



International Atomic Energy Agency

GENERAL CONFERENCE

GC(XXXII)/840
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Thirty-second regular session
Items 10 and 11 of the provisional agenda
(GC(XXXII)/834)

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION

and

STATUS AND IMPLEMENTATION OF CONVENTIONS FOR WHICH THE AGENCY IS DEPOSITARY

Report by the Board of Governors and the Director General*/

1. At its thirty-first regular session, in September 1987, the General Conference adopted four resolutions – GC(XXXI)/RES/472 to 475 – under the heading "Measures to strengthen international co-operation in nuclear safety and radiological protection" (copies of these four resolutions are attached).
2. In resolution GC(XXXI)/RES/472, the Conference requested the Director General to report to it at its thirty-second regular session on the signature and ratification status of the Convention on the Physical Protection of Nuclear Material. Annex 1 to this document has been prepared in response to that request.

*/ When considering this report, delegates may find it helpful to consult document GC(XXXI)/816, containing a report which was submitted by the Board and the Director General to the Conference for its thirty-first regular session and which described – inter alia – the September 1987 status of work within the framework of the Agency on "Measures to strengthen international co-operation in nuclear safety and radiological protection".

3. In resolution GC(XXXI)/RES/473, the Conference requested the Board and the Secretariat to continue with the activities already initiated with regard to strengthening international co-operation in nuclear safety and radiological protection and to report to it on progress at its thirty-second regular session; in resolution GC(XXXI)RES/474, the Conference requested the Director General to keep it informed about progress with regard to the sharing of nuclear-safety-related information; and in resolution GC(XXXI)/RES/475, concerning the protection of nuclear installations against armed attacks, the Conference authorized the Director General "to assist the work of the Conference on Disarmament and other competent international organs, at their request, by undertaking studies within the technical competence and statutory responsibilities of the Agency" and requested him to keep the General Conference informed about the progress in that regard. An account of the response to these requests is given in Annex 2 to this document.

4. In addition, the General Conference requested the Director General to include in the provisional agenda for its thirty-second regular session an item entitled "Status and implementation of conventions for which the Agency is depositary: (a) Convention on the Physical Protection of Nuclear Material; (b) Convention on Early Notification of a Nuclear Accident; (c) Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency; (d) Convention on Civil Liability for Nuclear Damage". As regards the Convention on the Physical Protection of Nuclear Material, delegates are referred to Annex 1 to this document. As regards the other three conventions, delegates are referred to Annex 2 (for information about their implementation) and Annex 3 (for information about their status).

ANNEX 1

**SIGNATURE AND RATIFICATION STATUS, AS AT 30 JUNE 1988, OF THE
CONVENTION ON THE PHYSICAL PROTECTION OF NUCLEAR MATERIAL
(Opened for signature at Vienna and New York on 3 March 1980)**

Situation as of 21 September 1987 (date of
issue of GC(XXXI)/816)

<u>State/Organization</u>	<u>Signed</u>	<u>Place</u>	<u>Ratified</u>
1. USA	3 March 1980	New York,Vienna	<u>13 December 1982</u>
2. Austria	3 March 1980	Vienna	
3. Greece	3 March 1980	Vienna	
4. Dominican Republic	3 March 1980	New York	
5. Guatemala	12 March 1980	Vienna	<u>23 April 1985</u>
6. Panama	18 March 1980	Vienna	
7. Haiti	9 April 1980	New York	
8. Philippines	19 May 1980	Vienna	<u>22 September 1981</u>
9. German Democratic Rep.	21 May 1980	Vienna	<u>5 February 1981</u>
10. Paraguay	21 May 1980	New York	<u>6 February 1985</u>
11. USSR	22 May 1980	Vienna	<u>25 May 1983</u>
12. Italy(*)	13 June 1980	Vienna	
13. Luxembourg(*)	13 June 1980	Vienna	
14. Netherlands(*)	13 June 1980	Vienna	
15. United Kingdom(*)	13 June 1980	Vienna	
16. Belgium(*)	13 June 1980	Vienna	
17. Denmark(*)	13 June 1980	Vienna	
18. Fed.Rep.of Germany(*)	13 June 1980	Vienna	
19. France(*)	13 June 1980	Vienna	
20. Ireland(*)	13 June 1980	Vienna	
21. EURATOM	13 June 1980	Vienna	
22. Hungary	17 June 1980	Vienna	<u>4 May 1984</u>
23. Sweden	2 July 1980	Vienna	<u>1 August 1980</u>
24. Yugoslavia	15 July 1980	Vienna	<u>14 May 1986</u>
25. Morocco	25 July 1980	New York	
26. Poland	6 August 1980	Vienna	<u>5 October 1983</u>
27. Canada	23 September 1980	Vienna	<u>21 March 1986</u>
28. Romania	15 January 1981	Vienna	
29. Brazil	15 May 1981	Vienna	<u>17 October 1985</u>
30. South Africa	18 May 1981	Vienna	

(*) Signed as EURATOM member State.

Note: The Convention entered into force on 8 February 1987, i.e. on the thirtieth day following the deposit of the twenty-first instrument of ratification, acceptance or approval with the Director General pursuant to Article 19, paragraph 1.

<u>State/Organization</u>	<u>Signed</u>	<u>Place</u>	<u>Ratified</u>
31. Bulgaria	23 June 1981	Vienna	<u>10 April 1984</u>
32. Finland	25 June 1981	Vienna	
33. Czechoslovakia	14 September 1981	Vienna	<u>23 April 1982</u>
34. Korea, Republic of	29 December 1981	Vienna	<u>7 April 1982</u>
35. Norway	26 January 1983	Vienna	<u>15 August 1985</u>
36. Israel	17 June 1983	Vienna	
37. Turkey	23 August 1983	Vienna	<u>27 February 1985</u>
38. Australia	22 February 1984	Vienna	
39. Portugal	19 September 1984	Vienna	
40. Niger	7 January 1985	Vienna	
41. Liechtenstein	13 January 1986	Vienna	<u>25 November 1986</u>
42. Mongolia	23 January 1986	New York	<u>28 May 1986</u>
43. Argentina	28 February 1986	Vienna	
44. Spain(*)	7 April 1986	Vienna	
45. Ecuador	26 June 1986	New York	
46. Indonesia	3 July 1986	Vienna	<u>5 November 1986</u>
47. Switzerland	9 January 1987	Vienna	<u>9 January 1987</u>

Developments since 21 September 1987

Australia (see entry 38 above) ratified on 22 September 1987.

Mexico acceded on 4 April 1988.

ANNEX 2

ACCOUNT OF THE RESPONSE TO REQUESTS MADE BY THE
GENERAL CONFERENCE IN RESOLUTIONS GC(XXXI)/RES/473 to 475

1. On 28 September 1987, immediately after the General Conference's thirty-first regular session, the Board decided tentatively to take up points covered by resolution GC(XXXI)/RES/473 in February 1988.^{1/}

2. In February 1988, the Board considered "Measures to strengthen international co-operation in nuclear safety and radiological protection" under the following headings:
 - (a) Actions relating to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, including the reliability of the IAEA communication system;

 - (b) Liability for nuclear damage;

 - (c) Continuation of other work relating to nuclear safety and radiological protection; and

 - (d) The International Nuclear Safety Advisory Group (INSAG).^{2/}

^{1/} See GOV/OR.685, paras 40 and 44.

^{2/} The Board's discussions in February of "Measures to strengthen international co-operation in nuclear safety and radiological protection" are summarized in GOV/OR.686-688.

3. At the conclusion of its discussion under the heading "Actions relating to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, including the reliability of the IAEA communication system", for which the Board had before it documents GOV/INF/540, GOV/INF/546 and GOV/2332, the accepted summing-up by the Chairman was as follows (GOV/OR.686):

160. The CHAIRMAN took it that the Board noted, generally with satisfaction, the progress made in arranging for the use of WMO's Global Telecommunication System (GTS) in support of the Early Notification Convention, and that it concluded, with satisfaction, from document GOV/INF/546, entitled "The false rumour of 3 February 1988 about a nuclear accident", that no link had been established between the rumour and the Agency's communication systems.

161. As to the suggestions made, questions asked and doubts expressed regarding the various communication channels used by the Agency, and in particular the GTS, and as to the proposals made by the Governors from Sweden and Chile regarding a Secretariat study prior to the meetings in June, the Director General would no doubt consider those matters and report to the Board in due course.

162. He also took it that the Board appreciated the information provided on the assistance rendered through the Agency following the radiological accident which had occurred in October 1987 in the city of Goiania and noted the steps being taken within the Secretariat to enhance its capacity to respond swiftly to emergencies.

163. He assumed, furthermore, that the Board wished to take note of the Brazilian authorities' actions in response to the accident and of the steps they were taking to exchange information on it and learn lessons therefrom.

164. In addition, he took it that the Board hoped that those States which had not yet become parties to the two Conventions adopted at the special session of the General Conference in 1986 would do so soon, and that further progress would be made in establishing contact points for purposes of the Early Notification Convention.

