" in the paragraph."

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15 OR 57

Australia: "...It would be better to resort to sub-paragraphs: The introductory part would then end with the words 'in order to' sub-paragraph (a) would consist of the remainder of the present text, and a sub-paragraph (b) would be added, reading: '(b) Identify and, if possible, verify changes in the situation which have occurred since the date of the initial report'."

23 OR 57

IAEA: Paragraph 40.A in the form suggested by Australia was accepted with the omission of the words 'if possible' from sub-paragraph (b).

24 OR 57

U.S.: Re Paragraph 41 sub-paragraph (c) "...Although inspections of transfers could be classified as normal, they were not the kind of inspection that would be associated with the inspection of nuclear plants within a State. Sub-paragraph (c) could either be included under Paragraph 40.A or be taken into account when the question of frequency of inspections was considered."

69 OR 57

India: "...in favor of applying the term 'ad hoc' in Paragraph 40.A, 'routine' in Paragraph 41 and 'special' in Paragraph 42 in order to emphasize the category of inspection involved."

70 OR 57

"...[A]ny losses beyond the limits defined in subsidiary arrangements would necessitate a report from the country concerned. In the case of other, smaller differences, the Agency was quite free under Paragraph 39 of [Doc 92/Rev.1] to ask for amplifications or clarifications. Such clarifications would constitute the information subject to verification under sub-paragraph (d) of [Doc 132] on a routine basis."

74 OR 57

IAEA: "...there seemed to be general acceptance of [the] earlier summing up with regard to Paragraph 40.A with the addition of the words 'ad hoc' between 'make' and 'inspections' in the first line and the inclusion of sub-paragraph 41 (c) as sub-paragraph (c). Paragraph 41 appeared to be generally acceptable also, if sub-paragraph (b) were amended to read: 'verify the location...of all nuclear material...' and the word 'verify' replaced the word 'obtain' in sub-paragraph (d)..."

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Doc 131 Poland Proposal

Replace sub-paragraph 42(d) [of Doc 132] by:

- (d) To obtain additional information if the information obtained by means of routine inspections is insufficient to enable the Agency to achieve the purposes stated in Paragraph 41 above.

76 OR 57

Poland: "...[This amendment] would eliminate the term 'unusual changes,' as used in the joint amendment [Doc 132], which might give rise to varying interpretations."

87 OR 57

U.S. (in support of F.R.G. comment):

"...[T]here were three circumstances which might call for a special inspection:

- (a) Receipt by the Agency of a special report (covered by sub-paragraph 42(a));
- (b) The possibility of a loss of nuclear material in excess of the amount specified for submission of a special report but in respect of which no such report was received by the Agency; and
- (c) The possibility of a loss of nuclear material in quantity not greater than the specified limits for submission of a special report but nevertheless meriting special investigation by the Agency in order to determine its extent and to evaluate the possible causes of the loss."

89 OR 57

U.S.: "...[Re] Paragraph 41, concerning the concept of 'verifying' as opposed to 'obtaining' information...it was [not] outside the scope of an inspector's duties to obtain information independently. Under the provisions of Part I, the Agency was called upon to verify that the State was complying with its obligations in regard to nuclear material, and inspection was one of the mechanisms to be employed in such verification. In carrying out that duty, the Agency must be able to obtain information which need not necessarily be the same as the information provided to it by the State. Under Paragraph 7 of the material for Part I of agreements, the Agency, in ascertaining that there had been no diversion of nuclear material, was empowered to include

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in its verification 'independent measurements and observations', which was tantamount to obtaining independent information. In Paragraph 41 "verification" was perhaps not an entirely inadequate term, but where special inspections were concerned it was important that the Agency's ability to obtain information should be plainly specified. Such a provision would certainly not be inconsistent with the interests of the State, which would also wish to establish that there had been no diversion of material."

90 OR 57

India: "...failed to see the need for requiring a special inspection in the case of a loss of nuclear material in an amount smaller than that specified for submission of a special report. Any verification in respect of such a discrepancy should be done in the course of routine inspections; otherwise, the Committee would be taking a retrograde step, now that agreement had been reached on differentiating between the three classes of inspection... [A]ccordingly...there was no need at all for the provision in sub-paragraph 42(b)."

Doc 133 U.S. Proposal

1. Replace sub-paragraph 42(b) by:
 - (b) To obtain additional information on the actual extent and possible causes of losses of nuclear material subject to safeguards under the Agreement when circumstances indicate that there is or may have been loss of nuclear material that exceeds the limits to be specified in Subsidiary Arrangements pursuant to sub-paragraph 38(a); and
2. Add the following sub-paragraph 42(c):
 - (c) To obtain additional information on the actual extent and possible causes of the loss of nuclear material subject to safeguards under the Agreement when the information obtained by means of routine inspections is insufficient to enable the Agency to verify such losses and evaluate their possible causes.

2 OR 58

U.S.: "...[S]uggested that the sub-paragraph could be amended as follows: in the second line, the word 'all' to be substituted for the word 'the', and the last lines to read '...to enable the Agency to verify changes in the quantity or composition of nuclear material subject to safeguards under the Agreement and evaluate the possible cause of these changes'. The object of the special inspection would be to determine the extent and possible

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causes of a loss of nuclear material, since such a loss might give rise to suspicion of diversion. The special inspection would be triggered by a situation involving loss of material or any change in material quantity or composition where the Agency was unable by routine methods to ascertain the significance of such changes."

3 OR 58

"...Provision should be included in a later chapter for a procedure whereby the Agency would, in the first instance, initiate careful consultations with the State concerned, in order to determine whether the necessary information could be obtained through regular procedures. Only after that had been done would the question of a special inspection arise..."

5 OR 58

India: "...The proposed new sub-paragraph (c), however, raised a question of principle, because of the fact that special inspections would entail access to any location in the facility and that limits were to be specified for the loss calling for such access. The case covered by the sub-paragraph could not justify a special inspection involving such access..."

6 OR 58

Italy: "...wondered whether the proposed new sub-paragraph (c) was really necessary, for its purpose was already covered by Paragraph 39 of [Doc 92/Rev.1], under which the Agency could at any time ask for amplifications or clarifications on any point in a report that was not clear. That provision amply met the United States concern, and he wondered whether the Committee should be rediscussing a matter that had already been dealt with and settled."

11 OR 58

Canada: "...Paragraph [39] made no provision for any mechanism whereby amplifications of a report might be obtained... [A]n exchange of correspondence for the purpose could be a most cumbersome and time-consuming procedure and, in a matter where time was of the essence..., the only satisfactory way to obtain the necessary information would be through on-the-spot discussions such as one might envisage taking place during a special inspection."

14 OR 58

U.S.: "...[U]nlimited access might well prove necessary in the circumstances covered by sub-paragraphs (a) and (b). In regard to sub-paragraphs (c), there could be improper treatment of nuclear material in amounts less than those specified in the subsidiary arrangements as requiring the submission of a special

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report under Paragraph 38(a)... [T]he Committee, in establishing those limits for the State's guidance, had not meant to imply that improper removal of nuclear material below those amounts would be entirely without consequence and that the Agency could disregard such possible diversions... [T]he provisions [of] Paragraphs 16 and 17 of ...Part I...dealing with measures in relation to verification of non-diversion, were relevant... [N]o limiting amounts had been set under that section, and it was clearly contrary to the State's own interest that the Agency should be placed in a position where it would have to report its inability to verify non-diversion of material because of lack of means to investigate the reasons for a loss, irrespective of amount..."

16 OR 58

Netherlands: "...On receipt of the special report, the Agency would take action... [T]he Agency would be entitled to take exceptional measures, but there were things that it could not do even in exceptional circumstances. Provisions already approved afforded security against any possible misdemeanors by the Agency's inspectors in that respect."

17 OR 58

"Then there was the situation in which the Agency might itself notice the gradual development of a dangerous situation... It was obvious that no formula would be found to cover all possible cases, and in preparing a provision, the assumption of mutual good faith must be the governing principle. There was a mechanism for dealing with States which acted in bad faith, and it was certain that if the Agency acted in bad faith, all doors would be closed to its inspectors. Cases of bad faith on either side should be regarded as an unlikely hypothesis, and the Committee should concentrate on finding a formula based on the assumption of mutual good faith. It would have to content itself with the use of vague expressions which could not be precisely defined in the context, either at the present stage or later."

19 OR 58

Switzerland: "...[S]uggested that the words 'the loss of' in the second line of sub-paragraph (c) should be replaced by 'abnormal variations in' and that the words 'to verify such losses...possible causes' at the end of the sub-paragraph should be replaced by 'to explain such variations'."

21 OR 58

U.K.: "...It should be remembered...that special inspections might be required for other reasons -- for example because the Agency had made errors due to faulty calibration of its measuring

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instruments... There was a difference between the kind of special inspection that would be required in that case and the kind that would be required if the Agency was not satisfied with the additional information it might request under the provisions of Paragraph 39."

24 OR 58

U.S.S.R.: Re sub-paragraph (c) [there were] a variety of circumstances in which it would be appropriate for the Agency to send an inspector to a facility to clarify what had taken place... [T]he provision [would not open] the door to interference by inspectors; the provisions of Paragraph 46 would insure that..."

Doc 138 Belguim/F.R.G/U.K./U.S. Proposal

1. Replace Paragraph 42 by:
 42. The Agreement should provide that the Agency may make special inspections subject to the procedures laid down in Paragraph 47:
 - (a) In order to verify the information contained in special reports; and
 - (b) If the Agency considers that information made available by the State, including explanations from the State and information obtained from routine inspections, is not adequate for the Agency to fulfil its responsibilities under the Agreement.

An inspection shall be deemed to be special when, pursuant to arrangements between the Agency and the State, the inspection is additional to the routine inspection effort provided for in paragraph...or involves access to information or locations in addition to those specified for ad hoc and routine inspections.

12 OR 12

Poland: "...[T]he words 'pursuant to arrangements between the Agency and the State' [should] be omitted... [I]nstead of mentioning routine and ad hoc inspections, it would be better...to quote the paragraphs relating to those two categories of inspections."

24 OR 12

IAEA: "...[T]he text of Paragraph 42 proposed in [Doc 138] [was accepted], subject to some modifications in drafting to be made by the Secretariat."

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INFCIRC/153 Paragraphs 74-75

SCOPE OF INSPECTIONS

74. The Agreement should provide that for the purposes stated in Paragraphs 71-73 above the Agency may:

- (a) Examine the records kept pursuant to Paragraphs 51-58;
- (b) Make independent measurements of all nuclear material subject to safeguards under the Agreement;
- (c) Verify the functioning and calibration of instruments and other measuring and control equipment;
- (d) Apply and make use of surveillance and containment measures; and
- (e) Use other objective methods which have been demonstrated to be technically feasible.

75. It should further be provided that within the scope of Paragraph 74 above the Agency shall be enabled:

- (a) To observe that samples at key measurement points for material balance accounting are taken in accordance with procedures which produce representative samples, to observe the treatment and analysis of the samples and to obtain duplicates of such samples;
- (b) To observe that the measurements of nuclear material at key measurement points for material balance accounting are representative, and to observe the calibration of the instruments and equipment involved;
- (c) To make arrangements with the State that, if necessary:
 - (i) Additional measurements are made and additional samples taken for the Agency's use;
 - (ii) The Agency's standard analytical samples are analysed;
 - (iii) Appropriate absolute standards are used in calibrating instruments and other equipment; and
 - (iv) Other calibrations are carried out;

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- (d) To arrange to use its own equipment for independent measurement and surveillance, and if so agreed and specified in the Subsidiary Arrangements, to arrange to install such equipment;
- (e) To apply its seals and other identifying and tamper-indicating devices to containments, if so agreed and specified in the Subsidiary Arrangements; and
- (f) To make arrangements with the State for the shipping of samples taken for the Agency's use.

39 Doc 62/Rev.1

39. It should be provided that the State and the Agency shall co-operate in making all the necessary arrangements to facilitate the preparation for and the taking of physical inventories of nuclear material and the taking, shipping, and, if appropriate, analysis of samples. In addition, it should be provided that the Agency may install its own instruments, provided with safing devices, if so agreed and specified in the Subsidiary Arrangements, whereas due account shall be taken of the limitations imposed by the characteristics of a plant already in operation and also of development of improved procedures for inventory taking.

Doc 118/Rev.1 Japan Proposal

Replace Paragraph 39 by:

39. The Agreement should stipulate that the provision in subparagraph 38(d) for independent measurement of nuclear material shall mean that the inspector may request, and the State shall comply with such request for, the taking of additional measurements or samples at key measurement points but that inspectors are not permitted to take the measurements or samples themselves; and that the cost of any such additional measuring or sampling shall be borne by the Agency. It should further be provided that the Agency may install its own instruments if so agreed and specified in the Subsidiary Arrangements, provided that such instruments will neither affect the safety of the facility nor hamper its construction, commissioning or operations.

50 OR 49

Japan: "...[T]here seemed little point in prescribing co-operation between the State and the Agency with respect to a specific phase of safeguards operations when Part I of material

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for agreements quite clearly stated there must be co-operation in all phases... [T]he paragraph [was therefore interpreted] to mean that the measurements and sampling entailed were additional to the normal procedures at facilities."

51 OR 49

"...If [the purpose of stipulating the limitations in the second sentence for the paragraph] were intended as an admonition to the Agency with respect to proposals for the installation of the Agency's own instruments, then it should take the form of a more general warning that the Agency instrumentation should not affect the safety, construction, commissioning or operation of a facility. That aspect had been dealt with, however, in Paragraph 14. There was a need for further clarification of the steps involved, so that it would be clear what phase of the application of safeguards was involved."

67 OR 49

U.K.: "...The best solution might indeed be to draft separate paragraphs on sampling and on the taking of physical inventories, and possibly on measurements."

77 OR 49

U.S.S.R.: "...It was important that the agreement should contain a provision stating that the State and the Agency would make arrangement for the taking of physical inventories. Provision should also be made in agreements for the taking of measurements and of samples by the Agency..."

Doc 129 IAEA Proposal

43. The Agreement should provide that for the purpose stated in Paragraphs 41 and 42 above the Agency may:

- (a) Examine the records kept pursuant to Paragraphs 21-28 above;
- (b) Make independent measurements of all nuclear material subject to safeguards under the Agreement;
- (c) Verify the functioning and calibration of instruments and other equipment;
- (d) Apply and make use of surveillance and containment measures; and
- (e) Use other objective methods, such as the making of correlations involving isotopic and power production data.

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44. It should further be provided that within the scope of Paragraph 43 above the Agency shall be enabled:

- (a) To ascertain that the operator's samples of nuclear material taken at key measurement points are representative of flow and physical inventory, to observe the sampling, to observe the treatment and analysis of the samples and to obtain duplicates of such samples;
- (b) To ascertain that the operator's measurements of nuclear material at key measurement points are representative of flow and physical inventory, and to observe these measurements and the calibration of the instruments and equipment involved;
- (c) To arrange that the operator:
 - (i) Makes additional measurements and takes additional samples for the Agency's use;
 - (ii) Analyzes the Agency's standard specimens;
 - (iii) Uses the Agency's standards in calibrating instruments and other equipment; and
 - (iv) Carries out additional calibrations if these appear necessary;
- (d) To arrange to use its own equipment for independent measurement and surveillance, and to have such equipment installed at the facility. Equipment so installed may be tamper-resistant or tamper-indicating;
- (e) To arrange to apply its seals and other identifying and tamper-indicating devices to containments; and
- (f) To arrange for the shipping of samples taken for its use.

38 OR 58

F.R.G.: "...[E]xpand the phrase [in 43(c)] to read; '(c) Verify the functioning and calibration of instruments and other measuring and control equipment;'."

43 OR 58

U.S.: "...If maximum reliance were to be placed on a State's control system, the inspectorate must have access to the data used in that system."

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47 OR 58

Canada: "...[S]ub-paragraph (e) [of Paragraph 43] could be reworded to read: 'Use other methods which have been demonstrated to be technically feasible'. By the words 'technically feasible' [it was indicated that] the methods should be efficient and accurate, that they should not interfere with the operator's activities, and that they should be cost-effective."

57 OR 58

IAEA: "... 43 (b) was an enabling provision with respect to the measurement and sampling of material on a random and statistical basis. It appeared too broad in scope, but had to be seen in the context of the statistical techniques mentioned, for example, in Part I. It would be difficult to word the paragraph more precisely as the scope of statistical techniques was not yet clear.

61 OR 58

IAEA: "...sub-paragraph (e) had originally been intended to encompass not just objective methods that were current when an agreement was concluded but also those developed subsequently..."

62 OR 58

"For correlations involving isotopic composition it would be necessary to conclude a special agreement with the operator, as it was not completely certain that the information would be included in reports, or even in records. Dynamic inventory taking in reprocessing plants was an example of what might be required. A certain vagueness in the provisions was necessary in order to allow for future developments."

77 OR 58

IAEA: "...The Committee wished to accept Paragraph 43 as set out in [Doc 129], subject to [the amendments proposed by the F.R.G in 38 OR 58 and by Canada in 47 OR 58]."

1 OR 59

Spain: [Re Paragraph 44 in Doc 129] "...proposed that references to 'the operator' should be omitted..."

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Doc 136 F.R.G. Proposal

Replace Paragraph 44 by:

44. It should further be provided that within the scope of Paragraph 43 above the Agency shall be enabled:

- (a) To observe that the sampling procedures produce samples at key measurements points for material accounting which are representative of flow and physical inventory, and to obtain duplicates of such samples;
- (b) To observe that the measurements of nuclear material at key measurement points for material balance accounting are representative of flow and physical inventory, and to observe the calibration of the instruments and equipment involved;
- (c) To arrange that:
 - (i) Additional measurements are made and additional samples taken if necessary for the Agency's use;
 - (ii) The Agency's standard specimens are analysed;
 - (iii) The Agency's standards are used in calibrating instruments and other equipment; and
 - (iv) Additional calibrations are carried out if these appear necessary;
- (d) If so agreed and specified in the Subsidiary Arrangements, to use its own equipment for independent measurement and surveillance, and to have such equipment installed at the facility. Equipment so installed may be tamper-resistant or tamper-indicating;
- (e) If so agreed and specified in the Subsidiary Arrangements, to apply its seals and other identifying and tamper-indicating devices to containments; and
- (f) To arrange for the shipping of samples taken for its use.

14 OR 59

U.S.: "...[T]he essential point was that the Agency should be able to ensure that sampling was done in accordance with standards designed to obtain representative samples..."

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15 OR 59

IAEA: "...it was important for the Agency to observe the taking of samples because of a great many facilities were not yet equipped with fully automatic sampling apparatus. The observation of sample treatment was also important; before a liquid sample was analysed, for instance, it had to be "spiked"; i.e. certain isotopes had to be added; it was therefore easy to understand that the Agency should have the opportunity of seeing that done..."

23 OR 59

IAEA: "...it appeared difficult to foresee at the time of concluding the subsidiary arrangements all cases which could arise subsequently and which would justify the Agency being enabled to use its own equipment. For that reason...it [was] desirable to provide for that possibility in the agreement itself, independently of other procedures provided for, such as the revision of the Subsidiary Arrangements."

24 OR 59

India: "...natural as it was that the agreement should recognize the Agency's right to use its own equipment to make independent measurements, it also seemed indispensable that the possibility of the Agency installing its own equipment in a foreign facility should be expressly mentioned in the Subsidiary Arrangement... [S]ub-paragraph (d) should be worded as follows: 'To arrange to use its own equipment for independent measurement and surveillance and, if so agreed and specified in the Subsidiary Arrangements, to arrange to have such equipment installed at the facility and to use it for independent measurements and surveillance'."

46 OR 59

IAEA: "...for the introductory clause of Paragraph 44 and subparagraph (a);

44. It should further be provided that within the scope of Paragraph 43 above the Agency shall be enabled:

- (a) To observe that samples for material accounting at key measurement points are taken in accordance with procedures which produce representative samples, to observe the treatment and analysis of the samples and to obtain duplicates of such samples;"

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48 OR 59

IAEA: "...suggested the following text for sub-paragraph (b):

- (b) To observe that the measurements of nuclear material at key measurement points for material balance accounting are representative, and to observe the calibration of the instruments and equipment involved;

52 OR 59

IAEA: "...sub-paragraph (c)(iv) had to be kept, because there were also calibrations, for instance of the volume of certain types of vessels, which were simply carried out with water, rather than with Agency standards. It was therefore necessary for the sake of completeness also to mention the possibility of calibration made without Agency standards."

53 OR 59

"The procedure for referring an analysis to an arbitrator in the event of differences was fairly complicated. In the case of discrepancies between the results of an analysis made by the State or the operator and those of the Agency, a new analysis might be called for and the question would then be who would make that. Therefore, as rule, samples should be available in duplicate, of which some should be analysed by the Agency and some by national or regional laboratories under contract with the Agency. For a certain percentage of the samples the Agency could make use of the Seibersdorf Laboratory."

54 OR 59

"Some means of reconciliation would have to be found in the case that there were differences between the analysis made by the State or the operator, that made by the laboratory under contract and that made by the Seibersdorf Laboratory, and the Committee might wish to consider what analysis would be binding in such a case."

60 OR 59

U.K.: "...the use of reference samples had become current practice in industry; that fact should be taken into account in the text of the agreements."

64 OR 59

F.R.G.: "...Since the word 'duplicates' was in the plural that version [in sub-paragraph (a) Doc 136] did not exclude the possibility of a number of samples greater than two."

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65 OR 59

IAEA: "...[S]ub-paragraph (c)...as presented in [Doc 136]... provided that the possibility of an analysis by an arbitrator was not excluded [was accepted]."

67 OR 59

Belgium: "...did not see the value of the second sentence in sub-paragraph (d) [Doc 136], 'Equipment so installed may be tamper-resistant or tamper-indicating', since it was provided that the Agency could install its own equipment in the facility..."

68 OR 59

IAEA: "...presumably the operator would be unable to look into or to use tamper-resistant equipment. It would obviously be difficult to ask him to consent to the installation in his facility of such equipment without advance specification of its characteristics."

76 OR 59

IAEA: "...the proposals made by the F.R.G. and by India [see Paragraph 24 above], with the omission of the second sentence [were accepted for sub-paragraph (d)]."

79 OR 59

U.K./F.R.G./Italy/U.S.S.R.: "...the identifying and tamper-indicating devices were of overriding importance in the case under consideration and the text [in sub-paragraph (c) Doc 136] should be left as it stood."

82 OR 59

IAEA: [Under sub-paragraph (f)] "...the Agency could ship samples itself or could arrange with the State (or with the operator through the State) to effect shipment. Until the samples left the site of operations, the operator would be responsible for them. Afterwards, the responsibility would lie with the State or the Agency, depending on what had been decided in the relevant arrangements."

85 OR 59

IAEA: "...sub-paragraph (f) should read:

- (f) To make arrangements with the State for the shipping of samples taken for the Agency's use."

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INFCIRC/153 Paragraphs 76-77

ACCESS FOR INSPECTIONS

76. The Agreement should provide that:

- (a) For the purposes specified in sub-paragraph 71(a) and (b) above and until such time as the strategic points have been specified in the Subsidiary Arrangements, the Agency's inspectors shall have access to any location where the initial report or any inspections carried out in connection with it indicate that nuclear material is present;
- (b) For the purposes specified in sub-paragraph 71(c) above the inspectors shall have access to any location of which the Agency has been notified in accordance with sub-paragraph 92(c) or 95(c) below;
- (c) For the purposes specified in Paragraph 72 above the Agency's inspectors shall have access only to the strategic points specified in the Subsidiary Arrangements and to the records maintained pursuant to Paragraphs 51-58; and
- (d) In the event of the State concluding that any unusual circumstances require extended limitations on access by the Agency, the State and the Agency shall promptly make arrangements with a view to enabling the Agency to discharge its safeguards responsibilities in the light of these limitations. The Director General shall report each such arrangement to the Board.

77. The Agreement should provide that in circumstances which may lead to special inspections for the purposes specified in Paragraph 73 above the State and the Agency shall consult forthwith. As a result of such consultations the Agency may make inspections in addition to the routine inspection effort provided for in Paragraphs 78-82 below, and may obtain access in agreement with the State to information or locations in addition to the access specified in Paragraph 76 above for ad hoc and routine inspections. Any disagreement concerning the need for additional access shall be resolved in accordance with Paragraphs 21 and 22 in case action by the State is essential and urgent, Paragraph 18 above shall apply.

21 Doc 3

21. In connection with a design review, inspectors shall have access to the extent necessary to verify that the facility will permit the effective application of safeguards; otherwise inspectors should normally require access only to the inspection

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locations selected in the design review. Access to additional locations may be required to perform inspections for the purposes described in Paragraph 18(c), (d) and (f) of this Part of the document, or for other purposes agreed between the Agency and the State. Should the State consider that access to an additional locations is unnecessary for the purpose of the Agreement, the Agency should be required, upon request of the State, to review the matter forthwith.

23 OR 30

U.K.: "...In regard to Paragraph 21, the inspectors should have constant access to 'strategic points'..."

26 OR 30

F.R.G. (proposal for Paragraph 21).

"For the purposes described in Paragraph 18(a) inspectors would have access to the extent necessary to verify that the facility will permit the effective application of safeguards. For the purposes described in Paragraph 18(b), (c), (d) and (e) inspectors shall have access only to the inspection locations selected in the design review."

"Also in Paragraph 21 the phrase 'Paragraph 18(c), (d) and (f)' should be replaced by 'Paragraph 18(f)', and the words '...and to justify the need for such access' should be added at the end."

29 OR 30

South Africa: "...it was very important for the problem of access to nuclear facilities to be settled in advance by the Agency and the State, if need be during the negotiation of the 'Subsidiary Arrangements'."

32 OR 30

U.S.: "...[T]he expression 'at strategic points' [proposed by the F.R.G.]...tended to limit the scope of Paragraph 21, which laid down the principal that in any event would still remain, even if the Committee amended the text."

39 OR 30

Romania: "...It would be advisable to state clearly in Paragraph 21 that access to additional locations could be obtained with the consent of the State concerned."

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9 OR 31

Canada: "...[T]he reference in Paragraph 21 to the possibility of inspection at additional locations was very valuable, although the inspector would clearly be required to demonstrate the need for such inspections."

24 OR 31

U.S.: "With regard to Paragraph 21, it would be illogical to state in the agreement that access would be limited to strategic or key measurement points on the basis of the design review and then go on to state that access to additional locations might be required in order to perform inspections for the purposes indicated in Paragraph 18. Under Paragraph 18 (c) and (d) the principal of limited access under normal circumstances would be abandoned. The difficulty, however, could not be solved merely by deleting the reference to Paragraph 18(c) and (d) since that would restrict the Agency's broader access to the verification of reports on abnormal losses. An abnormal loss might, however, never appear in a report... [A] paragraph worded along the lines of Paragraphs 52 and 53 in the Safeguards Document should be inserted after Paragraph 21. That would ensure that the Agency had the right to make special inspections (special in terms both of frequency and location) whenever there was an indication, from any source, of abnormal losses or unusual circumstances."