165. Lastly, he assumed that the Board wished to take note of the information contained in document GOV/INF/540.

4. At the conclusion of its discussion under the heading "Liability for nuclear damage", for which the Board had before it documents GOV/2326, GOV/INF/537 and GOV/INF/538, the accepted summing-up by the Chairman was as follows (GOV/OR.687):

84. The CHAIRMAN, summing up the discussion under the sub-item "Liability for nuclear damage", said that if there were no objections he would take it that, as recommended in paragraphs 7 and 8 of document GOV/2326, the Board wished to endorse the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention, contained in Annex I to that document, and that it agreed to the convening of a one-day conference to be organized jointly by the Agency and NEA in conjunction with the thirty-second regular session of the General Conference for the purpose of adopting the Joint Protocol and opening it for signature. He would also take it that the Board recommended inviting to the conference all Agency and NEA Member States, with the understanding that only the signatories of the Paris or Vienna Convention would be invited to sign the resulting Protocol.

86. The CHAIRMAN said he further assumed that the Board wished to take note of the information contained in document GOV/INF/538 regarding adherence to the Vienna Convention.

88. The CHAIRMAN, referring to document GOV/INF/537, said he took it that the Board hoped that sufficient Member States would have submitted comments on document GOV/2306 by the extended deadline of 31 March 1988 for the Secretariat to be able to prepare in due time a meaningful report for the Board, including suggestions as to how to deal further with the matter in question.

5. At the conclusion of its discussion under the heading "Continuation of other work relating to nuclear safety and radiological protection", for which the Board had before it documents GOV/INF/541 and GOV/INF/542, the accepted summing-up by the Chairman was as follows (GOV/OR.687):

143. The CHAIRMAN, summarizing the discussion on sub-item 3(c) of the agenda, said that, with regard to the sharing of nuclear-safety-related information, he took it that the the Board had noted from the information provided in Annex 1 to document GOV/INF/542 the increased efforts being made through the Agency's programmes to promote information exchange, for the purpose of preventing nuclear accidents and mitigating the consequences of any such accident, and to promote information exchange on radiation protection.

144. He concluded that, for the time being, the Board had completed its discussion of the substance of that topic, with the understanding that it might resume its discussion if more precise proposals were made and that, where appropriate, matters relating to that topic would be referred to in discussions of the Agency's programme and budget.

145. On the question of the prohibition of armed attacks on nuclear facilities, the Board had noted the recent letter addressed by the Director General to the Secretary General of the Conference on Disarmament in the light of General Conference resolution GC(XXXI)/RES/475. In that connection, the Board had heard statements from the representative of the Islamic Republic of Iran, the Governor from Iraq, and the Director General regarding the nuclear power plant under construction at Bushehr.

146. With regard to the question of the prevention of terrorist attacks against nuclear installations, the Board, while recognizing that the physical protection of nuclear installations and nuclear material was a national responsibility of States, had taken note of the Director General's intention to promote international co-operation in that area, by convening a group of consultants to advise him on whether any amendments were needed to bring up to date the Agency's guidelines on the physical protection of nuclear material contained in document INFCIRC/225/Rev.1, and if so, to discuss the nature and scope of such amendments. The Board looked forward to being informed of the recommendations of the proposed group of consultants.

147. As to the question of the establishment of a nuclear emergency assistance fund to help developing countries in cases of nuclear accidents, the discussion had shown that there was still no consensus on how such a fund might be set up and operated, or on any alternative mechanisms for providing such assistance. In the circumstances, and in the absence of specific proposals from the sponsors of the original proposal, he took it that the Board wished to return to the question if and when precise proposals were submitted to it.

148. With regard to the formulation of basic safety principles for existing or future reactor types, the Board welcomed the recent finalization by INSAG of a set of basic nuclear safety principles addressed to nuclear power plant designers, regulators and operators, and noted the intention of the Secretariat to publish them shortly. It was hoped that their publication would result in their wide acceptance and application, leading over a period of time to a considerable enhancement of nuclear safety levels.

149. Finally, on the question of the updating of the NUSS Codes of Practice, the Board had noted with satisfaction the progress made, and looked forward to receiving the updated versions for endorsement later in the year, when it might also wish to consider the idea put forward by the Director General and by some Governors that Member States might voluntarily declare their support for and acceptance of the Codes of Practice.

150. The Board might wish to revert to some of the topics discussed under the heading "Continuation of other work relating to nuclear safety and radiological protection" during its discussion of the Agency's programme and budget for 1989/90, when many of the conclusions drawn from its discussion during the current meetings would be reflected.

6. At the conclusion of its discussion under the heading "International Nuclear Safety Advisory Group (INSAG)", for which the Board had before it document GOV/INF/543, the accepted summing-up by the Chairman was as follows (GOV/OR.688):

8. The CHAIRMAN said it was his understanding that the Board approved the Director General's proposal to maintain INSAG, as set out in paragraphs 7 to 9 of document GOV/INF/543, on the understanding that due account would be taken of the observations made during debate on the work and the future orientation of INSAG.

7. The Chairman closed with the following general remarks concerning "Measures to strengthen international co-operation in nuclear safety and radiological protection" (GOV/OR.688):

10. The CHAIRMAN said that consideration of item 3 had been completed, but that the Board would have to revert to the general subject of measures to strengthen international co-operation in nuclear safety and radiological protection, since operative paragraph 2 of resolution GC(XXXI)/RES/473, adopted at the previous regular session of the General Conference, requested the Board to report on that subject to the General Conference at its thirty-second regular session. He therefore suggested that the Secretariat be asked to prepare a draft report to the General Conference, based on the discussions which had just taken place, for the Board to consider in June.

11. Unless there were new, concrete proposals on matters of nuclear safety and radiological protection, the substantive discussions could now be considered completed. Of course, certain aspects of the problem would be discussed again in the context of the programme and budget for 1989-90. Also, if there were any new developments, the Director General would inform the Board in June, either in his traditional statement or in some other appropriate manner.

8. In June 1988, the Board considered "Measures to strengthen international co-operation in nuclear safety and radiological protection" under the following headings:

- (a) Liability for nuclear damage;
- (b) Revision of the NUSS Codes; and
- (c) Nordic Co-operation Agreement on Assistance in Connection with a Nuclear Accident or Radiological Emergency.^{3/}

9. At the conclusion of its discussion under the heading "Liability for nuclear damage", for which the Board had before it documents GOV/INF/550 and 550/Add.1, the accepted summing-up by the Chairman was as follows (GOV/OR.696):

24. The CHAIRMAN said that it was clear from the discussion that there was no consensus at present on the mechanism for further considering, within the Agency, the question of international liability for damage arising from a nuclear accident. In particular, there was no consensus at present for the establishment, by the Director General, of an open-ended working group of governmental experts.

25. Several speakers had indicated that, in their opinion, such a group should not be set up at present - some of them expressing a preference for civil liability regimes as the most appropriate approach and stating that they looked forward to wider adherence to the existing civil liability regimes, soon to be harmonized by the adoption of a Joint Protocol. On the other hand, many speakers had favoured the establishment of a group of governmental experts to identify, as a first step, all questions of principle pertaining to international

^{3/} The Board's discussions in June of "Measures to strengthen international co-operation in nuclear safety and radiological protection" are summarized in GOV/OR.695 and 696. References to nuclear safety matters made in the Director General's opening statement are summarized in paras 15-22 of GOV/OR.691.

liability for nuclear damage, including the scope of a new international legal instrument, and felt that work on that matter should be undertaken even though the International Law Commission was engaged in a study of the wider aspects of State liability.

26. In the light of the divergent views expressed, he considered that the time was not ripe for setting up the proposed working group of governmental experts. That did not mean, of course, that within the Secretariat itself work should not continue on the subject or that the Secretariat could not explore – with interested delegations – what the problems were and what solutions might be sought. Also, he trusted that the Secretariat would – when appropriate – report any significant developments likely to facilitate examination of the matter at a later Board session.

10. At the conclusion of its discussion under the heading "Revision of the NUSS Codes", for which the Board had before it document GOV/2340, the accepted summing-up by the Chairman was as follows (GOV/OR.696):

79. The CHAIRMAN said he assumed that there was general support in the Board for the revised NUSS Codes annexed to document GOV/2340 and that the Board therefore wished to take the action recommended in paragraph 5 of the cover note. It was understood that the discussions and decision of the Board were based on the English version of the revised NUSS Codes.

11. The Board accordingly adopted the revised NUSS Codes contained in Annexes 1 to 5 to document GOV/2340 and authorized the Director General:

- (a) to promulgate them as part of the Agency's Safety Standards to be applied, as appropriate, to operations assisted by the Agency; and
- (b) to recommend to all Member States with a nuclear power programme in place or in preparation to take the Codes into consideration in formulating and implementing national regulations and carrying out actions concerning the safety of nuclear power plants.