46 Doc 129 IAEA Proposal

Access for Inspections

46. The Agreement should provide that:

- (a) For the purpose specified in sub-paragraph 42(a) above and until such time as the strategic points have been specified in the Subsidiary Arrangements the Agency's inspectors shall have access to any location where the initial report indicates that nuclear material subject to safeguards under the Agreement is present;
- (b) For the purposes specified in Paragraph 41 above the inspectors shall normally have access only to the strategic points specified in the Subsidiary Arrangements and to the records maintained pursuant to Paragraphs 21-28 above. If the Agency determines that the access to the strategic points is not adequate for it to fulfil its safeguards responsibilities under the Agreement, it shall request further access and justify the request by explaining its requirements;

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- (c) For the purposes specified in sub-paragraph 42(b) and (d) above the inspector shall have access to any location in the facility concerned as necessary to investigate abnormal changes in the quantity or composition of nuclear material subject to safeguards under the Agreement, provided the Agency advises the State forthwith of the reasons why such access is required;
- (d) For the purposes specified in sub-paragraph 42(c) above the inspector shall have access to any location of which the Agency has been notified in accordance with sub-paragraph 2(c) or 5(c) below; and
- (e) The State and the Agency may agree on other purposes for which access to further locations shall be granted.

Doc 134 U.S. Proposal

46. The Agreement should provide that:

- (a) For the purposes specified in sub-paragraphs 40.A(a) and (b) above and until such time as the strategic points have been specified in the Subsidiary Arrangements the Agency's inspectors shall have access to any location where the initial report or the Agency's inspections indicate that nuclear material is present;
- (b) For the purposes specified in sub-paragraph 40.A(c) above the inspector shall have access to any location of which the Agency has been notified in accordance with sub-paragraph 2(c) or 5(c) below; and
- (c) For the purposes specified in Paragraph 41 the Agency's inspectors shall have access only to the strategic points specified in the Subsidiary Arrangements and to the records maintained pursuant to Paragraphs 21-28 above.

1 OR 61

U.S.: "[The U.S. proposals] resulted essentially from the Committee's formulation of the provisions dealing with access for the purpose of ad hoc and routine inspections [45-46 Doc 92/Rev.1]. The intention...[was] to make [Paragraph 46] deal exclusively with such inspections. Special inspections would be dealt with separately."

2 OR 61

"...[U]nder the U.S. proposals the Agency's inspections as well as the initial report would serve as a basis for access to locations at which nuclear material might be present. The reason for

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the reference to the Agency's inspections was that transfers might have been made during the period between the filing of initial reports and the conclusion of subsidiary arrangements."

4 OR 61

"...[For normal or routine inspections covered by Paragraph 46(c)] access should be limited to the strategic points specified in the Subsidiary Arrangements... [A] special investigation was called for in situations where access had to extend beyond those strategic points."

5 OR 61

"...[A] review of strategic points...was adequately covered by the provision for re-examination of design information. It would not lead to special inspections, but simply to the selection of a different set of strategic points."

Doc 135 South Africa Proposal to Doc 134

Add the following sub-paragraph 46(d):

- (d) In the event the State concludes that any limitations on access by the Agency are essential for health and safety reasons or to protect highly sensitive information, it shall advise the Agency and explain the need for these limitations. The State and the Agency shall then promptly consult with the view of providing the State on the one hand with the requisite protections and the Agency on the other with the necessary information to permit it to discharge its responsibilities under the Agreement. Any such arrangement would be subject to the approval of the Board of Governors.

9 OR 61

U.S.: "...[T]he only possible interpretation of the South African amendment was that, pending the conclusion of an arrangement between the Inspector General and the State concerned, the situation should remain in suspense and the limitations requested by the State should be honored. Obviously, access during the interim period would defeat the purpose of the arrangement..."

16 OR 61

U.K. (Re Doc 135): "...[L]imitations might be either permanent or temporary, as in the case of an accident. Where temporary limitations were concerned it would be inappropriate to seek Board approval for an arrangement to ensure that inspectors were not put at risk."

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17 OR 61

U.S.: "Further it had been the aim so far to keep Subsidiary Arrangements confidential, and also, presumably, any changes that might be made in Subsidiary Arrangements. The last sentence of the proposal under review [Doc 135], however, would require every change in the Subsidiary Arrangement to be reported to the Board..."

20 OR 61

U.S.: "...The amendment [Doc 135] would make it clear that a State which believed special arrangements to be essential for reasons of health and safety or in order to protect sensitive information would be under an obligation to consult with the Agency with a view to providing the Agency adequate information under the Agreement."

21 OR 61

"The South African amendment was intended...to cover special circumstances not yet encompassed by provisions relating to health and safety procedures or the introduction of special material balance areas to protect sensitive information. The access referred to in the proposal was the access required by the agreement. Limitations on such access would therefore constitute an unusual circumstance, of which it would be quite proper to inform the Board... [I]t would not be necessary in every instance to go to the lengths of seeking Board approval of the arrangements made."

26 OR 61

IAEA (Legal Division): "...[T]here appeared to be a link missing in the second sentence of the South African text, in that the end purpose of the consultation to be undertaken was not specified... [T]he provision in the third sentence, which in effect laid down that any arrangement made would automatically be brought before the Board, differed slightly from the provision in Paragraph 19 of the material for Part I of agreements, under which the State was accorded the right to request that any question arising out of the interpretation or application of the agreement be considered by the Board."

27 OR 61

Hungary: "...Since, apparently, the text was meant to cover limitations on access required by unusual circumstances (the matter of general limitations being dealt with under earlier provisions), the following wording to the beginning would make

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the position plain: 'In the event the State concludes that any unusual circumstances require limitations on access by the Agency for health and safety reasons...' The problem of the link missing in the second sentence would be solved in the explanation offered by the United States Representative, viz. that the limitations imposed would stand unless the Board should decide otherwise, were accepted. And since the decision would then be with the Board rather than the Agency, the second sentence should explicitly state that the Board would be invoked.

29 OR 61

U.K.: "...[P]roposed that the word 'extended' be inserted before 'limitations' in the first line. Secondly, the second sentence would bring out the purpose better if it were amended to read: '...with a view to making arrangements to provide...'"

34 OR 61

India: "...[T]he eventuality at issue; i.e., unusual circumstances which might require further limitations on access for a specific reason, could easily be covered by the following simple wording: 'In the event the State concludes that any unusual circumstances demand limitations on access by the Agency, the State and the Agency shall promptly consult with a view to enabling the Agency to discharge its safeguards responsibilities under the conditions arising from such limitation.' The last sentence of the South African provision was unnecessary because any difference of opinion between the State and the Agency could easily be dealt with under already approved provisions."

35 OR 61

F.R.G.: "...In the event of either side being dissatisfied with the arrangements arrived at after consultation, it would be open to either or both to bring the matter to the Board's attention -- the Agency in accordance with its regular procedures and the State under the provisions of Paragraph 19 of the material for Part I of agreements. The following might be a more appropriate wording than that put forward by India: 'The State and the Agency shall make arrangements with a view to defining the necessary limitations and to enabling the Agency to discharge its responsibilities in the circumstances arising from such limitations'."

41 OR 61

U.S.S.R.: "The text proposed by India...should...be supplemented by adding the last sentence of the South African provision; for the Indian text as presented might open the way to lack of uniformity in the safeguards applied and accordingly it was essential

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that the Board should be kept informed of every case where a limitation of access was proposed owing to unusual circumstances, in order to preclude such a possibility."

42 OR 61

Spain: "...It might be advisable to replace the word 'Agency' by 'Director General' since the Board was in fact an integral part of the Agency and any decision as to whether arrangements were satisfactory or not would devolve on the Director General, subject to the Board's approval..."

49 OR 61

U.K.: "...it might be clearer...if the end of the sub-paragraph read: 'Where the initial report or any inspections carried out in connection with it indicate that nuclear material is present'..."

50 OR 61

IAEA: Doc 134 with sub-paragraph (c) thus amended was accepted.

51 OR 61

IAEA: Re sub-paragraph (d) suggested the following:

"In the event of the State concluding that any unusual circumstances demand limitations on access by the Agency, the State and the Agency shall promptly make arrangements with a view to enabling the Agency to discharge its safeguards responsibilities in the light of the necessary limitations. The Director General shall report each such arrangement to the Board of Governors."

52 OR 61

U.K.: "Suggested that the word 'demand' should be replaced by 'require' and that the word 'extended' should be inserted before 'limitations' the first time the latter was used."

53 OR 61

U.S.S.R.: "...although the limitations in question might appear necessary to the State, they may not so appear to the Agency; in those circumstances, it would be wrong to qualify them as 'necessary' in an agreement to which both the State and the Agency were party... [T]he words 'the necessary' before the word 'limitations' at the end of the first sentence should be replaced by 'these'..."

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58 OR 61

U.S.: "...The sub-paragraph [(d)] dealt with unusual circumstances which would give rise to unusual results, and, in the interests of maintaining confidence in the safeguards system, it was essential that all unusual circumstances should be reported to the Board. The Director General must accordingly be given clear-cut instructions to report all cases of the type referred to in the sub-paragraph to the Board.

67 OR 61

IAEA: "...Paragraph 46(d), as amended by the U.K. and U.S.S.R. ...was acceptable to the Committee."

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INFCIRC/153 Paragraphs 78-82

FREQUENCY AND INTENSITY OF ROUTINE INSPECTIONS

78. The Agreement should provide that the number, intensity, duration, and timing of routine inspections shall be kept to the minimum consistent with the effective implementation of the safeguards procedures set forth therein, and that the Agency shall make the optimum and most economical use of available inspection resources.

79. The agreement should provide that in the case of facilities and material balance areas outside facilities with a content or annual throughput, whichever is greater, of nuclear material not exceeding five effective kilograms, routine inspections shall not exceed one per year. For other facilities the number, intensity, duration, timing and mode of inspections shall be determined on the basis that in the maximum or limiting case the inspection regime shall be no more intensive than is necessary and sufficient to maintain continuity of knowledge of the flow and inventory of nuclear material.

80. The Agreement should provide that the maximum routine inspection effort in respect of facilities with a content or annual throughput of nuclear material exceeding five effective kilograms shall be determined as follows:

- (a) For reactors and sealed stores, the maximum total of routine inspections per year shall be determined by allowing one sixth of a man-year of inspection for each such facility in the State;
- (b) For other facilities involving plutonium or uranium enriched to more than 5%, the maximum total of routine inspections per year shall be determined by allowing for each such facility $30 \times E$ man-days for inspection per year, where E is the inventory or annual throughput of nuclear material, whichever is greater, expressed in effective kilograms. The maximum established for any such facility shall not, however, be less than 1.5 man-years of inspection; and
- (c) For all other facilities, the maximum total of routine inspections per year shall be determined by allowing for each such facility one third of a man-year of inspection plus $0.4 \times E$ man-days of inspection per year, where E is the inventory or annual throughput of nuclear material, whichever is greater, expressed in effective kilograms.

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The Agreement should further provide that the Agency and the State may agree to amend the maximum figures specified in this paragraph upon determination by the Board that such amendment is reasonable.

81. Subject to paragraphs 78-80 above the criteria to be used for determining the actual number, intensity, duration, timing and mode of routine inspections of any facility shall include:

- (a) The form of nuclear material, in particular, whether the material is in bulk form or contained in a number of separate items; its chemical composition and, in the case of uranium, whether it is of low or high enrichment; and its accessibility;
- (b) The effectiveness of the State's accounting and control system, including the extent to which the operators of facilities are functionally independent of the State's accounting and control system; the extent to which the measures specified in paragraph 32 above have been implemented by the State; the promptness of reports submitted to the Agency; their consistency with the Agency's independent verification; and the amount and accuracy of the material unaccounted for, as verified by the Agency;
- (c) Characteristics of the State's nuclear fuel cycle, in particular, the number and types of facilities containing nuclear material subject to safeguards, the characteristics of such facilities relevant to safeguards, notably the degree of containment; the extent to which the design of such facilities facilitates verification of the flow and inventory of nuclear material; and the extent to which information from different material balance areas can be correlated;
- (d) International interdependence, in particular, the extent to which nuclear material is received from or sent to other States for use or processing; any verification activity by the Agency in connection therewith; and the extent to which the State's nuclear activities are interrelated with those of other States; and
- (e) Technical developments in the field of safeguards, including the use of statistical techniques and random sampling in evaluating the flow of nuclear material.

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82. The Agreement should provide for consultation between the Agency and the State if the latter considers that the inspection effort is being deployed with undue concentration on particular facilities.

19-20 Doc 3

19. The Agency, in determining the number, intensity and duration of inspections, would take account of the promptness, accuracy and consistency of reports.

20. At the present state of technology, adequate verification of the flow of nuclear material in some processes can only be achieved by means of continuous inspection; in other circumstances intermittent inspections with or without notice may suffice. The choice of the appropriate inspection method will depend on the type and amount of material and the nature of the process.

23 OR 30

U.K.: "...Regarding Paragraph 19,...it would be necessary to lay down the frequency of inspections,...it would also be necessary to take into account the type of materials, since although some of them did not lend themselves to diversion for military purposes, others, such as plutonium, fully justified a special inspection procedure..."

27 OR 30

F.R.G.: "[C]ontinuous inspection should correspond to the frequency of inspections necessary to have a constant supply of information on the nuclear facility; other than in the extreme case the Agency should adopt the maximum flexibility with regard to inspections, taking account of the characteristics of each individual case."

39 OR 30

Romania: "...To be thoroughly consistent, one should also mention paragraph 47 [of the Safeguards Documents INFCIRC 66/Rev.2], which stated that 'The number, duration and intensity of inspections actually carried out shall be kept to the minimum consistent with the effective implementation of safeguards'..."

53 OR 30

Japan: "The frequency of inspections could be agreed in advance on the basis of statistical data and taking account of the nuclear material flow and the technical efficiency of the national

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control system. If the Agency found any discrepancies in the inventory, it could carry out more thorough inspections and inspectors would have access to selected locations. If the first inspection did not satisfy the Agency, it could increase the number of control points and make a second inspection. If in that case, too, the inspection did not meet the Agency's requirements, it could then exercise its right of access at any time and place."