12. Under the heading "Nordic Co-operation Agreement on Assistance in Connection with a Nuclear Accident or Radiological Emergency" (see GOV/2354) only one Board member spoke. The summary of his statement is reproduced below, together with the accepted summing-up by the Chairman (GOV/OR.696):

81. Mr. KENNEDY (United States of America) said that, as his delegation had only received document GOV/2354 a few days previously, it would like consideration of that question to be postponed to the Board's meetings in September.

82. The CHAIRMAN said that, if there were no objections, he would assume that the Board accepted the suggestion of the Governor from the United States that consideration of that question be deferred until the Board's next series of meetings.

13. The Board decided that the "GOV/..." and "GOV/INF/..." documents before it during its discussions on the matters covered in this report should be made available on request to delegations to the thirty-second regular session of the General Conference. In addition, it decided that the summary records of its discussions should be made available: accordingly, a collation of the summary records of the relevant Board discussions on 28 September 1987 and in February and June 1988 (which constitutes part of this report to the General Conference) has been prepared.

ANNEX 3

The status of the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency and the Convention on Civil Liability for Nuclear Damage is described in the Attachments to this Annex.

CONVENTION ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT

Signature, ratification, acceptance, approval or accession by States
 up to 10 September 1987

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Afghanistan*	26 Sep 1986		
Australia*	26 Sep 1986		
Austria	26 Sep 1986		
Belgium	26 Sep 1986		
Brazil	26 Sep 1986		
Bulgaria*	26 Sep 1986		
Byelorussian Soviet Socialist Republic*	26 Sep 1986	ratification* deposited: 26 Jan 1987	26 Feb 1987
Canada*	26 Sep 1986		
Chile	26 Sep 1986		
China*	26 Sep 1986		
Costa Rica	26 Sep 1986		
Côte d'Ivoire	26 Sep 1986		
Cuba*	26 Sep 1986		
Czechoslovakia*	26 Sep 1986	signature, 26 Sep 1986	27 Oct 1986
Democratic People's Republic of Korea*	29 Sep 1986		
Denmark	26 Sep 1986	signature, 26 Sep 1986	27 Oct 1986
Egypt	26 Sep 1986		
Finland	26 Sep 1986	deposit of approval on 11 Dec 1986	11 Jan 1987
France*	26 Sep 1986		
German Democratic Republic*	26 Sep 1986	ratification* deposited: 29 Apr 1987	30 May 1987
Germany, Federal Republic of*	26 Sep 1986		
Greece*	26 Sep 1986		
Guatemala	26 Sep 1986		
Holy See	26 Sep 1986		
Hungary*	26 Sep 1986	ratification* deposited: 10 Mar 1987	10 Apr 1987
Iceland	26 Sep 1986		
India*	29 Sep 1986		
Indonesia*	26 Sep 1986		
Iran, Islamic Republic of	26 Sep 1986		
Iraq*	12 Aug 1987		

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Ireland*	26 Sep 1986		
Israel	26 Sep 1986		
Italy*	26 Sep 1986		
Japan	6 Mar 1987	acceptance deposited: 9 Jun 1987	10 Jul 1987
Jordan	2 Oct 1986		
Lebanon	26 Sep 1986		
Liechtenstein	26 Sep 1986		
Luxembourg	29 Sep 1986		
Malaysia*	1 Sep 1987	signature, 1 Sep 1987	2 Oct 1987
Mali	2 Oct 1986		
Mexico	26 Sep 1986		
Monaco	26 Sep 1986		
Mongolia*	8 Jan 1987	ratification* deposited: 11 Jun 1987	12 Jul 1987
Morocco	26 Sep 1986		
Netherlands*	26 Sep 1986		
New Zealand		accession deposited: 11 Mar 1987	11 Apr 1987
Niger	26 Sep 1986		
Nigeria	21 Jan 1987		
Norway	26 Sep 1986	signature, 26 Sep 1986	27 Oct 1986
Panama	26 Sep 1986		
Paraguay	2 Oct 1986		
Poland*	26 Sep 1986		
Portugal	26 Sep 1986		
Senegal	15 Jun 1987		
Sierra Leone	25 Mar 1987		
South Africa	10 Aug 1987	ratification* deposited: 10 Aug 1987	10 Sep 1987
Spain	26 Sep 1986		
Sudan	26 Sep 1986		
Sweden	26 Sep 1986	ratification deposited: 27 Feb 1987	30 Mar 1987
Switzerland	26 Sep 1986		
Syrian Arab Republic	2 Jul 1987		
Tunisia	24 Feb 1987		
Turkey*	26 Sep 1986		
Ukrainian Soviet Socialist Republic*	26 Sep 1986	ratification* deposited: 26 Jan 1987	26 Feb 1987
Union of Soviet Socialist Republics*	26 Sep 1986	ratification* deposited: 23 Dec 1986	24 Jan 1987

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
United Kingdom of Great Britain and Northern Ireland*	26 Sep 1986		
United States of America*	26 Sep 1986		
Yugoslavia	27 May 1987		
Zaire	30 Sep 1986		
Zimbabwe	26 Sep 1986		

Signature, ratification, acceptance, approval or accession by States since 10 September 1987

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Algeria*	24 Sep 1987		
Australia		ratification deposited: 22 Sep 1987	23 Oct 1987
Austria		ratification deposited: 18 Feb 1988	20 Mar 1988
Bangladesh		accession deposited: 7 Jan 1988	7 Feb 1988
Bulgaria		ratification* deposited: 24 Feb 1988	26 Mar 1988
Cameroon	25 Sep 1987		
China		ratification* deposited: 10 Sep 1987	11 Oct 1987
India		ratification* deposited: 28 Jan 1988	28 Feb 1988
Jordan		ratification deposited: 11 Dec 1987	11 Jan 1988
Mexico		ratification deposited: 10 May 1988	10 Jun 1988
Poland		ratification deposited: 24 Mar 1988	24 Apr 1988
Switzerland		ratification deposited: 31 May 1988	1 Jul 1988
Thailand*	25 Sep 1987		
United Arab Emirates		accession* deposited: 2 Oct 1987	2 Nov 1987
Viet Nam		accession* deposited: 29 Sep 1987	30 Oct 1987

30 June 1988

Status: 72 signatories, 4 accessions, 26 parties

* Indicates that a reservation/declaration was deposited upon or following signature/ratification (see INFCIRC/335/Add.1-336/Add.2 and 335/Add.2-336/Add.3).

**CONVENTION ON ASSISTANCE IN THE CASE OF A NUCLEAR ACCIDENT
OR RADIOLOGICAL EMERGENCY**

**Signature, ratification, acceptance, approval or accession by States
up to 10 September 1987**

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Afghanistan*	26 Sep 1986		
Australia*	26 Sep 1986		
Austria	26 Sep 1986		
Belgium	26 Sep 1986		
Brazil	26 Sep 1986		
Bulgaria*	26 Sep 1986		
Byelorussian Soviet Socialist Republic*	26 Sep 1986	ratification* deposited: 26 Jan 1987	26 Feb 1987
Canada*	26 Sep 1986		
Chile	26 Sep 1986		
China*	26 Sep 1986		
Costa Rica	26 Sep 1986		
Côte d'Ivoire	26 Sep 1986		
Cuba*	26 Sep 1986		
Czechoslovakia*	26 Sep 1986		
Democratic People's Republic of Korea*	29 Sep 1986		
Denmark	26 Sep 1986		
Egypt	26 Sep 1986		
Finland	26 Sep 1986		
France*	26 Sep 1986		
German Democratic Republic*	26 Sep 1986	ratification* deposited: 29 Apr 1987	30 May 1987
Germany, Federal Republic of	26 Sep 1986		
Greece*	26 Sep 1986		
Guatemala	26 Sep 1986		
Holy See	26 Sep 1986		
Hungary*	26 Sep 1986	ratification* deposited: 10 Mar 1987	10 Apr 1987
Iceland	26 Sep 1986		
India*	29 Sep 1986		
Indonesia*	26 Sep 1986		
Iran, Islamic Republic of	26 Sep 1986		
Iraq*	12 Aug 1987		