2 OR 31

U.S.: "...[S]afeguards agreements should include an indication of the normal maximum frequency of inspections, and it was not important that any reference to the frequency of inspections should be qualified by the word 'normal'. Abnormal circumstances might require a higher intensity of inspections, but [it was not agreeable] that the rate of inspections should be agreed to between the Agency and a State on a facility-by-facility basis."

3 OR 31

"...[P]aragraph 20 in some cases overstated and, in others, understated the need for continuous inspections. What was needed was not a prediction of which form of inspection was or was not normal - that after all would depend on a State's particular circumstances - but a simple statement of where intermittent inspection was required. Continuous inspections were, for example, necessary in plants in which nuclear material was processed at a high rate, for example in reprocessing plants,... [S]uch inspections need not be burdensome, since the presence of an inspector would neither affect the operation of a facility nor infringe on industrial property rights."

5 OR 31

U.K.: "...[A] table of minimum inspection frequencies similar to that in Paragraph 57 of the Safeguards Document should be incorporated in the agreement, but did not consider that the inspector need not be accompanied by the representative of the State on special inspections, since it was then, above all, that the preservation of good relations require the attendance of a representative of the State."

6 OR 31

Japan: "...great technological progress had been made since that table [in the Safeguards Document] had been compiled and that it might therefore not be applicable to current designs of reactors..."

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7 OR 31

Switzerland: "...there might be a contradiction between the provision in the Safeguards Document regarding cases when at least one week's notice of an inspection was required and the phase in Paragraph 20 which read 'intermittent inspections with or without notice may suffice'..."

11 OR 31

Hungary (Re continuous inspections): "...The inspector would not be continuously present but information would be continually available to the Agency..."

16 OR 31

IAEA: "...In practice the maximum number of inspections was never carried out, but the maximum practical number which achieved the required results, taking into account the effectiveness of the national control system."

23 OR 31

U.S.: "...on the concept of continuous inspection and its relationship to that of access at all times,...it was recognized in the Annexes to the Safeguards Document that continuous inspection constituted the limiting form of access at all times... It might be necessary to apply access at all times in the form of continuous inspection in cases where there was a continuous, high flow of nuclear material in relation to the inventory at the facility."

40-43 Doc 62/Rev.1

B. Maximum number of routine inspections annually

40. It should be provided that the maximum frequency of routine inspections for nuclear material contained in any facility shall be determined by reference to the inventory or the annual throughput, whichever is the greater when expressed in effective kilograms and the shortest critical time of the nuclear material in the facility according to the table on the following page.

41. The Agreement should provide that routine inspections shall not include inspection solely for the purpose of sub-paragraphs 38(a), and (b) and (h) above and special inspections referred to in Paragraph 46 below.

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Inventory or annual throughput (effective kilograms)	Critical time of material	
	Up to 1 month	More than 1 month
Up to 1	1	1
More than 1 and up to 5	2	1
" " 5 " " " 20	6	3
" " 20 " " " 40	A*	6
" " 40 " " " 60	A	10
" " 60	A	A

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42. The Agreement should provide that when a facility falls into different categories at different times the one with the highest maximum inspection frequency shall apply. The Agreement should permit the Agency, when it has the right of access at all times, to perform inspections of which notice as required by Paragraph 53 below need not be given, and it should provide that the actual procedures to implement this provision shall be set out in the Subsidiary Arrangements. It should further be provided that when the annual throughput or the inventory exceeds 60 effective kilograms, the right of access at all times may be implemented by means of continuous inspection.

43. The Agreement should state that in determining the actual number, intensity, duration and timing of inspections the Agency shall take account of the promptness, accuracy and consistency of reports.

42.1-42.4 Doc 62/Rev.1

IAEA: The critical time represents the minimum time required to divert material from its legitimate use to fabrication of nuclear explosive devices and depends on the physical form, isotopic and chemical composition and the location and use of the material. The following examples illustrate the critical times that would be used in determining maximum inspection frequencies according to the table:

Critical time up to one month:

- (a) Plutonium and highly enriched uranium in any form, free from fission products (metal, alloy, any compound); and
- (b) Plutonium and highly enriched uranium in solution, or in other form, in such location that it would be readily separable from fission products. Examples of facilities where this would apply:
 - (i) Fuel in reprocessing plants;
 - (ii) Fast critical facilities;
 - (iii) Plutonium and highly enriched uranium storages;
 - (iv) Unirradiated fuel storages at highly enriched fuel research reactors; and
 - (v) Conversion and fabrication plants for plutonium and highly enriched uranium fuel.

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Critical time more than one month:

- (a) Plutonium or uranium in irradiated fuel at a reactor plant; and
- (b) Unirradiated low enriched, natural or depleted uranium in any form. Examples of facilities where this would apply:
 - (i) Reactors; and
 - (ii) Conversion and fabrication plants for natural or low enriched uranium fuel.

At the present state of technology, adequate verification of the flow of nuclear material in some processes can only be achieved by means of continuous inspection; in other circumstances intermittent inspections may suffice. The term, continuous inspection, identifies a maximum or limiting case of an inspection regime, termed continual inspection, which is intended to maintain continuity of knowledge concerning flow and inventory of nuclear material. This might or might not require the continuous presence of inspectors at the plant or continuous observation by instrumental methods. Intermittent inspections, on the other hand, are intended only to define the status of a plant, and nuclear material in it, at the time of observation. The choice of the appropriate inspection regime will depend on the type and amount of material and then nature of the process.

2 OR 50

U.S.: "...[U]nder Article XII.A.6 of the Statute, the Agency had the right to designate inspectors 'who shall have access at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment or facilities which are required by this Statute to be safeguarded'."

3 OR 50

"That possibility of access at all times had been deemed by some to grant excessively discretionary powers and by others to be insufficiently precise, and for that reason it had been suggested that at least the maximum frequency of regular inspections should be specified."

4 OR 50

"Even the first safeguards document dating from 1961, contained a table of the frequency of such regular inspections..."

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6 OR 50

"...[C]ontinuous inspection...was a necessary procedure in certain cases in order to permit - and that was the important point - an independent verification of the inventory and movement of nuclear material..."

10 OR 50

U.S.: "...[T]he figures in [the table in 40 Doc 62/Rev.1] were the maximum ones and experience had shown that the actual number of annual inspections carried out by the Agency came to about 40% of those figures..."

13 OR 50

U.K.: "The presence of inspectors in a facility did not...endanger the industrial secrets of the operator, particularly if the principle of small, distinct material balance areas was accepted. Even on the unlikely assumption of an inspector being dishonest and transmitting secrets to a competitor, a nuclear facility could not be built overnight and, thanks especially to the technical press, it was in any case not long before advances in atomic technology became a matter of common knowledge."

15 OR 50

U.S.: "As regards the three paragraphs under discussion,...they had been drafted in the same spirit as the analogous provisions in document INFCIRC/66; i.e., they were based on the concept of the "facility". However, a different approach had since been adopted: it was aimed at verifying whether the national safeguards system provided full and accurate information."

16 OR 50

"...[T]he table in Paragraph 40 should refer to groups of facilities or categories of facilities, rather than to facilities, in a given country. Classifying facilities according to their size, i.e., according to the number of effective kilograms, seemed to be a highly artificial procedure."

17 OR 50

"The advantage of the table was perhaps that it established general standards applicable to all countries. However, it should be more dynamic in concept. The number of inspections should not be settled every year on a routine, almost automatic, basis depending solely on the number of effective kilograms. With a system established at the national level, movements of material

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inside the country could often be foreseen and the Agency could thus modify its plan for inspection appropriately if it consulted with the national control system.

20 OR 50

U.K.: "...[A] reference to the national system should be made at the beginning of the group of paragraphs under discussion. It would be preferable for Paragraph 43 to be placed before the other two. As far as the table was concerned,...there should be a paragraph giving general rules which could be applied in fixing the number of inspections; but the number of categories should be reduced. Preferably the rules should relate to quantities of nuclear material by groups of facilities. Lastly, the duration of the inspections should be indicated."

24 OR 50

F.R.G.: "...[T]he approach based on maximum frequency of routine inspections would [not] always give satisfactory results; account would have to be taken not only of the frequency but also of the number, intensity, and duration of inspections."

26 OR 50

F.R.G.: "As to continuous inspections, frequency became a matter of less importance as long as it was sure that inspections were carried out at certain strategic points. Continuous inspection might be a burden for the operator."

27 OR 50

"...[N]ational [safeguards] systems should be taken into consideration just as the intensity, duration, and number of inspections. Paragraph 43...should be made more comprehensive.

30 OR 50

Belgium: "...The safeguards that the Agency would have to apply in connection with NPT were of an entirely different nature because it would no longer be a matter of verifying facilities directly but rather of checking on the functioning of a national safeguards system... [T]he question was simply whether or not a country was complying with its international obligations."

31 OR 50

"Where there was no evidence to warrant an attitude of suspicion towards a State which had a proven national system,...the frequency of the Agency's inspections should, in the case of a principle nuclear facility, be reduced to minimum, for example, one or two per annum..."

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34 OR 50

Japan: "...direct verification was an important aspect but not the only one. Inspections were necessary and...operators should not exaggerate the importance of what were considered to be industrial secrets... The number of inspections should...be reduced to a minimum."

35 OR 50

"With respect to continuous inspection,...it was a matter of evaluating information from a facility and checking whether that information differed from one inspection to the next..."

40 OR 50

U.S.S.R.: "...without wishing to deny the importance of any other control method applied by the Agency,...inspection was the most important method available to it."

41 OR 50

"With respect to frequency, agreements should indicate precisely, and on a single basis, the frequency with which inspections should be carried out. Inspections should not be the subject of negotiation for each particular case."

44 OR 50

U.S.S.R.: "...[Continuous] inspection was necessary in certain cases in order that the right of access at any time could be exercised. It was up to the Agency, however, to lay down its own statistical methods."

47 OR 50

Canada: "...the facilities of a State should be considered as a whole and...the Agency should be allowed access at any time to any place. In a country having a limited programme of nuclear activities the frequency shown in the table in Paragraph 40 might be sufficient, but if the aim was to achieve real effectiveness at reasonable cost, trust must be placed in the Inspector General and the Agency's inspectorate and it must be remembered that the Board of Governors had all the necessary authority to ensure that inspections were carried out to the satisfaction of the parties concerned."

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52 OR 50

Poland: "It should be borne in mind, however, that the main difference between accounting systems and the safeguards system was that the latter was required to permit the detection in good time of any diversion of nuclear material... Therefore, the novel feature of the system proposed by the Secretariat was the introduction of the concept of critical time, which provided a means of determining the minimum time required to divert nuclear material from its authorized use for the production of nuclear explosive devices; the figures given in the table in Paragraph 40 had been drawn up in terms of the critical time of the material in a facility..."

Doc 139

Frequency And Intensity Of Routine Inspections

1. The Agreement should provide that the number, intensity, duration, and timing of routine inspections shall be kept to the minimum consistent with the effective implementation of the safeguards procedures set forth therein, and that the Agency shall make the optimum and most economical use of available inspection resources.
2. The Agreement should provide that in the case of facilities with a content or annual throughput, whichever is greater, of nuclear material not exceeding five effective kilograms, routine inspections shall not exceed one per year. For other facilities the number, intensity, duration, and timing of inspections shall be determined on the basis that in the maximum or limiting case the inspection regime shall be no more intensive than is necessary and sufficient to maintain continuity of knowledge of the flow and inventory of nuclear material.
3. The Agreement should provide that the maximum routine inspection effort in respect of facilities with a content or annual throughput exceeding five effective kilograms shall be determined as follows:
 - (a) For reactors and sealed stores, the maximum total of routine inspection per year shall be determined by allowing one sixth of a man-year (a man-year of inspection means 300 man-days of inspection) of inspection for each such facility in the State;
 - (b) For other facilities involving plutonium or uranium enriched to more than 5%, the maximum total of routine inspection per year shall be determined by allowing for each such facility 30 X E man-days of inspection

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per year, where E is the inventory or annual throughput, whichever is greater, expressed in effective kilograms. The maximum established for any such facility shall not, however, be less than 1.5 man-years of inspection; and

- (c) For all other facilities, the maximum total of routine inspections per year shall be determined by allowing for each such facility one third of a man-year of inspection plus $0.4 \times E$ man-days of inspection per year, where E is the inventory or annual throughput, whichever is greater, expressed in effective kilograms.

The Agreement should further provide that the Agency and the Senate may agree to amend the maximum figures specified in this paragraph upon determination by the Board of Governors that such amendment is reasonable in the light of developments in safeguards technology.

4. Subject to Paragraphs 1, 2, and 3 above the criteria to be used for determining the actual number, intensity, duration, timing, and mode of routine inspections of any facility shall include:

- (a) The form of nuclear material, in particular, whether the material is in discrete or bulk form; its chemical composition and, in the case of uranium, whether it is of low or high enrichment; and its accessibility;
- (b) The effectiveness of the State's accounting and control system, including the extent to which the operators of nuclear facilities are functionally independent of the State's accounting and control system; the extent to which the measures specified in Paragraph 6 above have been implemented by the State; the promptness of reports submitted to the Agency; their consistency with the Agency's independent verification; and the amount and accuracy of the material unaccounted for verified by the Agency;
- (c) Characteristics of the State's fuel cycle, in particular, the number and types of nuclear facilities containing nuclear material subject to safeguards; the characteristics of such facilities relevant to safeguards, notably the degree of containment; the extent to which the design of such facilities verification of the flow and inventory of nuclear material; and the extent to which information from different material balance areas can be correlated;

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- (d) International interdependence, in particular, the extent to which nuclear material is received from or sent to other States for use or processing; any inspection activity connected therewith; and the extent to which the State's nuclear activities are interrelated with those of other States; and
- (e) Technical developments in the field of safeguards, including the use of statistical techniques and random sampling in evaluating the flow of nuclear material.