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Ireland*	26 Sep 1986		
Israel	26 Sep 1986		
Italy	26 Sep 1986		
Japan	6 Mar 1987	acceptance* deposited: 9 Jun 1987	10 Jul 1987
Jordan	2 Oct 1986		
Lebanon	26 Sep 1986		
Liechtenstein	26 Sep 1986		
Malaysia*	1 Sep 1987	signature, 1 Sep 1987	2 Oct 1987
Mali	2 Oct 1986		
Mexico	26 Sep 1986		
Monaco	26 Sep 1986		
Mongolia*	8 Jan 1987	ratification* deposited: 11 Jun 1987	12 Jul 1987
Morocco	26 Sep 1986		
Netherlands*	26 Sep 1986		
New Zealand		accession* deposited: 11 Mar 1987	11 Apr 1987
Niger	26 Sep 1986		
Nigeria	21 Jan 1987		
Norway*	26 Sep 1986	signature, 26 Sep 1986	26 Feb 1987
Panama	26 Sep 1986		
Paraguay	2 Oct 1986		
Poland*	26 Sep 1986		
Portugal	26 Sep 1986		
Senegal	15 Jun 1987		
Sierra Leone	25 Mar 1987		
South Africa	10 Aug 1987	ratification* deposited: 10 Aug 1987	10 Sep 1987
Spain	26 Sep 1986		
Sudan	26 Sep 1986		
Sweden	26 Sep 1986		
Switzerland	26 Sep 1986		
Syrian Arab Republic	2 Jul 1987		
Tunisia	24 Feb 1987		
Turkey*	26 Sep 1986		
Ukrainian Soviet Socialist Republic*	26 Sep 1986	ratification* deposited: 26 Jan 1987	26 Feb 1987
Union of Soviet Socialist Republics*	26 Sep 1986	ratification* deposited: 23 Dec 1986	26 Feb 1987
United Kingdom of Great Britain and Northern Ireland*	26 Sep 1986		

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
United States of America*	26 Sep 1986		
Zaire	30 Sep 1986		
Zimbabwe	26 Sep 1986		

Signature, ratification, acceptance, approval or accession by States since 10 September 1987

<u>State</u>	<u>Date of signature</u>	<u>Means and date of expression of consent to be bound</u>	<u>Entry into force</u>
Algeria*	24 Sep 1987	ratification*	
Australia		deposited: 22 Sep 1987	23 Oct 1987
Bangladesh		accession	
		deposited: 7 Jan 1988	7 Feb 1988
Bulgaria		ratification*	
		deposited: 24 Feb 1988	26 Mar 1988
Cameroon	25 Sep 1987		
China		ratification*	
		deposited: 10 Sep 1987	11 Oct 1987
India		ratification*	
		deposited: 28 Jan 1988	28 Feb 1988
Jordan		ratification	
		deposited: 11 Dec 1987	11 Jan 1988
Mexico		ratification	
		deposited: 10 May 1988	10 Jun 1988
Poland		ratification	
		deposited: 24 Mar 1988	24 Apr 1988
Switzerland		ratification	
		deposited: 31 May 1988	1 Jul 1988
Thailand*	25 Sep 1987		
United Arab Emirates		accession*	
		deposited: 2 Oct 1987	2 Nov 1987
Viet Nam		accession*	
		deposited: 29 Sep 1987	30 Oct 1987

30 June 1988

Status: 70 signatories, 4 accessions, 21 parties

* Indicates that a reservation/declaration was deposited upon or following signature/ratification (see INFCIRC/335/Add.1-336/Add.2 and 335/Add.2-336/Add.3).

CONVENTION ON CIVIL LIABILITY FOR NUCLEAR DAMAGE

Signature, ratification or accession by States
up to 30 June 1988

<u>State/Organization</u>	<u>Date of signing</u>	<u>Ratification/Accession</u>
Argentina		ratification: 25 Apr 1967
Bolivia		accession: 10 Apr 1968
Cameroon		accession: 6 Mar 1964
Colombia	21 May 1963	
Cuba		ratification: 25 Oct 1965
Egypt		ratification: 5 Nov 1965
Morocco	30 Nov 1984	
Niger		accession: 24 Jul 1979
Peru		accession: 26 Aug 1980
Philippines		ratification: 15 Nov 1965
Spain	6 Sep 1963	
Trinidad and Tobago		accession: 31 Jan 1966
United Kingdom of Great Britain and Northern Ireland	11 Nov 1964	
Yugoslavia		ratification: 12 Aug 1977

Status: 4 signatories (only), 5 accessions, 10 parties

**SUMMARY RECORDS OF BOARD DISCUSSIONS IN SEPTEMBER 1987
AND FEBRUARY AND JUNE 1988 ON TOPICS COVERED IN THE REPORT
BY THE BOARD AND THE DIRECTOR GENERAL**

September 1987

GOV/OR.685

**MATTERS ARISING FROM THE THIRTY-FIRST (1987) REGULAR SESSION OF THE
GENERAL CONFERENCE**

The CHAIRMAN said that

40. In the resolution on measures to strengthen international co-operation in nuclear safety and radiological protection set out in document GC(XXXI)/831, the Board was requested, inter alia, to continue its activities on nuclear safety and to pursue the initiatives proposed by Member States, and the Director General was invited to transmit to the Board the summary records of discussions on that matter in the Committee of the Whole and plenary meetings. That resolution covered several points which had been discussed in detail in the Board during the past year and on which a large number of documents existed, the most recent being the Board's comprehensive report to the General Conference (document GC(XXXI)/816). The Secretariat should be given some time to assimilate the remarks made during the session of the General Conference and to submit specific ideas based on those comments. Furthermore, it would take some time to issue the summary records of the meetings of the General Conference. He therefore suggested that the Board decide tentatively to take up that matter in February 1988. It would be helpful if the sponsors themselves provided documentation on some of the points covered by the resolution.

41. The General Conference had also adopted several resolutions which did not require any action by the Board but which called on the Director General to take certain steps and to keep the Board informed of progress achieved. Those includedthe resolution set out in document GC(XXXI)/829 concerning the sharing of nuclear-safety-related information and the resolution contained in document GC(XXXI)/832 relating to the protection of nuclear installations against armed attacks.

42. All those resolutions would be brought to the attention of the Board when it was appropriate in the light of progress made by the Secretariat in preparing the necessary background material and of the results of consultations which he would hold, with the assistance of the Vice-Chairmen.

43. In the absence of comments, he would consider that the procedure which he had just proposed for the examination of matters arising from the thirty-first regular session (1987) of the General Conference was acceptable to members of the Board.

44. It was so decided.

2383Y/202Y

February 1988

GOV/OR. 686

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND
RADIOLOGICAL PROTECTION

- (a) ACTIONS RELATING TO THE CONVENTION ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT AND THE CONVENTION ON ASSISTANCE IN THE CASE OF A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY, INCLUDING THE RELIABILITY OF THE IAEA COMMUNICATION SYSTEM (GOV/INF/540 and Corr.1, GOV/INF/546, GOV/2332)
- (b) LIABILITY FOR NUCLEAR DAMAGE (GOV/2326, GOV/INF/537 and 538)
- (c) CONTINUATION OF OTHER WORK RELATING TO NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (GOV/INF/541 and 542)
- (d) THE INTERNATIONAL NUCLEAR SAFETY ADVISORY GROUP (INSAG) (GOV/INF/543)

60. The CHAIRMAN said that, as agreed, the meeting would first take up item 3, "Measures to strengthen international co-operation in nuclear safety and radiological protection". That item had appeared on the agenda of almost all the Board's meetings since the special session of the General Conference held in 1986. A report by the Board and the Director General on the subject had been submitted to the General Conference the previous year in document GC(XXXI)/816. After the report had been considered by the Committee of the Whole the General Conference had adopted a number of resolutions, the most comprehensive of which was resolution GC(XXXI)/RES/473. In that resolution, the General Conference, after requesting the Board to continue to pursue initiatives proposed by Member States in the area of nuclear safety and radiological protection, had further requested it to involve all interested Member States in the work which it would be undertaking pursuant to the resolution. Thus, a representative of any Member State which was not a Member of the Board who expressed a wish to participate in the discussion on the item would, with the Board's approval, be given the floor under Rule 50 of the Provisional Rules of Procedure.

61. For the sake of convenience, item 3 had been broken down into four sub-items. It would be easiest to take those sub-items in order, after a short introduction by himself, but any speaker who preferred to deal with more than one sub-item at the same time would be perfectly free to do so.

62. With regard to item 3(a), entitled "Actions relating to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, including the reliability of the IAEA communication system", the Secretariat had issued document GOV/INF/540 and Corr.1, which gave details of arrangements for the use of WMO's Global Telecommunication System in support of the Early Notification Convention. The document updated information already submitted to the Board on further steps taken pursuant to its decisions.

63. In addition, the Board had before it an explanatory memorandum entitled "The reliability of the IAEA communication system" (document GOV/2332), which had been submitted by Sweden following the false rumour about a nuclear accident on 3 February 1988. Consideration of that memorandum could usefully be supplemented by a reading of document GOV/INF/546, in which the Secretariat had endeavoured to trace the origins of the rumour.

64. Mr. MALM (Sweden) said that, as indicated by the Director General in his introductory statement, the rumour which had spread throughout the world on 3 February 1988 about a serious nuclear accident was fortunately without foundation and had been denied several hours later in authoritative statements by the Agency and the national authorities concerned. It was nevertheless a matter of great concern that such a rumour should have had time to spread, to be taken up by news agencies all over the world, and to arouse intense alarm among the public, before being denied by the Agency and by the Government involved. That was why Sweden had requested that an item entitled "The reliability of the IAEA communication system" be placed on the agenda for the current Board meetings.