5. The Agreement should provide for consultation between the Agency and the State if the latter considers that the inspection effort in the State is being deployed with undue concentration on particular facilities.

4 OR 63

U.K.: "...The approach that had been adopted was based on the view that it was essential to lay down a maximum limit for inspections in the interests of both the State and the Inspector General. The prescribed maximum limit would, however, be offset by a number of criteria, so that the particular circumstances of a given State could be taken into account."

6 OR 63

U.K.: (Re 3 Doc 139) "...It was not, of course, certain that 50 days would suffice in the case of all existing and future types of reactors, but it had been thought simpler to group all reactors together and to allow for flexibility in deploying the inspection effort amongst them than to attempt to list every type of reactor and to assess the amount of inspection required in connection with each. Sealed sources had been grouped with reactors because, although they were not very sensitive economically speaking, it was difficult to predict their size."

7 OR 63

(Re the second category of facilities in Paragraph 3) "...[T]he best approach would be to decide what maximum inspection was necessary and then, on that basis, assess what inspection was required. Once the number of days needed had been decided, the best way of expressing the maximum limit had been considered. It was being suggested that the maximum limit should be expressed as a square root of the inventory or annual throughput, whichever was greater, multiplied by 30... Such a formula would give a degree of inspection effort that was tolerable for operators. Moreover the Inspector General would be encouraged to make use of the most highly developed instrumentation to save staff."

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9 OR 63

U.K.: "...[T]he main criteria to be used in determining the actual number, intensity, duration, timing and mode of routine inspections of any facility [listed in Paragraph 4]...were intended to give both the Inspector General and the State some guidance as to how inspection could be kept to a minimum, which was what all were aiming at."

12 OR 63

Switzerland: "...[O]ne of the objectives of the drafters [of Doc 139] had been to obtain the best possible balance between inspection effort and effectiveness. In that connection, it had been recognized that no safeguards system would be 100% reliable, and the objective in terms of inspection effort had been the 95% reliability calculated originally by the panel of experts. Doubling the inspection effort would not automatically double the reliability of the system..."

15 OR 63

Australia: "Very few of the countries represented would be affected by the provisions during the next five years; possibly Japan, the F.R.G., the U.K., the U.S., and one or two others would. After that period the frequency and intensity of routine inspections would become more important and, if necessary, the relevant provisions could be reconsidered."

17 OR 63

(Re the second category of facilities in Paragraph 3): "...[T]he best approach would be to decide what maximum inspection was necessary and then, on that basis, assess what inspection was required. Once the number of days needed had been decided, the best way of expressing the maximum limit had been considered. It was being suggested that the maximum limit should be expressed as a square root of the inventory or annual throughput, whichever was greater, multiplied by 30... Such a formula would give a degree of inspection effort that was tolerable for operators. Moreover, the Inspector General would be encouraged to make use of the most highly developed instrumentation to save staff."

23 OR 63

IAEA: "The safeguards consultants...had come to the conclusion that in facilities where the inspectors' principal task was verification of inventory, intermittent inspection was likely to be adequate, whereas in facilities where flow verification was required, continuity of knowledge (and sometimes continuous access) might be essential [Ref. GOV/INF 212, Paragraph 17]."

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26 OR 63

IAEA: "...The level of enrichment of the material produced would determine whether the plant were placed in Category (b) or Category (c). In the case of Category (c), the inspection frequency was probably too low to permit continuity of knowledge. The fact might be significant in the case of a plant where it would be possible to change over to a higher enrichment with little effort."

27 OR 63

U.K.: "...[F]rom the safeguards point of view [U.K. studies indicated that] enrichment plants had proved to be one of the simplest types: the same chemical was present throughout the process, precise control of the isotopic constituents was constantly maintained and there should be no leakage... [T]he maximum figures laid down for Categories (b) and (c) should be adequate."

29 OR 63

Hungary: "As to Paragraph 4...sub-paragraph (b), the term 'functionally independent' should...be interpreted as meaning that the various facilities were functionally independent of one another and that the accounting and control system was independent of the facilities, and vice versa..."

34 OR 63

U.S.S.R.: "...[A]s it stood [in Doc 139], Paragraph 2 failed to cover inspection of nuclear material contained in material balance areas outside facilities... [T]o stop the gap...the phrase 'and in case of nuclear material outside facilities' should be added after the words 'five effective kilograms'."

40 OR 63

F.R.G.: "...[N]o addition [to Paragraph 5] should be made, on the understanding that, under Paragraph 3, the Agency was empowered to redistribute its inspection effort without prior approval of the State concerned."

54 OR 63

IAEA: "...there seemed to be general agreement of the following amendments to the proposed provisions [in Doc 139]: the words 'and material balance areas outside facilities' to be inserted after the word 'facilities' in Paragraph 2; the beginning of the second sentence in Paragraph 2 to read: "Intensity, duration, timing, and mode of inspections..."; Paragraph 3 to end at the

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word 'reasonable'; the second phrase in sub-paragraph 4(d) to read: 'any verification activity by the Agency in connection therewith'; in sub-paragraph 4(e), the word 'technique' to take the plural form; and the words 'in the State' to be omitted from Paragraph 5."

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INFCIRC/153 Paragraphs 83-84

NOTICE OF INSPECTIONS

83. The Agreement should provide that the Agency shall give advance notice to the State before arrival of inspectors at facilities or material balance areas outside facilities, as follows:

- (a) For ad hoc inspections pursuant to sub-paragraph 71(c) above, at least 24 hours, for those pursuant to sub-paragraph 71(a) and (b), as well as the activities provided for in Paragraph 48, at least one week;
- (b) For special inspections pursuant to Paragraph 73 above, as promptly as possible after the Agency and the State have consulted as provided for in Paragraph 77, it being understood that notification of arrival normally will constitute part of the consultations; and
- (c) For routine inspections pursuant to Paragraph 72 above, at least 24 hours in respect to the facilities referred to in sub-paragraph 80(b) and sealed stores containing plutonium or uranium enriched to more than 5%, and one week in all other cases.

Such notice of inspections shall include the names of the inspectors and shall indicate the facilities and the material balance areas outside facilities to be visited and the periods during which they will be visited. If the inspectors are to arrive from outside the State the Agency shall also give advance notice of the place and time of their arrival in the State.

84. However, the Agreement should also provide that, as a supplementary measure, the Agency may carry out without advance notification a portion of the routine inspections pursuant to Paragraph 80 above in accordance with the principle of random sampling. In performing any unannounced inspection, the Agency shall fully take into account any operational programme provided by the State pursuant to paragraph 64(b). Moreover, whenever practicable, and on the basis of the operational programme, it shall advise the State periodically of its general programme of announced and unannounced inspection, specifying the general periods when inspections are foreseen. In carrying out any unannounced inspections, the Agency shall make every effort to minimize any practical difficulties for facility operators and the State, bearing in mind the relevant provisions of Paragraphs 44 above and 89 below. Similarly the State shall make every effort to facilitate the task of the inspectors.

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53 Doc 62/Rev.1

53. The Agreement should provide that whenever the Agency does not have the right of access at all times, the State shall be given at least one week's advance notice of the inspection. It should further provide that the notice shall include the names of the Agency inspectors, the place and approximate time of their arrival and departure, if relevant, and the material balance areas to be inspected and that such notice need not exceed 24 hours for any inspection to investigate any incident requiring a special inspection or for an inspection of nuclear material of which the Agency has been notified that it is to be transferred out of the State. It should be provided also that at the request of the Agency, the State and the Agency shall consult about arrangements for the stationing in the State of one or more Agency inspectors and that the Agency shall be permitted to station such inspectors whenever it has the right of access at all times.

Doc 62/Rev.1

IAEA: "...As a rule, inspection visits will cover more than one material balance area, and in some cases (depending on the maximum number of routine inspections permitted annually) they may include both facilities in respect of which advance notice must be given, and others where this is not required. There may be several cases where reasons of operational effectiveness or economic considerations - or combinations of the two - may make it desirable to station one or more inspectors in a State, i.e.:

- (a) If there are in a State one or more facilities to which access at all times is permitted, and where a high inspection frequency is desirable;
- (b) If there are in a State one or more plants where continuous inspections could be applied;
- (c) If there are in a State a number of facilities not calling for very frequent or continuous inspection but of which the combined inspection frequency is such that it may be more economical if the Agency could have one or more inspectors on the spot to inspect them; or
- (d) If there is in a particular region a combination of the circumstances described here, which would make it desirable to have a field office to deal with the area. Naturally, if any inspectors would be stationed away from Agency Headquarters, specific arrangements with the State concerned would be called for, including the conditions of the outposting, the status of the inspector(s) and of the office and a number of administrative details.

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27 OR 64

F.R.G.: "...[P]aragraph 53 should reflect the decision taken at the previous meeting [on frequency of inspections]..."

31 OR 64

U.K.: "Paragraph 53 should be reformulated. Certain reservations should be introduced, for example, regarding the frequency of inspections, so that it would be possible to delete the right of 'access at all times'."

32 OR 64

U.K.: "On the question of advance notice...random inspections, carried out without the operator being prepared for them, were an important means for the detection of diversion and should be available to the Agency. The more the Agency was enabled to carry out such unexpected inspections, the less the actual number of inspections might be, with a consequent reduction of the burden on the Agency and the State. However, advance notice within a minimum period was desirable not only for the operator but also for the inspector."

33 OR 64

"...[I]n the case of reactors notice should be given within a period of one week; in other cases 24 hours in advance would suffice unless the State agreed to reduce that delay still further."

43 OR 64

U.S.: "The fact that the inspections were unscheduled might reduce their frequency but that was hardly compatible with giving notice long in advance. The United States continued to ascribe very real importance to preserving the Agency's ability to perform inspections, in appropriate cases, on an unannounced basis."

50 OR 64

U.S.S.R.: "...First, there were routine inspections, of which the State should have at least a week's advance notice. Then there were special inspections, for which 24 hours' notice would be sufficient. Lastly, there were those which could be called inspections without advance notice, which corresponded to the concept of 'right of access at all times'."

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51 OR 64

"[Doc 139] which had been considered at the preceding meeting, referred to facilities for which the maximum total of routine inspections per year was 300 man-days of inspection. That could mean, for example, sending three inspectors, each for 100 days per year or keeping only one inspector on the spot for 300 days per year. The latter case meant the right of virtually continuous access."

52 OR 64

"The Agency should be able to carry out inspections without advance notice in the case of certain types of reactors. The United Kingdom...had pointed out that a reactor was easier to inspect than a fuel fabrication or reprocessing plant. That was, on the whole, true but there were exceptions, such as pressurized-water reactors, heavy-water reactors, gas-cooled graphite-moderated reactors and pebble-bed reactors, which could be recharged without interrupting operations."

53 OR 64

"If there were no continuous inspections for reactors of those types, it would be necessary to provide for inspections without advance notice. If the Agency had available a total of 40 or 50 man-days of inspection, it might be decided that an inspection without advance notice would be possible for such reactors."

58 OR 64

India: "...unable to support the argument of the U.S....that advance notice of 24 hours would be too short. It was hard to see how a dishonest operator could tamper with reports in 24 hours."

60 OR 64

U.K.: "...[I]t was difficult to shorten the 24 hour period. One, or even two, hours notice would not be reasonable, and if the State was to appoint an official to accompany the inspector, it had to have the requisite time in which to do so before the inspector arrived."

64 OR 64

Belgium: "...if a State was determined to divert nuclear material, the fact that the advance notice of the inspection given by the Agency was short would certainly not deter it. It was necessary to take a direct and realistic approach and to ensure that good relations existed between the Agency and the States..."

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Doc 143 IAEA Proposal

Notice of inspections

57.A. The Agreement should provide that the Agency shall give notice to the State before the arrival of Agency inspectors in the State, as follows:

- (a) For ad hoc inspections pursuant to Paragraph 45(c), as promptly as possible after the Agency has been notified in accordance with Paragraphs 59 or 62, and, for special inspections pursuant to Paragraph 47, as promptly as possible after the Agency and the State have consulted as provided for in Paragraph 52;
- (b) For routine inspections pursuant to Paragraph 46 in respect of a facility referred to in Paragraphs 55(b) or 55(c), at least 24 hours;
- (c) In all other cases, at least one week.

57.B. The Agreement should provide that notices of inspection shall include the names of the inspectors and the place and scheduled time of their arrival in the State, and shall indicate the facilities and the material balance areas to be visited. If the inspection is designed to cover an operational programme of which the Agency has been informed pursuant to Paragraph 38(b), the notice shall give a general programme of the inspection and shall indicate any periods during which random visits are planned.

2 OR 65

IAEA: "...[T]he governing idea [of the proposal] was to arrange whenever possible for what might be termed an exchange of programmes; the operational program of the State and the Agency's inspection programme..."

6 OR 65

F.R.G.: "expressed concern that Paragraph 57.A, which required the Agency to give notice to a State before the arrival of inspectors in the State, might give rise to difficulties. For example, an inspector might already be present in the State when it became necessary to carry out one of the inspections provided for in sub-paragraph (b), for which advance notice had to be given 24 hours in advance..."

7 OR 65

U.K.: "...the application of Paragraphs 57.A. and 57.B would cause difficulties if five or six Agency inspectors, who were present at the same time in a very large country, had to conform to a time-table established ~~CONFIDENTIAL~~ in advance."

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8 OR 65

IAEA: "...the most unusual case would be that in which a State had communicated an operational programme to the Agency. The Agency would then have prepared an inspection programme and notified the State thereof... [For example, in] the case of fuel reprocessing...[t]he Agency, having received [a] time table, would notify the State that during the reprocessing operations there would be normal routine inspections involving the virtually continuous presence of several inspectors on the premises. During the decontamination, the Agency would only carry out a few spot checks to verify that the reprocessing operations had really been halted."