65. It had been suggested that one possible origin of the rumour might have been the testing of the new communication system to be used in connection with the Early Notification Convention. His Government appreciated the clarification regarding the operation of that system given in document GOV/INF/546 and was convinced that the testing was not in fact the origin of the rumour. It was clear from the report of the Swedish National Institute of Radiation Protection that contacts made by a local news agency with a representative of the Swedish Government a few hours after the rumour had first appeared abroad had led to a misunderstanding which, for a short time before the official denial, had created the impression that the rumour had been confirmed. The Swedish authorities were naturally most anxious that such a misunderstanding should not be repeated in the future.

66. Sweden shared the view put forward by the Secretariat in document GOV/INF/546 that it was now necessary to consider the question whether the communication system needed to be supplemented by mechanisms that would also verify the non-occurrence of a nuclear accident. He therefore suggested that the Board should request the Director General to submit a report on the matter at its June meetings.

67. The CHAIRMAN said he understood that the Governor from Brazil wished to give details of the radiological accident which had taken place the previous year in the Brazilian town of Goiania.

68. Mr. ALVES (Brazil), after informing the Board that a seminar about the lessons to be learnt from the radiological accident at Goiania, to which all Member States and the Secretariat were invited, would be held in April in Rio de Janeiro, said he would like to give some details of the accident, taken from the report shortly to be transmitted to the Agency by Brazil's Permanent Mission.

69. In September 1987, the handling of a caesium-137 source (1375 Ci) which had been removed inadvertently and without authorization from a radiotherapy unit in the town of Goiania had led to a radiological accident which was all the more serious in that 16 days had elapsed between the events which had caused the contamination of persons, houses and public places and the day on which the competent authorities had eventually been notified, and had been able to take appropriate measures. In addition, the caesium had been in the form of highly soluble chloride, which had made it easier for careless handling to lead to contamination of sites and of persons directly or indirectly involved in activities carried out in the area.

70. It was on 29 September, at 3 p.m., that the National Nuclear Energy Commission (CNEN) had been informed of the existence of radioactive contamination in some areas, and of individuals there showing symptoms of acute radiation sickness. In the following 24 hours, the CNEN had taken steps to bring medical aid to the victims, to monitor the population of the neighbourhood and of other areas, to reconstruct as accurately as possible the circumstances of the accident, and to evaluate its impact on the environment.

71. On the basis of information collected from persons directly involved in the accident, corroborated by expert medical opinion and by radiometric measurements taken in the contaminated areas, procedures had been set in motion to assist the victims and to conduct decontamination operations in the affected areas. The priority concern had been to aid the victims and to neutralize the critical pathways so as to prevent the exposure or contamination of others.

72. The dispersion of the caesium-137 was due to the high solubility of the product, direct handling of the source, or of parts of it, the sale of contaminated parts or scraps, professional or personal contact with contaminated persons, and weather conditions (wind and rain). Seven main foci of contamination had been identified.

73. The radiometric measurements carried out in the contaminated areas had been followed by prompt isolation. Eighteen days after the break-up of the source, the maximum exposure rate measured had been 110 R/h at 1 m. In 20 homes near the main foci of contamination, and in 22 others where relatives and friends of the contaminated persons, or those who had had contacts with them, lived, residual levels of radiation were found. The first 20 houses had had to be evacuated pending complete decontamination of the nearest principal focus. In their case, the maximum exposure rate measured had been 300 mR/h at 1 m; in the case of the 22 other houses, the average rate had been 0.1 mR/h.

74. Owing to the various dispersion factors already mentioned, a number of public places had shown a radiation level equivalent to the average registered for the 22 houses he had referred to. That evaluation had been confirmed by airborne radiometry (sensitivity of 100 mR/h) and by subsequent operations designed to detect exposure levels in excess of natural background radiation.

75. The delay in the detection of the accident had meant that all banknotes in circulation in the area had had to be checked for possible contamination. Out of 10 240 000 notes monitored, only 68 had shown detectable levels of radiation. In addition, it had been found that handling of such banknotes did not lead to contamination.

76. The circumstances of the accident, and the contamination of the sites had made environmental monitoring essential. It had led to the following conclusions: the ground water had not been contaminated; there had been no contamination of drinking water; contamination of the whole area monitored was confined to the topmost 50 cm of soil; contamination found in water courses was confined to sediments, the concentrations varying from 100 to 800 Bq/kg. Trees had to be pruned or cut down and vegetables uprooted within a radius of 50 m around the main foci of contamination.

77. In giving assistance to the public, the following annual reference levels (RL) had been applied: recording from 0.5 mSv to 1.5 mSv; investigation from 1.5 mSv to 2.0 mSv; and decontamination above 2.0 mSv. Wherever a level over 3.0 mSv was suspected, the persons concerned had been removed from their homes or work place. Between 30 September and the completion of the decontamination operations, CNEN had been able to establish with certainty that no one had been exposed to doses higher than 3.0 mSv.

78. In regard to the exposure of staff carrying out the operation, the limits adopted, in view of the emergency situation, had been the following: daily limit: 1.5 mSv; weekly limit: 5.0 mSv; monthly limit: 10.0 mSv; quarterly limit: 30.0 mSv. Of the 720 people engaged in the decontamination operation, only 2.37% (17) had been exposed to doses above 10 mSv, whereas 81.2% (585) had received less than 2.0 mSv. The highest exposure had been 15.8 mSv. Measurements of internal contamination in the decontamination teams had indicated that fewer than 18.5% of those concerned had absorbed measurable activity; the maximum value detected had been equivalent to a dose commitment over 50 years which was negligible (3 mSv).

79. The decontamination operations had been effectively concluded on 21 December (i.e. 82 days after the accident had been reported). Those operations had consisted chiefly in decontamination of affected areas; removal of contaminated layers of soil, to a depth determined by appropriate measurements on a case-by-case basis; demolition of houses and shacks with a high level of overall contamination, and removal of the debris; elimination of other critical pathway vectors contributing to the spread of the contamination; cutting down of trees and removal of other obstacles which might complicate operations; isolation and packing of waste in metal boxes and drums; and, lastly, transport of the waste to a temporary storage depot. All those operations had been carried out in accordance with strict radiation protection and environmental monitoring criteria.

80. The excavations had been filled in with soil of the same type, or with a mixture of stones and sand, or covered in concrete. Over 3000 m³ of waste had been removed and transported to a storage site intended for the

receipt of containers, in Abadia de Goias, some 20 kilometres away. A mathematical model had been developed to calculate the amount of caesium-137 recovered and stored in the form of waste: preliminary results suggested that the activity of the source was between 1202 ± 261 Ci and 1266 ± 274 Ci. Soil measurements indicated that residual soil contamination was less than 1 Ci.

81. The time that had elapsed between removal of the source and discovery of the radiological accident had increased the external exposure and the internal and external contamination of the population. Of 112 800 persons monitored and registered between 30 September and 21 December, only 249 showed exposure rates indicating internal and external contamination. Out of that total, 120 were contaminated only on clothing and shoes, while 129 showed signs of internal or external contamination.

82. Measurements taken with a whole-body counter installed by CNEN in Goiania, together with urine analyses, showed that for 45 persons the dose equivalent commitment over 70 years was below 0.005 Sv, for 42 from 0.005 to 0.05 Sv, for 33 from 0.05 to 1 Sv, for four from 1 to 2 Sv, for two from 2 to 3 Sv, for one from 3 to 4 Sv, for another from 5 to 6 Sv, and for yet another, 8 Sv.

83. The seriousness of the patients' condition had been determined on the basis of their contacts with the intact or broken-up source or with persons who had handled it, their clinical history and the results of laboratory tests and external and internal monitoring. Patients had been classified according to the extent to which the haematopoietic system had been affected, the severity of radiodermatitis, and the intensity of internal and external contamination. Twenty persons had been hospitalized, four of whom had died between the fourth and fifth week following irradiation. Thirty other persons had been placed under observation for decontamination in a temporary clinic. In addition, 50 people had been covered by a medical follow-up programme. Medical care during that critical period had pursued the dual aim of overcoming the critical stage of acute radiation syndrome, characterized by phases of aplasia or hypoplasia of the bone marrow, and accelerating the elimination of caesium. Currently, only one patient was still hospitalized; all the others were under close surveillance, but their condition was not such as to require hospitalization.

84. The 82 days of continuous work at the Goiania site had been equivalent to over 130 000 man-days. In addition to the 244 CNEN staff members, 125 experts from FURANS, NUCLEBRAS, the Army School of Specialization (EIE), the Navy and the Air Force, as well as 351 workers from the private sector and Goias State officials had taken part in the operation.