9 OR 65

"During the physical inventory, the inspectors would be continuously present, and during the shut-down period, since the nuclear materials would remain for that period in the storage areas, there would be random inspections."

10 OR 65

"The advance notification to the State of such an inspection programme would be the best possible arrangement for both parties, and it still preserved the unscheduled character of certain inspections. Moreover, the State would be in possession of all the information it needed for designating the person who would accompany the inspector."

11 OR 65

"...[I]n some cases it would be difficult to give notice before the inspector's arrival in the State. It might perhaps be better to stipulate that notice should be given before the inspection took place instead of before the arrival in the State."

12 OR 65

"In the case of a change of programme on the part of the operator, which would require an inspector already present in the country to visit another facility, no notification would be necessary."

15 OR 65

U.S.: "...[T]he Agency's rights in respect of unannounced inspections had been unduly limited and...some clarification was necessary regarding the position of the inspectors posted to a country."

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16 OR 65

F.R.G.: "...It would...be necessary to amend the text in such a way as to indicate that the Agency should give notice to a State before an inspection and not before the arrival of the inspector in a State."

17 OR 65

Belgium: "...the Agency should have the right to carry out un-scheduled inspections, but care should be taken that the wording adopted did not transform that right into an obligation and routine practice."

20 OR 65

IAEA: "...in all the time that the Agency had been applying safeguards, it had carried out only a few unannounced inspections although it always had the right to do so under the existing safeguards system."

Doc 151 U.S. Proposal

57.A. "The Agreement should provide that the Agency shall give notice to the State of inspections to be carried out in the State, as follows:

- (a) For ad hoc inspections pursuant to Paragraph 45(c), as promptly as possible after the Agency has been notified in accordance with Paragraphs 59 or 62;
- (b) For special inspections pursuant to Paragraph 47, as promptly as possible after the Agency and the State have consulted as provided for in Paragraph 52; and
- (c) For inspections of facilities and materials balance areas outside of facilities with a content or annual throughput of nuclear material not exceeding five effective kilograms per year, whichever is greater, at least one week in advance.

Such notices of inspections shall include the names of the inspectors and the place and scheduled time of their arrival in the State, and shall indicate the facilities and the material balance areas to be visited and the scheduled time of arrival thereat.

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57.B. For facilities and material balance areas outside facilities other than those to which Paragraph 57.A. above applies, the Agreement should provide that if an operational programme as referred to in sub-paragraph 38(b) is available covering a period of at least three months ahead, the Agency shall advise the State of its general programme of inspection for that period, specifying the facilities and material balance areas in respect of which extended inspections are provisionally foreseen, and also those to which random visits may be paid during the period. If the Agency proposes to change its general inspection programme it shall notify the State as soon as possible and before the revised programme comes into effect.

53 OR 66

U.S.: "...[T]he expression 'random visits', in...Paragraph 57.B [meant] unannounced visits."

54 OR 66

"...[T]he phrase 'in respect of which extended inspections are provisionally foreseen' [in Paragraph 57.B]...[implied] that the Agency expected to maintain inspectors at a facility or in a material balance area for an extended period of time."

62 OR 66

Japan: "The function of inspection...was to detect irregularities, if any, in the mode of operation of facilities; there had been no question of employing inspection as a means of catching someone in the act of diverting material. Moreover, random sampling had been adopted in principle as a means of reducing checking operations and at the same time enabling the objective to be achieved... Lack of advance notice would lead to all [kinds] of practical difficulties... Conceivably, the delay [necessitated by for example health and safety reasons or absence of the official authorizing access] might give rise to a suspicion that the time was being employed to cover up signs of diversion. It therefore seemed...that advance notice of, say 24 hours would be in order and would in no way detract from the intended purpose of the random visit..."

64 OR 66

France: "...Under the original text, provision was made for advance notice of 24 hours or one week according to the type of installation. Now the matter was left open... [I]t might...be better to reach agreement in principle on advance notice prior to inspection and then consider whether provision would be required for exception from the general rule."

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67 OR 66

Hungary: "...The surprise element in a random visit might in some case, be useful, and...[should not be] dropped entirely. However, from the practical standpoint of arrangements to facilitate inspection, and also from the point of view of case efficiency, it might be wise - bearing in mind the State's right to have the inspector accompanied in any case by a national official, provided no undue delay was thus occasioned - to provide for some notification in advance."

68 OR 66

U.S.: "...the concept of surprise inspections was not new in the Agency's safeguards system. Under Paragraph 53 of the existing system (INFCIRC/66/Rev.2), the Agency had had the right for some time past to carry out such inspections. That right had been sparingly used in the past and would...be used only selectively in the future. It has to be remembered that the system elaborated by the Committee placed restraints on allowable inspections (Paragraph 55 was a case in point) and also restricted the areas to which an inspector would normally have access. [The U.S.] delegation had always ascribed a certain importance to the psychological deterrent value of surprise inspection and in the new conditions regarded the right to use such inspection as an important supplement to the Agency's general activities in carrying out its surveillance work."

69 OR 66

"In considering the question of inspection, it was always possible to postulate more or less ridiculous demands on the part of inspectors; but in point of fact both parties, in negotiating the basic agreement, could be expected to apply a rule of reason to ensure that requirements were reasonable in nature. The Agency for its part would be ready to fulfill the obligation laid down in Paragraph 18, requiring the inspector to comply with a State's health and safety regulations and the State could easily work out administrative arrangements to facilitate prompt designation of the official to accompany the inspector. And with modern means of travel, there should be no difficulty in having that official on the spot at short notice when required."

70 OR 66

"...[N]o specific period of advance notice has been included in sub-paragraph (a) and (b) of Paragraph 57.A, purely because it was impossible to foresee what length of notice could be given in the two cases in question. In the case of the special inspection, for example, the urgent consultation between the State and

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the Agency in respect to the unusual incident triggering the special inspection would in essence be the vehicle of notification; and in view of the need for inspectors to be on the spot as quickly as possible, limitation of access by a provision requiring one week advance notification of their arrival would hardly be acceptable."

71 OR 66

"...The underlying idea [of Paragraph 57.B] was that, in order to facilitate administrative arrangements and thus eliminate the kind of difficulty mentioned by Japan [in 62 OR 66] the State should be given a general indication in advance of the periods at which the Agency would be visiting the facility, both in connection with periods of intensive operation and for those times when random visits might be made.

75 OR 66

Canada: "...under Paragraph 57.B...the Agency would indicate within its general programme of inspection the facilities and material balance areas for which extended inspections were foreseen; and presumably such inspections would coincide with periods of extended operations in the facility. Thus, the State would be in a position to know when extended inspections would take place. The only exception would be for random inspections, where...it would be left to the Agency to decide whether or not advance notification should be given. No doubt in most cases random visits would be announced beforehand, but the Agency would retain the prerogative to make such visits entirely unannounced. Admittedly, an unannounced arrival of an inspector might give rise to practical difficulties; on the other hand from the psychological standpoint, there might be circumstances where the practice would be of value. ...[T]he Agency should be allowed to retain the right to make unannounced random visits at its own risk..."

Doc 151/Rev.1 U.S. Proposal

57.A. "The Agreement should provide that the Agency shall give advance notice to the State before arrival of inspectors at facilities or materials balance areas outside facilities, as follows:

- (a) For ad hoc inspections pursuant to sub-paragraph 45(c), at least 24 hours and for those pursuant to sub-paragraph 45(a) at least one week;

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- (b) For special inspections pursuant to Paragraph 47, as promptly as possible after the Agency and the State have consulted as provided for in Paragraph 52, it being understood that notification of arrival normally will constitute part of the consultations; and
- (c) For routine inspections pursuant to Paragraph 46, at least 24 hours in respect of facilities referred to in sub-paragraph 55(b), and one week in all other cases.

Such notice of inspections shall include the names of the inspector and shall indicate the facilities and the material balance areas outside facilities to be visited and the periods during which they will be visited. If the inspectors are to arrive from outside the State the Agency shall also give advance notice of the place and time of their arrival in the State.

57.B. However, the Agreement should also provide that, as a supplementary measure, the Agency may carry out without advance notification a portion of the routine inspections pursuant to Paragraph 55 in accordance with the principle of random sampling. In performing any unannounced inspections, the Agency shall fully take into account any operational programme provided by the State pursuant to Paragraph 38(b). Moreover, whenever practicable, and on the basis of the operational programme, it shall advise the State periodically of its general programme of announced and unannounced inspections, specifying the general periods when inspections are foreseen. In carrying out any unannounced inspections, the Agency shall make every effort to minimize any practical difficulties for facility operators and the State, bearing in mind the provisions of Paragraphs 18 and 57.H.

50 OR 67

Japan: "...[G]reatly regretted that the new text did not take into consideration the reservations of Japan concerning unannounced inspections... [I]f the provisions in Paragraph 57.B were carried out to the letter, that method of inspection would present more drawbacks than advantages, because if the inspectors arrived unannounced, they might run into numerous difficulties which could seriously lessen the efficacy of their mission..."

53 OR 67

U.K.: "As for the unannounced inspections,...the Inspector General...would certainly see that the great majority of inspections were carried out after advance notification."

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55 OR 67

U.S.S.R.: "...[D]uring the discussion on the frequency of the inspections, the Soviet delegation had considered the number provided for to be insufficient, but had given its agreement, on the understanding that the Agency had the right to carry out unannounced inspections..."

56 OR 67

"The formulation for Paragraphs 54.A and 57.B...was accepted."

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INFCIRC/153 Paragraphs 87-89

CONDUCT AND VISITS OF INSPECTORS

87. The Agreement should provide that inspectors, in exercising their functions under Paragraphs 48 and 71-75 above, shall carry out their activities in a manner designed to avoid hampering or delaying the construction, commissioning or operation of facilities, or affecting their safety. In particular inspectors shall not operate any facility themselves or direct the staff of a facility to carry out any operation. If inspectors consider that in pursuance of Paragraphs 74 and 75, particular operations in a facility should be carried out by the operator, they shall make a request therefor.

88. When inspectors require services available in the State, including the use of equipment, in connection with the performance of inspections, the State shall facilitate the procurement of such services and the use of such equipment by inspectors.

89. The Agreement should provide that the State shall have the right to have inspectors accompanied during their inspections by representatives of the State, provided that inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions.

54-56 Doc 62/Rev.1

54. The Agreement should mention the right of the State to have Agency inspectors accompanied during their inspection activities by its representatives, provided that the inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions. Agency inspectors not residing in the State shall use such points of entry into and departure from the State as may be designated by it and the State shall have the right to designate routes and modes of travel for Agency inspectors.

55. The Agreement should provide that Agency inspectors shall neither operate any facility themselves nor direct the staff of a facility to carry out any particular operations.

56. The Agreement should state that Agency inspectors shall be provided when necessary, on their request and for reasonable compensation if agreed on, with the appropriate equipment of carrying out inspections and with suitable accommodation and transport.

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Doc 62/Rev.1

IAEA: "The term equipment refers to items that are available on the site and that can be put at the inspector's disposal without obstruction to the operation of the facility... In all cases prior consultation would take place, which would also cover the cost aspect."

Doc 143/IAEA Proposal

Conduct and visits of inspectors

57.F. The Agreement should provide that inspectors shall not intervene in the operation of facilities or in nuclear activities outside facilities. If inspectors consider that particular operations should be carried out in the implementation of the Agreement, they shall make a request therefor.

57.G. When inspectors require services available in the State, including the use of equipment, in connection with the performance of inspectors, the State shall facilitate the procurement of such services and the use of such equipment by inspectors.

57.H. The Agreement should provide that the State shall have the right to have inspectors accompanied during their inspections by representatives of the State, provided that inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions.

Doc 147 F.R.G. Proposal

57.F. The Agreement should provide that inspectors in pursuance of their functions under Paragraphs 22 and 45-49 shall not hamper or delay the construction, commissioning or operation of facilities, or affect their safety. If inspectors consider that particular operations should be carried out in the implementation of the Agreement, they shall make a request therefor.

61 OR 65

F.R.G.: "...[The] purpose [of the amendment] was to spell out more clearly the rules to which the inspectors should conform in the exercise of their duties under Paragraphs 22 and 45-49, since the tasks that they would have to perform under those provisions might hamper or delay the construction, commissioning or operation of a facility."

65 OR 65

Japan: "...the text of Paragraph 55 in [Doc 62/Rev. 1]...[should] follow the first sentence of the amendment of the F.R.G.... [T]he agreement should also contain a provision to the effect that the

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operations referred to in the second sentence of Paragraph 57.F and of the amendment of the F.R.G. would be carried out in accordance with Agency instructions, in view of the possible implications of those operations, especially from the economic point of view."

66 OR 65

IAEA: "...no provision of an agreement would oblige a State or an operator to halt operation of a facility at the request of an inspector. The specific operations which inspectors were entitled to carry out were indicated in Paragraph 49 of the material the Committee had formulated, and it was therefore unnecessary to specify in another paragraph operations which were forbidden..."

69 OR 65

F.R.G.: "...[the] amendment related only to the technical aspects of inspection and had nothing to do with the political aspects, which were already covered by Paragraphs 9 and 4(b) of the material for Part I. It was only a question of providing guidelines for the inspectors...and ensuring that smooth cooperation was established between the States and the Agency."

71 OR 65

India: "...[T]he original provision of Paragraph 55 [in Doc 62/Rev.1]...should be reintroduced. In addition to the activities which inspectors were authorized to carry out under Paragraphs 48 and 49, it was also necessary to lay down those which were forbidden."

Doc 147/Rev.1 F.R.G. Proposal

57.F. The Agreement should provide that inspectors, in exercising their functions under Paragraphs 22 and 45-49 shall carry out their activities in such a manner as to avoid hampering or delaying the construction, commissioning, or operation of facilities, or affecting their safety. In particular, inspectors shall not operate any facility themselves or direct the staff of a facility to carry out any operation. If inspectors consider that in pursuance of Paragraphs 48 and 49, particular operations of a facility should be carried out, they shall make a request thereof.

4 OR 67

U.S.: "...[T]he words 'in such a manner as' [should be] replaced by the words 'in a manner designed'..."

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international agreement who were the responsible parties for control in the context of that agreement. The answer...to the first question...(a) was therefore no'."

4 OR 51

"...[P]hysical security was a matter for States. The four delegations believed that principle also held good in connection with international transfers and that there was no operational role for the Agency to play. Accordingly, their answer to...item (b) was also in the negative."

4 Doc 119/Canada/France/Sweden/U.K. Comment

"...[W]hen safeguarded material is stated to be leaving an exporting State, the Agency will wish to satisfy itself as to the genuineness of the transaction involved. It would therefore be reasonable for advance notice to be given to the Agency except when very small transfers are in question; it would be helpful for the Agency to be in a position to verify that the material had been received by the importing State; and it would also be helpful if the Agency could have some assurance that transferred material had not been tampered with while in transit... [I]f the Agency were notified by the exporting State of the date when the material was to be prepared for export, this could enable the Agency to have a representative present in order to affix to the container a seal which could, where appropriate, be re-examined, if the Agency so wished, when the shipment arrived."

3 Annex OR 51

3. The Agreement should further provide that the purpose of this notification shall be to enable the Agency to verify the quantity and composition of nuclear material subject to safeguards under the Agreement before it is transferred out of the State, and, if it so wishes, to affix a seal to the material when it has been prepared for shipping. However, the transfer of the material shall not be delayed in any way by any action of the Agency taken pursuant to this provision.

53 OR 53

U.K.: "...the word 'identification' should be added before 'quantity' in the first sentence; the word 'seal' in that sentence should be plural; and the word 'provision' at the end of the last sentence should be replaced by 'notification'."

55 OR 53

U.K.: "...the word 'it' in the phrase 'if it so wishes' should be replaced by 'the Agency'."

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56 OR 53

France: "...the words 'if necessary' should be inserted after the word verify in the first sentence."

57 OR 53

Australia: "...the words 'or if the State so requests' should be added after the words 'if the Agency so wishes' in the first sentence."

59 OR 53

IAEA: "...the Committee agreed on the general tenor of the paragraph..."

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INFCIRC/163 Paragraphs 95-97

TRANSFER INTO THE STATE

95. The Agreement should provide that the expected transfer into the State of nuclear material required to be subject to safeguards in an amount greater than one effective kilogram, or by successive shipments from the same State within a period of three months each of less than one effective kilogram but exceeding in total one effective kilogram, shall be notified to the Agency as much in advance as possible of the expected arrival of the nuclear material, and in any case not later than the date on which the recipient State assumes responsibility therefor. The Agency and the State may agree on different procedures for advance notification. The notification shall specify:

- (a) The identification and, if possible, the expected quantity and composition of the nuclear material;
- (b) At what point of the transfer responsibility for the nuclear material will be assumed by the State for the purposes of the Agreement, and the probable date on which this point will be reached; and
- (c) The expected date of arrival, the location to which the nuclear material is to be delivered and the date on which it is intended that the nuclear material should be unpacked.

96. The Agreement should provide that the purpose of this notification shall be to enable the Agency if necessary to identify, and if possible verify the quantity and composition of, nuclear material subject to safeguards which has been transferred into the State, by means of inspection of the consignment at the time it is unpacked. However, unpacking shall not be delayed by any action taken or contemplated by the Agency pursuant to this notification.

Special reports

97. The Agreement should provide that in the case of international transfers a special report as envisaged in Paragraph 68 above shall be made if any unusual incident or circumstances lead the State to believe that there is or may have been loss of nuclear material, including the occurrence of significant delay during the transfer.

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16-17 Doc 3Advance notification of international transfers

16. As foreseen by the provisions in Paragraph 54 of the Safeguards Document, the Agency should be in a position to perform special inspections of significant quantities of nuclear material before these are transferred out of the State. Such special inspections would enable the Agency to measure the nuclear material to be transferred and to check the measures taken for the protection of the nuclear material during transit. Accordingly the advance notification should indicate the protective measures to be taken. The transfer would not be delayed by any action of the Agency taken pursuant to an advance notification. It is expected that, if required, the exporting State will be able to provide the Agency with corroboration from the recipient State that the material has been received so that the material can ultimately be removed from the inventory of the exporting State. When material is exported to another non-nuclear-weapon State for peaceful purposes, it would again have to come under a safeguards agreement with the Agency; in that case advice of the arrival of the material will reach the Agency from the recipient State.

Contents of reports

17. The Agreement should indicate some essential parts of the content of reports and advance notifications; the Subsidiary Arrangements would contain the necessary details. These essential parts would include a specification of the nuclear and chemical composition, the physical form, the total weight of the element and the weight of fissionable isotopes for each type of nuclear material... Furthermore, the originating and the receiving material control area (or the recipient) should be indicated; advance notifications should also give the expected date of a transfer.

67 OR 29

F.R.G.: "...[There was] no value in special inspections if the materials were to remain on the inventory of the State until corroboration of receipt was obtained from the recipient State. It was also necessary to define clearly the responsibility for nuclear materials during transit after they had left the jurisdiction and control for the dispatching State..."

1 OR 30

India: "...[N]uclear materials should be regarded as being under the control of the State which has actual responsibility for them; a criterion based on the 'right' to decide on their utilization did not seem...satisfactory."

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9 OR 30

U.S.: "The recipient State which had purchased the fuel elements would be as well informed as the supplier on the quantity and isotopic composition of the nuclear materials. Although it was correct to say that when the irradiated material was returned its composition would not be accurately known until the chemical processing had begun, it was nevertheless the operator who would be in the best position to know the probable composition of the fuel which had been irradiated in his reactor and it was that provisionally determined composition which should be indicated in the advance notification."

20 OR 30

U.K.: "Proposed amending the second sentence of Paragraph 17 to read as follows: 'These essential parts would include for each type (or batch) of nuclear material a specification (information) of (on) the physical form, the total weight and the nuclear and chemical composition'... [I]t was [not] necessary to include in the advance notifications the weights of fissionable isotopes but it was...necessary to envisage the possibility of the consignment of nuclear materials in non-homogeneous batches..."

Doc 119 Canada/France/Sweden/U.K. Proposal

Transfers into the State

5. The Agreement should provide that the State shall report to the Agency all receipts of nuclear material subject to safeguards thereunder. Unless otherwise agreed between the State and the Agency, the expected receipt of nuclear material subject to safeguards in an amount greater than one effective kilogram shall be reported to the Agency in advance of, and if possible at least two weeks before, the expected arrival of the material. The report shall specify:

- (a) The quantity and composition of the nuclear material;
- (b) At what point of the transfer, and on what probable date, the material will be accepted by the State as under its control for safeguards purposes; and
- (c) The expected date of arrival, the location to which the material is to be delivered and the date on which it is intended that the material should be unloaded.

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6. The Agreement should provide that the Agency shall have an opportunity to verify the quantity and composition of nuclear material subject to safeguards which has been imported into the State by means of inspection of the consignment to the time it is unloaded. However, unloading shall not be delayed by any action taken by the Agency pursuant to this provision.

9 OR 51

U.K. (introducing the four delegation proposal for discussion):
"No major changes would be made to Paragraphs 5 and 6, but in the revised version, provision would be made for informing the Agency in cases where nuclear material had not arrived at its destination."

18 OR 51

Japan: "...All transfers of nuclear material involving non-nuclear-weapon States would require notification to the Agency, but no notifications were required from nuclear-weapon States. In the event of transfers between a non-nuclear-weapon State and a nuclear-weapon State, the Agency would not obtain a complete picture of the transaction unless the nuclear-weapon State chose to provide it with information. Such provision might be made for the Agency to obtain information from nuclear-weapon States so that its information cycle would be complete."

24 OR 51

India: "...[T]he word 'state' should be made clear wherever it was used, especially in Paragraphs 4 and 5..."

29 OR 51

Hungary: "...insertion of 'to non-nuclear-weapon States' after 'transferred internationally' [was] unnecessary, because it was clear from the text that Paragraph 4 covered the case where the recipient State was a nuclear-weapon State whereas Paragraph 5 dealt with the case of a non-nuclear-weapon State..."

5-7 Annex OR 51

• Transfers into the State

5. The Agreement should provide that unless (especially in cases where the material is to be transferred from a State where it was subject to safeguards) the State and the Agency agree otherwise, the expected transfer into the State of nuclear material subject

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to safeguards in an amount greater than one effective kilogram shall be notified to the Agency as much in advance as possible of the expected arrival of the material. The notification shall specify:

- (a) The expected quantity and composition of the nuclear material;
- (b) At what point of the transfer the material will be accepted by the State as under its control for safeguards purposes, and the probable date at which this point will be reached; and
- (c) The expected date of arrival, the location to which the material is to be delivered, and the date on which it is intended that the material should be unloaded.

6. The Agreement should provide that the purpose of this notification shall be to enable the Agency to verify the quantity and composition of nuclear material subject to safeguards which has been transferred into the State by means of inspection of the consignment at the time it is unloaded. However, unloading shall not be delayed by any action taken by the Agency pursuant to this provision.

7. The Agreement should provide that with respect to transfers into or out of the State of nuclear material subject to safeguards under the Agreement, the State shall immediately notify the Agency of any theft or loss enroute or significant delay in the completion of the transfer. The notification shall include information concerning shipping arrangements, including carriers, routing, and protective measures.

2 Annex OR 52

2. Replace the first sentence of Paragraph 5 by:

The Agreement should provide that unless the State and the Agency agree otherwise, an expected transfer into the State of nuclear material requiring an advance notification pursuant to Paragraph 2 shall be notified to the Agency as much in advance as possible of the expected arrival of the material.

71 OR 53

U.K.: "Suggested inserting 'but in any case immediately after the State accepts control' after 'arrival of the material' at the end of the first sentence in Paragraph 5... [T]he word 'identification' [should be introduced] before 'expected quantity' in sub-paragraph (a) and 'unloaded' [should be replaced] by 'unpacked' in sub-paragraph (c)."

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75 OR 53

U.S.S.R.: "...a difficulty...had been mentioned during the discussion of Paragraph 2...which [was] also reflected in Paragraph 5: it should not be possible for the Agency and the State to agree that no advance notification need be provided."

78 OR 53

IAEA: "...there appeared to be a consensus in favor of accepting Paragraph 5 with the amendments suggested."

80 OR 53

Hungary: "...Paragraph 6 should be brought in line with that of Paragraph 4."

83 OR 53

Australia: "...Paragraph 7 dealt with transfers into or out of States, whereas the heading of the section was 'Transfers into the State'."

85 OR 53

U.K.: "...the phrase 'into or out of the State' in the first sentence of Paragraph 7 referred to the State which was, at the time in question, responsible for the nuclear material..."

86 OR 53

Italy: "...loss or theft of nuclear material during transport would [not] be treated differently from loss or theft on the territory of a State, as dealt with in the provisions on special reports which the Committee has formulated [38 Doc 92/Rev.1]... [T]he requirement that the State should provide the Agency with all the details of what was being done to recover the material [was objectionable]... [T]he special reports should also apply in the case of transfers of nuclear material."

89 OR 53

U.S.: "[Suggested]...including a reference to [38 Doc 92/Rev.1]."

90 OR 53

U.S.S.R.: "...Paragraph 7 provided for notification in the event of 'significant delay in the completion of the transfer' a provision which was not included in the provisions on special reports."

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Annex Doc 119/Mod.2

Transfers into the State

5. The Agreement should provide that the expected transfer into the State of nuclear material subject to safeguards in an amount greater than one effective kilogram, or by successive shipments from the same State within a period of three months exceeding in total one effective kilogram, shall be notified to the Agency as much in advance as possible for the expected arrival of the material, and in any case not later than the date on which the recipient State assumes responsibility. The Agency and the State may agree on different procedures for advance notification.

The notification shall specify:

- (a) The expected identification, quantity and composition, as appropriate, of the nuclear material;
- (b) At what point of the transfer responsibility for the material will be assumed by the State for the purposes of the Agreement, and the probable date at which this point will be reached; and
- (c) The expected date of arrival, the location to which the material is to be delivered and the date on which it is intended that the material should be unpacked.

6. The Agreement should provide that the purpose of this notification shall be to enable the Agency to verify the identification, quantity and composition, as appropriate, of nuclear material subject to safeguards which has been transferred into the State by means of inspection of the consignment at the time it is unpacked. However, unpacking shall not be delayed by any action taken by the Agency pursuant to this notification.

Special reports

7. The Agreement should provide that in the case of international transfers a special report as envisaged in Paragraph 35 shall be made if any unusual incident or circumstances lead the State to believe that there is or may have been loss of nuclear material, including the occurrence of significant delay during the transfer.^{1_/}

^{1_/} In order to meet comments made during the discussion of Paragraph 1, the four co-sponsors suggest that the Committee may wish to recommend to the Board that the services of the Agency should include the giving of advice to Member States on request to assist them to ensure effective security of nuclear material during international transfer.

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1 OR 54

U.K.: "...[P]aragraph 7 gave no indication as to what the special report should contain and...had to be read in connection with the provisions on special reports [38 Doc 92/Rev.1]."

4 OR 54

India: "...[T]wo distinct concepts were involved [in Paragraph 7] and...it would be better to put a full stop after 'nuclear material' and close the paragraph with a sentence reading: 'A special report should also be made in the event of significant delay during the transfer'."