85. Brazil, as a signatory of the Early Notification Convention had notified the Agency of the accident as soon as the authorities became aware of it. In addition, under the Emergency Assistance Convention, it had made contact, either direct or via the Agency, with the Governments of Argentina, France, the Federal Republic of Germany, the Soviet Union and the United States. The Agency had provided technical assistance equivalent to

18 man-days; bilateral assistance equivalent to 82 man-days had been supplied, and contributions from volunteer medical and technical experts had been equivalent to 77 man-days.

86. The Brazilian Government had sent regular reports to the Agency summarizing the measures being taken. The assistance operation had required a considerable amount of detection and radiation protection equipment, over 600 devices in all, some of which had been donated or lent by France, the Federal Republic of Germany, Hungary, Israel, Japan, the Netherlands, the United Kingdom and the Agency.

87. A final radiometric survey of all the contaminated areas made immediately after completion of the decontamination operation had shown that dose equivalents tended to be below 300 mrem/year for those living within a 50 m radius. For areas outside a 100 m radius, dose equivalents were comparable to natural background radiation.

88. The lessons to be drawn from the Goiania accident had been the following: the consequences of a radiological accident caused by the breakup of a radioactive source were likely to be more serious if a long period of time elapsed between the occurrence of the breakup and its discovery; the physical and chemical characteristics of the source were important factors; a proper information system to prevent possible panic was essential; a mobile first aid unit should be constantly at the ready; full and up-to-date records of manpower and equipment resources should be available; customs regulations should be adapted to facilitate the import and re-export of additional supplies and equipment; calibration methods and instruments had proved inadequate, in regard both to the specific circumstances of the accident and to an environment characterized by high humidity and temperatures; finally, the effectiveness of international co-operation depended on the infrastructure of the country concerned.

89. He concluded by showing a series of slides, with commentary, illustrating the accident at Goiania and the measures that had been taken to deal with it.

90. The CHAIRMAN thanked the Governor from Brazil for his detailed description of the tragic accident at Goiania, its causes and consequences, and the measures taken to deal with it. He was sure that all Governors would wish to convey both to him and to the Brazilian people the Board's sympathy with the victims of the accident.

91. Mr. KAZUHARA (Japan) said he had been particularly interested in the introductory part of the Director General's statement, which had stressed the importance of public acceptance and understanding for the promotion of the peaceful uses of nuclear energy. In that context, he would like to touch briefly on recent developments relating to the rumour of a nuclear accident spread by the press, and notably the publication by the weekly "Der Spiegel" of an article which sought to undermine confidence in the Agency's safeguards system. Both the rumour and the article had proved to be without foundation.

He was grateful to the Director General and the Deputy Director General for having acted so promptly to restore public confidence both in nuclear energy and in the Agency. They had no cause to reproach themselves for the four-hour delay which had elapsed before the necessary measures were taken. However, the incident had demonstrated in a striking way how quickly such reports travelled and how they were amplified by interpretation or by imagination. The press did not usually display such a reaction where good news was concerned. Such news reports, whether or not published deliberately, obstructed and often seriously endangered efforts to promote and develop the peaceful uses of nuclear energy.

92. A study of the events and of the lessons to be learnt from them would help the Agency to strengthen public confidence in its work. It might well pay more attention to over-reactions on the part of public opinion, for example by improving the drafting and distribution of safeguards implementation reports, without of course reducing their statistical and technical accuracy, and taking care to maintain the transparency of inspection activities for Governors. The Agency might also consider a more active advocacy of the peaceful uses of atomic energy. Because its authority was based on scientific and technical knowledge and on wide experience, it was in a position to make its voice heard more distinctly on such matters. He was pleased to note that the Director General had already broached most of those questions in his introductory statement.

93. With regard to the various issues covered by item 3 of the agenda, his delegation had noted with satisfaction the steps taken to implement the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, in particular the arrangements made by the Agency for use of WMO's Global Telecommunication System (GTS), as well as the establishment of links between national points of contact and GTS entry points. Japan had ratified those two Conventions in June 1987, and had informed the Agency what its points of contact were. In view of the important objectives of those instruments, his delegation hoped that more States would ratify them.

94. As to the continuation of other work relating to nuclear safety and radiological protection, and notably the sharing of nuclear-safety-related information, his delegation believed that it was important to maintain close co-operation and co-ordination with other bodies, such as the OECD Nuclear Energy Agency and WHO, in order to avoid duplication of work and to promote effective exchanges of information. Where protection of nuclear installations against armed attacks was concerned, the Japanese Government had long been in favour of the conclusion of an agreement banning such attacks; it therefore supported the efforts being made by the Agency, within the framework of its statutory responsibilities, to co-operate with the competent organs in preparing such an agreement. He approved of the review and revision of NUSS documents, but stressed that it was primarily for each State to establish nuclear safety standards, and that the role of the NUSS documents was only to assist States in improving those standards. Finally, INSAG had undoubtedly

played an important role in the field of international co-operation in nuclear safety, and his delegation supported the Secretariat's proposals for the continuation of the Group's work over the next three years.

95. Mr. USTYUGOV (Union of Soviet Socialist Republics) thanked the Director General for his comprehensive and useful presentation, which would assist delegations in focusing their attention on the most important aspects of the Agency's activities.

96. In connection with item 3(a), document GOV/INF/540 indicated that the Agency had virtually completed its testing of WMO's Global Telecommunication System (GTS) for use in support of the Early Notification Convention. It was now up to the Secretariat to fix the details of that arrangement on the basis of the tests that had been carried out. The early experiments had uncovered a number of positive elements, but also certain deficiencies in the GTS: for example, one should not be overly optimistic about the speed with which news of an accident could be communicated to national organizations and contact points. During the tests, the messages had been anticipated and the time of transmission had been known. In the event of an accident, however, the notification message might be drowned out by meteorological information. The GTS also did not guard against the anonymous transmission of erroneous or false information. The Secretariat still had to look into a number of specific matters relating to the use of the GTS in support of accident notification. The Soviet delegation believed that other means of communication, such as the telex, should be used for the first warnings of an accident.

97. The Soviet Union attached great importance to early notification of accidents and the provision of international assistance, not only within the framework of the two Conventions, but also on a multilateral and bilateral basis. Indeed, it had concluded agreements with all the Nordic countries on early notification of accidents and the exchange of information on nuclear power plants.

98. The Soviet delegation expressed sincere condolences to Brazil in connection with the accident at Goiania. The necessary assistance had been provided rapidly and efficiently, both by the Agency and by States, in response to what had been the first request for assistance under the Emergency Assistance Convention.

99. The Soviet delegation endorsed the Secretariat's efforts to develop a Technical Operations Manual for emergency notification and assistance. The Agency had expressed the intention of inviting States to indicate what resources they would be prepared to furnish in case of emergencies. His delegation was proud to announce that, the day before, the Secretariat had received a note from the Soviet Government indicating that, for humanitarian reasons, and in order to apply the Emergency Assistance Convention in spirit and in letter, the Soviet Union was prepared to consider all requests for equipment and expert services from States parties to that Convention; the

note listed seven categories of supplies which the Soviet Union could offer including specialized equipment, transport vehicles, personal shieldings, medical equipment, dosimeters and radiological monitoring instruments.

100. With regard to the question raised by Sweden concerning the false rumour of an accident which had been so effectively disseminated on 3 February 1988, his delegation wished to draw attention to an important aspect of the problem of liability for nuclear damage covered under agenda item 3(b), namely, the irresponsible spreading of rumours by the mass media, not entirely without help from the authorities. The Soviet delegation reaffirmed the position it had adopted at the first special session of the General Conference in 1986 concerning the establishment of an international regime for the safe development of nuclear energy: the material or moral damage caused by accidents or rumours of accidents had not been given sufficient attention, and the absence of international regulations in that field opened the door to attempts to spread disinformation, exacerbate tensions and foment mistrust among States. It was time to put an end to that undesirable situation.

101. Mr. TETENYI (Hungary) said his country had been one of the first to sign the Early Notification Convention and the Emergency Assistance Convention, both of which it had been applying since 10 April 1987. Hungary had established a link between its National Atomic Energy Commission and the Hungarian entry point of WMO's GTS, in conformity with the Director General's request, and it had participated successfully in the recent tests of that notification system. The Agency's efforts to set up a truly fast and reliable information system were to be commended, but the misunderstandings and misinterpretations to which its tests could give rise showed that the exercise must be mounted with the greatest care. There was no reason to suppose that the GTS tests had been the source of the false rumour of an accident; the Secretariat's note (GOV/INF/546) was entirely convincing on that subject. Yet the fact remained that the Agency was not protected against such incidents or their consequences, and the false rumour had shown how sensitive public opinion was in such matters. The Agency bore tremendous responsibility in that domain and the Secretariat must mobilize all its resources to stop unfounded rumours. In that connection, he was extremely interested in the suggestion contained in paragraph 4 of document GOV/INF/546 and referred to by the Director General in his statement, concerning mechanisms that could be used to verify the non-occurrence of an accident.