16 OR 54

Netherlands: "...[T]he footnote to Paragraph 7 [was] unnecessary as the Agency would undoubtedly be willing, whenever possible, to give advice to Member States. The effect of the footnote might be to place an additional burden on the Agency and to hamper it with new and possibly costly obligations."

32 OR 54

U.K.: "...While it was perhaps stretching a point to say that the occurrence of significant delay during transfer was an unusual incident that might lead the State to believe there had been or might have been loss of material, [it was preferable] to leave the notion of significant delay in that paragraph rather than attempt to include it elsewhere."

37 OR 54

U.S.: "...Although [accepting] the logic of what [India] had said about Paragraph 7,...all things considered, it would be better to leave the wording as it stood."

38 OR 54

"...[T]he Agency [should] be in a position to offer advice to Member States, at their request, on questions relating to transport of nuclear materials. The footnote to Paragraph 7 gave recognition to the principle that the Agency had a responsibility to do so. Increases in staff should not be necessary to provide the advice that might be requested in relation to the security of nuclear material during international transfer; the expertise at present available to the Director General should be sufficient for the purpose..."

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52 OR 54

IAEA: "...[the Committee] accepted Paragraph 5 with the addition of the words 'required to be' before 'subject to' at the beginning of the first sentence and with the same insertion later in that sentence as in Paragraph 2;...it accepted Paragraph 6 with the same changes as in Paragraph 3, and...it accepted Paragraph 7 as it stood... [T]he Committee wished to consider the suggestion made in the footnote to Paragraph 7 when it was preparing its report to the Board."

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INFCIRC/153 Paragraph 106

DEFINITIONS

106. "Facility" means:

- (a) A reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant or a separate storage installation; or
- (b) Any location where nuclear material in amounts greater than one effective kilogram is customarily used.

72 Doc 62/Rev.1

72. Facility means a reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant, or a separate storage or other locations, containing or to contain nuclear material.

2 OR 56

U.S.: "...the definition of...'facility'...in [Doc 62/Rev.1] was too broad and might lead States to supply design information in respect of places like hospitals, university laboratories... where nuclear material was present from time to time and sometimes in infinitesimal amounts... [T]he definition should be more limited in scope..."

Doc 120 U.S. Proposal

72. Facility means an installation, plant or unit for the production or processing of nuclear material, or an area where nuclear material in amounts greater than one effective kilogram is customarily used or stored.

3 OR 56

U.S.: "...[C]ertain changes...resulted from that amendment [Doc 120], in particular as regards information to be made available to the Agency in respect of nuclear material outside facilities..." [Doc 127 amending the section related to DESIGN INFORMATION of Part II and the section INFORMATION IN RESPECT OF NUCLEAR MATERIAL OUTSIDE FACILITIES was introduced.]

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4 OR 56

U.K.: "fully approved the U.S. proposal which...sought to reduce the amount of design information required to be made available to the Agency where it related to small quantities of nuclear material present in places such as hospitals... [W]hat...did the U.S. [mean] by 'unit for the production' in the definition of... 'facility'."

6 OR 56

France: "...the new definition of 'facility' covered all research laboratories using more than one effective kilogram of nuclear materials."

8 OR 56

U.S.: re "...the meaning of the words 'unit for the production'...the installation was a complex system which used, produced or processed nuclear materials; the plant was also an aggregate, but an aggregate with a single purpose, namely production or processing, possibly a research laboratory." Neither of those words covered exactly the case of a single installation such as the National Bureau of Standards, which possessed a large research reactor, and that was what [was] understood by 'the unit for production'."

9 OR 56

U.S.: "In reply to France,...the new wording [in Doc 127] Paragraph 16(b) was intended to meet the requirements for a description of a large installation of the laboratory type, where the utilization of nuclear materials could not always be exactly described."

11 OR 56

F.R.G.: "Proposed replacing, in [Doc 120], the word 'area' by the word 'location.'"

14 OR 56

Poland: "...[P]roposed adding the words 'a reactor' after the word 'means' in [Doc 120]."

15 OR 56

Canada: "...proposed introducing that concept of utilization in the definition of 'facility' by adding after the word 'unit' in...[Doc 120] the words 'for the use'."

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16 OR 56

U.S.: "...agree to...'location' for...'area'...agreed to the addition of...'a reactor' before 'and installation'...since it was perhaps wise to take account of borderline cases; i.e., reactors which might use quantities of nuclear materials of less than one effective kilogram. However, it would be more difficult to accept ...adding...'for the use' after the word 'unit' [since it] would give the impression that the criterion of the effective kilogram did not apply to utilization, and that was just what [the U.S.] delegation wanted to avoid..."

17 OR 56

France: "...it would be better to say 'another location'...in [Doc 120], and...to make sure that the criterion of effective kilogram applied not only to that location but also to the installation, plant or unit for production mentioned in the proposal."

18 OR 56

South Africa: "...if one interpreted the wording strictly, there would be many locations...where there was more than one effective kilogram; thus the whole problem was to define the nuclear materials, and...the qualification 'processed' might be placed before ...'nuclear material'."

19 OR 56

U.K.: "...'unit' might lead to confusion and somehow overlap with...'installation'."

20 OR 56

U.S.: "...the wording of [Doc 120] showed clearly that the criterion of the effective kilogram applied to all elements entering into the definition of 'facility'."

21 OR 56

Re: Objection of South Africa..."mineral wastes were not nuclear materials for the purposes of the agreement, but there would certainly be some advantage in stating that fact explicitly in the definition of the term 'nuclear material'."

22 OR 56

"...[F]or the purpose of the safeguards agreement,...'installation' could signify a part of a plant."

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24 OR 56

France: "...the definition...in the U.S. amendment [Doc 120] was somewhat too general, and if the criterion of the effective kilogram was not made to apply very explicitly to installations or plant, the conclusion might be drawn that pilot plants, research centers and laboratories came within the category of facilities referred to..."

25 OR 56

U.S.: "...an installation for the production or processing of nuclear materials could not be a laboratory or research center..."

28 OR 56

IAEA: Discussion postponed.

Doc 120/Rev.1 U.S. Proposal

72. Facility means a reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant, a separate storage installation, or any location where nuclear material in amounts greater than one effective kilogram is customarily used.

28 OR 58

U.S.: "...had taken up the suggestion...of the F.R.G. [11 OR 56] and had drawn upon the original suggestion...by the [IAEA in Doc 62/Rev.1], combining it with the concept of locations in which nuclear material in amounts greater than one effective kilogram was customarily used. To avoid ambiguity,...the text as proposed should be broken up into sub-paragraphs...the final drafting could be kept to the Secretariat. Under the new definition, important nuclear laboratories would be regarded as facilities, but laboratories containing small amounts of nuclear material or locations in which large amounts of material were not customarily found would not be so regarded. Ultimately, however, [the U.S.] delegation's support for that approach would depend, in part, on action taken by the Committee in respect of the definition of other terms."

32 OR 58

U.S.: "...in practice, the locations with which [the paragraph on INFORMATION IN RESPECT OF NUCLEAR MATERIAL OUTSIDE FACILITIES] dealt would probably use quantities of material in amounts below one effective kilogram, but the paragraph was not directed exclusively at locations handling such amounts. For a location to be a 'facility', two criteria had to be met: it had to use more than one effective kilogram of nuclear material and its use of such amounts had to be customary."

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33 OR 58

IAEA: "...the Committee was prepared to accept the definition of 'facility' in [Doc 120/Rev.1], subject to the drafting change suggested [by the U.S.]..."

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INFCIRC/153 Paragraph 112

112. "Nuclear material" means any source or any special fissionable material as defined in Article XX of the Statute. The term source material shall not be interpreted as applying to ore or ore residue. Any determination by the Board under Article XX of the Statute after the entry into force of this Agreement which adds to the materials considered to be source material or special fissionable material shall have effect under this Agreement only upon acceptance by the State.

83 Doc 62/Rev.1

83. Nuclear material means any source or special fissionable material as defined in Article XX of the Agency's Statute and shall include all isotopes of plutonium.

Doc 62/Rev.1

IAEA: "The Statute speaks only of 239 Pu, an inconsistency dating possibly from inadequate knowledge at the time of drafting. This definition may eventually need to be included in Part I."

(f) Doc 144

- (f) Nuclear material means "special fissionable material" or "source material", defined as follows:
- (i) "Special fissionable material" means plutonium-239, uranium-233, uranium enriched in the isotopes 235 or 233, any material containing one or more of the foregoing, and such other fissionable material as the Board may from time to time determine; but the term "special fissionable material" does not include source material;
 - (ii) "Uranium enriched in the isotopes 235 or 233" means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotopes 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature; and
 - (iii) "Source material" means uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other material containing one or more of the foregoing in such concentration as the Board may from time to time determine; and such other material as the Board shall from time to time determine.

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Any determination by the Board in accordance with sub-paragraphs (i) or (iii) above shall have effect under the Agreement only on acceptance by...[the State];

1 Doc 153 Canada/Czechoslovakia/Denmark/F.R.G./Hungary/Japan/Netherlands/Poland/Sweden/U.K. Proposal

Nuclear material means any source or any special fissionable material as defined in Article XX of the Agency's Statute except plutonium containing plutonium-238 in concentrations exceeding 80%.

1 OR 69

U.K.: "...concerned...only with definitions of a technical nature and...had taken over some of the terminology used in [Doc 62/Rev.1].

2 OR 69

"As regards the definition...of 'nuclear material'...plutonium in concentrations higher than 80% was a material which had essential uses in medicine, especially in heart pacemaker devices. Plutonium-238 in that concentration was obtained not directly from irradiated fuel elements; i.e., fissionable materials as defined by the Statute... Balancing the humanitarian requirement against the unlikely possibility that the material could pose a military threat, exclusion from safeguards seemed to be the right course. The possible exception of exemption, could be acceptable but would put an additional and...unnecessary burden on the Inspectorate."

Doc 155 South Africa Proposal

"...after the word 'except' [in Doc 153] insert the words 'source material in the form of ore and'."

3 OR 69

South Africa: "...in South Africa uranium ore was extracted as a by-product of gold... [T]he South African Government had made it an absolute principle not to admit any control in that field which could lead to any form of interference in its gold mining industry. It had no difficulty in approving Article XX of the Statute, since the materials referred to therein were subject to safeguards on a voluntary or unilateral basis only. However, once a new definition had been adopted for the purposes of the [NPT], South Africa considered it essential that it should be specified that raw materials in the form of ore should not be considered as nuclear materials... [M]ines and processing plants had been excluded from the definition of the originally provided for...'facility,' in order to allay concern of [the South African] Government...."

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5 OR 69

U.S.: "...the wording of the definition might give the impression that physical mixtures were excluded..."

6 OR 69

Canada: "...had some difficulty understanding the need for the [South African] amendment...since...the Committee had [previously] decided...that safeguards should not apply to 'material in mining or ore processing activities'."

7 OR 69

Switzerland: Re: exemption of plutonium-238 in concentrations exceeding 80% "...[I]f one bore in mind that production of that material might well attain several tons over the next ten years ...there was surely some reason to fear that a real danger of infringement of NPT might arise, even though the cost of the operation in question was very high and its technical applications extremely complex."

8 OR 69

U.K.: "...a more precise formulation would eliminate all ambiguity: one could, for example, replace the words 'plutonium containing plutonium-238...' by 'plutonium-238 in an isotopic concentration exceeding 80%'."

9 OR 69

"As to the concern...of Switzerland,...that the amounts of plutonium-238 which could be obtained from the neptunium-237 produced in either thermal or fast reactors were extremely small; owing to the technical difficulties of the process, they came nowhere near 1% of world production of the other isotopes of plutonium. Production of plutonium-238 should be measured not in tons but in kilograms. Thus the plutonium-238 requirements for heart pacemakers were unlikely to exceed a few kilograms per year. That being so, the request for exemption could hardly be thought of as a serious loophole in plutonium controls."

11 OR 69

India: "saw no reason not to specify in the definition of 'nuclear material' that ores were to be excluded..."

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12 OR 69

U.S.: "...even if Paragraph 7 of the material for Part II exempted ores from safeguards in both mining and ore processing activities, it was not certain that the same could be said for Paragraph 8, which provided that States must submit reports to the Agency on materials containing uranium or thorium. However, the amendment proposed by South Africa raised the fundamental question whether or not the Committee believed that ores should be included among the materials subject to reporting under Paragraph 8. The program required careful thought, and before coming to any conclusion the United States delegation wished to consult with other delegations..."

13 OR 69

India: "...Paragraph 7 and sub-paragraph, (a) and (b), of Paragraph 8 referred only to 'material' and not to 'nuclear materials'; the latter term appeared only in sub-paragraph (c), and it was perfectly clear that sub-paragraph could not only apply to ores... [T]he use of two different terms suggested that the intention was not to include ores."

1 Doc 160 U.S. Proposal

Nuclear material means any source or any special fissionable material as defined in Article XX of the Statute. The term source material shall not be interpreted as applying to ore or ore residue. Any determination by the Board under Article XX of the Statute after the entry into force of this Agreement which adds to the materials considered to be source material or special fissionable material shall have effect under this Agreement only upon acceptance by the State.

5 OR 75

U.S.: "...[Doc 160] while not affecting the reporting requirements in sub-paragraphs (a) and (b) of the material for Part II of agreements [Doc 92/Rev.2] took into account all the suggestions made earlier. Its object was to clarify certain intricate points and to avoid any risk of confusion."

6 OR 75

Australia: "...the Committee had decided to refrain from citing texts in the definitions. The first sentence of the U.S. formulation, however, contained a reference to Article XX of the Statute."

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8 OR 75

U.S.: "...such a reference should not give rise to any difficulty."

14 OR 75

"The definition of nuclear material in [1 Doc 160] was accepted."

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