102. His delegation looked forward to the publication of the Emergency Notification and Assistance Technical Operations Manual (ENATOM). The notification procedures used during the GTS testing were provisional and covered only part of the problem. It would be desirable, for instance, to develop a standardized format for notification, specifying the radiation units to be used, because expressing the same quantities in different units could easily lead to misunderstandings. It was also necessary to decide whether the GTS would be used to transmit all information, including first warnings, or only follow-up data on the accidents. The establishment of national communication links depended on that decision, so action by the Agency on the matter was urgently needed.

103. Another field where the Agency should speed up its activity was in gathering information on experts, equipment and material that could be made available in the event of a nuclear accident or radiological emergency. The guidelines already published on mutual emergency assistance for radiation accidents were outdated and not relevant to accidents in nuclear power plants.

104. In conclusion, he drew attention to the outstanding role played by the Agency in drawing up the two Conventions. The Agency's functions in connection with their implementation were extremely important, and establishing the preconditions for them should be given high priority in its programme.

105. Mr. GUYER (Argentina) pointed out that the recent rumours about another nuclear accident which the press had promptly snapped up, thereby sowing alarm in many countries, had fortunately not been attributable to defects in the communication system set up by the Agency pursuant to the Early Notification Convention; however, they could serve as a clear and dramatic indication of the high level of public sensitivity on the issue. The Board must therefore give its utmost attention to finalizing the system's operating procedures, and in particular, to defining as precisely as possible the threshold above which the system should be used, and the point beyond which it should cease to operate. Those concerns, expressed by the Italian delegation at the thirtieth session of the General Conference, were as relevant today as ever. It was essential to reach agreement at the international level on parameters to indicate the radioactive levels above which, and the conditions in which, a nuclear accident that might result in an international transboundary release that could be of radiological safety significance for another State should trigger the use of the communication system. It was also necessary to agree on parameters to determine the point as of which it was no longer necessary to transmit accident-related information through the Agency's system. Allaying any doubts on that score would strengthen the system's credibility and minimize the danger that abuse of the system might result in unjustified alerts that would inevitably deepen the public's suspicion of nuclear activities, with disastrous consequences for such activities throughout the world.

106. Mr. KENNEDY (United States of America) said his delegation had carefully reviewed the information provided in document GOV/INF/540 on the actions the Secretariat had taken to implement the two Conventions, and continued to oppose any initiatives which would have the effect of opening another round of discussion on those carefully negotiated instruments. The United States commended the Agency on its unceasing efforts to play its role under those important international instruments to the best of its ability and, in particular, on the assistance it had provided to Brazil after the tragic accident at Goiania.

107. His delegation supported the Agency's efforts to make WMO's GTS work as a medium for the effective transmission of certain data in connection with the Early Notification Convention, but felt that the system should not not

serve as the primary or unique mode for notification. The United States intended to continue actively to support the Agency in the testing of the GTS and in the development of additional means of communication.

108. With regard to the issue raised by the Governor from Sweden concerning the false rumour of an accident on 3 February 1988, his Government agreed that the information provided in document GOV/INF/546 did not suggest that the Agency's testing of the GTS system had been the cause of that unfortunate rumour; indeed, the United States believed that the Agency had taken all reasonable care to ensure that the messages communicated through the GTS were not misinterpreted or misused. He urged the Secretariat to continue to take all necessary precautions to prevent any confusion about the testing or use of the GTS.

109. Mr. HIREMATH (India) thanked the Governor from Brazil for his presentation on the accident at Goiania and for the useful lessons he had drawn from the Brazilian experience. The incident showed that the two Conventions covered by agenda item 3(a) had already begun to operate effectively.

110. Like other countries, India had been greatly concerned by the false rumour propagated on 3 February 1988 about a nuclear accident in the Soviet Union. Memories of Chernobyl were still fresh in everyone's minds, and India was naturally exercised by the thought that another serious accident could shake the confidence of the public all over the world in the ability of nuclear power to meet energy requirements, particularly those of developing countries. Accordingly, his country had been greatly relieved by the timely action taken by the Agency to ascertain the true facts and to communicate its findings that there had been no accident in any Member State or any significant change in the level of radioactivity in the European environment.

111. He had read with considerable interest the detailed note by the Secretariat (GOV/INF/546) chronicling the events that had resulted in the false rumour's dissemination. He wished to commend the Secretariat once again for its determined and rapid response, in close co-ordination with the nuclear authorities of several countries. While it was quite clear that the Agency's testing of the GTS on 20 and 27 January had in no way lent itself to misunderstanding or misinterpretation, the fact remained that someone, deliberately or otherwise, had used those tests to spread false information. In view of the Chernobyl accident, the choice of the Soviet Union as the site of the imaginary accident seemed to indicate a measure of calculated mischief. It was also intriguing that the rumour seemed to have started circulating in a stock exchange, and that one of its first effects had been to make the prices of food grain on the other side of the Atlantic shoot up. Could it be that the rumour had been the result of market forces operating in a fiercely competitive world where financial gain at whatever cost could be an incentive for such manoeuvres? It was also disturbing to note that a news agency had considered it appropriate to flash cables around the world with reports of an accident having actually occurred, on the sole basis of what had

apparently been a rather unclear telephone conversation. It was lamentable that so-called investigative journalism, carried out in a slipshod manner by an overly enthusiastic news agency, could result in the spread of misinformation which might have incalculable consequences.

112. India had carefully examined the procedure used by the Agency in conducting its tests of the GTS for the purpose of devising efficient ways of implementing the Early Notification Convention, and had found no connection between the tests and the rumour in February. While there might be scope for improvement in the light of future experience, his delegation saw no reason at present to change the detailed procedures negotiated between the Agency and WMO. Still, the Agency might well consider how to verify quickly whether a reported accident had actually occurred.

113. Mr. PANDEV (Bulgaria) said that his delegation had studied the measures described in document GOV/INF/540 relating to the Conventions on Early Notification and on Emergency Assistance, both of which Bulgaria had ratified. The technical arrangements for emergency notification and assistance that had been developed by the Agency would meet a need on the part of Member States. The mechanism that was to be set up and the type of information that was to be transmitted would enhance the accuracy, speed and effectiveness of contacts among States in accident situations. It was extremely important to gather information on the equipment and expert services that would be offered under such circumstances.

114. His delegation welcomed the way in which the Agency had responded to the Goiania accident by providing Brazil with expert services and dosimeters and by co-ordinating the aid offered by Member States. He thanked the Governor from Brazil for his presentation, which had illustrated how useful the Agency's assistance had been.

115. Regarding the reliability of the Agency's communication system, a subject covered in the memorandum submitted by Sweden (GOV/2332) and in document GOV/INF/546, he did not think the system needed to be supplemented by new machinery designed to verify whether an accident had occurred: it would be sufficient to ensure, during testing of the system, that the information transmitted could not be distorted or used to fuel speculation or to harm States in any way.

116. Mr. SCHAAD (Federal Republic of Germany) thanked the Director General for his thorough and very useful statement.

117. Turning to agenda item 3(a), and referring to document GOV/INF/540, he noted with satisfaction the arrangements made between the Agency and WMO for the use of the GTS and the establishment of communication links between the Agency's Headquarters and the GTS's Vienna Regional Telecommunication Hub. He hoped that arrangements for links between national contact points and GTS entry points would be pursued.

118. He had taken note of the impressive list of signatories to the Conventions on Early Notification and on Emergency Assistance. In his country, the ratification procedure for both Conventions was well advanced, and they were already being applied on the basis of the declaration made by the Federal Republic of Germany at the special session of the General Conference in 1986.

119. He was grateful to the Secretariat for having published document GOV/INF/546, in which it attempted to clarify how the false rumour of 3 February 1988 about a nuclear accident might have arisen as a result of a test message transmitted through the GTS. It was very difficult to guard against false allegations or rumours, particularly when nuclear energy was concerned, but everything must be done to preclude the recurrence of such an incident - without, however, instituting overly complicated measures that would make the communication system difficult to handle in the case of a real alert.

120. He thanked the Governor from Brazil for his thorough presentation on the tragic radiological accident at Goiania in October 1987, which had clearly illustrated the need to exercise strict control over nuclear material, wherever it might be. The Federal Republic of Germany, which had attempted to assist Brazil with all the means at its disposal, wished to extend to that country its condolences. It had noted with interest the Brazilian Government's intention to organize a seminar on the radiological accident in Rio de Janeiro in April 1988, in which all Member States and the Agency's Secretariat would be invited to participate.

121. Mr. AHIMSA (Indonesia), speaking on item 3 as a whole, commended the Secretariat on its activities in the context of international co-operation in nuclear safety and radiological protection. He noted with satisfaction the progress that had been achieved in connection with the implementation of the Conventions on Early Notification and on Emergency Assistance. Indonesia, as one of the first signatories, had completed a detailed study of the two Conventions, including their implementation in the region, and its legislative authorities had embarked on the final stage in the process of ratification.

122. His delegation welcomed the link established between Agency Headquarters and the GTS. At the present early stage, the system might not yet function perfectly. The incident in early February had, nevertheless, served a purpose by enabling the Agency to deny the rumour within hours. If it should prove, however, that the rumour had arisen from an international leak in the system, a suitable technical solution should be sought to avoid the recurrence of such incidents.

123. His delegation had noted with interest the finalization of the Joint Protocol (reproduced in document GOV/2326) relating to the application of the Vienna Convention on Civil Liability for Nuclear Damage and the Paris Convention on Third Party Liability in the Field of Nuclear Energy. The Indonesian authorities were currently studying the texts of the Vienna

Convention and the Joint Protocol, but his delegation could already accept the recommendations in paragraphs 7 and 8 of document GOV/2326, on the understanding that it would give its views on the question during the conference which was to be held on the matter later in the year.

124. His delegation wished to thank the International Nuclear Safety Advisory Group (INSAG) for its work and the expertise it had brought to bear on it. It supported the Director General's conclusions and suggestions to the effect that INSAG should be maintained as an advisory group for another three-year period, on the understanding that it would place more emphasis on the prevention of nuclear accidents in the future, and that it would give thought also to other problems in the field of nuclear safety and radiation protection, such as those summarized in documents GOV/INF/540 and 542, and in particular to means of providing detailed information to the population on the risks from radioactive releases and fallout. In that connection, he thanked the Governor from Brazil for his detailed presentation on the radiological accident at Goiania, and called on all Member States to ensure that irradiated materials were handled safely so as to prevent such an accident from recurring.

125. Mr. BRADY ROCHE (Chile) thanked the Director General for the comprehensive statement he had made to the Board and assured him that his delegation would review it carefully.

126. He welcomed the fact that aid – a summary of which could be found in document GOV/INF/540 – had been provided promptly to Brazil under the Convention on Emergency Assistance. The practical efficacy of that instrument, which would undoubtedly contribute to strengthening the confidence of States concerning the effects of nuclear accidents, had now been proven. He thanked the Governor from Brazil for the information he had provided on the accident at Goiania, concerning which the Chilean Government expressed its deepest regrets.

127. He congratulated the Director General on the action he had taken to conclude arrangements between the Agency and WMO for the use of the GTS in support of the Early Notification Convention. In that connection the Emergency Notification and Assistance Technical Operations Manual (ENATOM), which was soon to be completed and published, would be extremely useful. However, in view of the serious consequences of the possible diversion of information transmitted by the GTS, the security of the system should be reviewed, and measures that could be taken to heighten its reliability should be explored. Any breaches in the confidentiality of the information would spread panic in world public opinion; moreover, the information could be used by those that acquired it in an arbitrary and unpredictable fashion. His delegation therefore called on the Secretariat to produce a detailed report covering the weak points of the system and proposing means of eliminating them.

128. Mr. ERRERA (France) began by thanking the Director General for his opening statement, which undeniably called for serious consideration. He also thanked the Governor from Brazil for his comprehensive report on the radiological accident in Goiania.

129. He congratulated the Secretariat on its valuable work in connection with the Conventions on Early Notification and on Emergency Assistance, and, more particularly on the arrangements agreed by the Agency and WMO for the use of the GTS in support of the Early Notification Convention. He indicated that the French authorities had taken the necessary measures to establish a link between the French Ministry of Foreign Affairs, the point of contact, and the GTS entry point. The links used during the transmission tests of 10 and 18 February 1988 had worked perfectly. With regard to the communication system itself, it should combine several requirements: it should permit rapid notification of an accident, it should be global in extent, and it should be reliable. It should, in fact, make it possible both to alert governments — in order that they, in turn, could inform the population of the possible effects of an accident which might have occurred within their country — and to avoid the spreading of false rumours. It was clear that the public health aspect and the psychological or political aspect were indissolubly linked. Whatever precautions were taken, or efforts made to educate the public, rumour travelled more quickly and had more impact and appeal than rational explanation or, simply, truth. It was therefore essential to limit risks as far as possible, and to study seriously the various technical means of achieving the objective in view, with regard both to the initial announcement of an accident and to the subsequent transmission of technical information, the uncontrolled spreading of which might encourage misinterpretation, or even partisan exploitation. It therefore seemed important to go more deeply into the different aspects of the problem, though, of course, neither the system envisaged nor the Agency's response were being called into question. The French delegation was most willing to assist the Agency in that area, as it had done over the drawing up of the Early Notification and Emergency Assistance Conventions.

130. Mr. CHIKELU (Nigeria) thanked the Director General for his exhaustive and highly informative opening statement, which would certainly aid Governors in their work.

131. He welcomed the arrangements agreed by the Agency and WMO on the use of the GTS in support of the Early Notification Convention and the link established between Agency Headquarters and the GTS's Vienna Regional Telecommunication Hub. He approved of the Secretariat's intention to prepare and circulate an Emergency Notification and Assistance Technical Operations Manual. He thanked the Director General and the Secretariat, and also the WMO, for the progress made in those areas, which constituted an important step in international co-operation on nuclear safety and radiation protection.

132. He also commended the work of INSAG and supported the plans for its future activities.

133. Turning to the issue of liability for nuclear damage, he welcomed the Joint Protocol relating to the application of the Vienna and Paris Conventions, and expressed support for it. Where State liability was concerned, a convention should be drawn up to fill the legal vacuum existing in that area. A State should be in a position, in its own right or on behalf

of its citizens, to claim damages when its citizens suffered as a result of a nuclear accident. Moreover, there did not exist any convention on the important issue of nuclear damage to the environment. He therefore urged the Agency to explore the possibility of drawing up a convention in that area. He acknowledged the efforts of the International Law Commission with regard to the matter, but thought that the Agency, in view of its expertise in the field, should play a leading role in that endeavour.

134. Lastly, he thanked the Governor from Brazil for his report on the radiological accident in Goiania, extended sympathy to Brazil, and expressed gratitude to all Member States which had given assistance.

135. Mr. KELSO (Australia) welcomed the entry into force of the Early Notification Convention and the Emergency Assistance Convention, and noted that it now remained for the international community to see that they were properly implemented. He had been interested to read about the measures described in document GOV/INF/540, which had acquired particular significance in the light of the report of the Governor from Brazil on the radiological accident in Goiania; he wished to comment on two of those measures.

136. Firstly, with regard to the GTS, he understood that it was not intended for initial notification of an accident, but for subsequent transfer of data on the accident, and that it was also not to be the only means of transferring such data. That interpretation should alleviate the concerns of certain Governors. Australia had completed work on its national link with the GTS and had participated in the four tests of the system: those tests had demonstrated that the GTS could be used for rapid transmission of information to the very farthest corners of the globe and at all times of the day and night. He urged all other signatories of the Early Notification Convention to complete national linkages with the GTS as soon as possible in order to ensure that the objectives of the Convention were fully realized.

137. Secondly, with reference to section 6 of document GOV/INF/540, he appealed to States Parties to the Early Notification Convention and the Emergency Assistance Convention which had not yet designated their points of contact to do so and to notify the Agency without delay.

138. Australia's views on sub-item 3(c) of the agenda were already known and he would limit himself to brief comments on the matters listed in documents GOV/INF/541 and 542. The summary of the Agency's work on the sharing of nuclear-safety-related information, in Annex 1 to document GOV/INF/542 was excellent: such activities were worth while, particularly in view of the concerns which had arisen over the Chernobyl accident, and their scope should suffice to allay the fears of some Member States that not enough was being done by the Agency in that area. He also noted with satisfaction the progress reported in Annexes 4 (Formulation of basic safety principles for existing and future reactor types) and 5 (Review and revision of NUSS documents) of that document, those being activities to which Australia had given particular support, and the results of which it awaited with interest.

139. Finally, with regard to sub-item 3(d) of the agenda, he stressed the useful role played by INSAG and expressed support for the continuation of its mandate, as proposed in paragraph 7 of document GOV/INF/543. He also endorsed the proposals in paragraphs 8 and 9 of that document, namely that INSAG's expertise in radiation protection and nuclear safety assessment be strengthened, and that INSAG be invited to advise on possible lines of development for specific components of the Agency's nuclear safety programme.

140. Mr. MORPHET (United Kingdom) thanked the Director General for his detailed opening statement, and the Governor from Brazil for his report on the radiological accident in Goiania and the measures taken to deal with it.

141. He congratulated the Secretariat on the measures taken to implement the Early Notification and Emergency Assistance Conventions, described in document GOV/INF/540. Like any new system, the communication system recently installed was capable of improvement, and further tests should be performed. In addition, it would be particularly useful to publish, perhaps as a priority, users' instructions – not users' instructions for the GTS which already existed, but for the use of the system by the Agency, as a complement to the planned Emergency Notification and Assistance Technical Operations Manual. Such a move would help avoid operating problems and errors, and the lessons learned from the incident of the false rumour of 3 February 1988 should be taken into account. It was certainly not easy to create an advance alert system, but the history of information communication in general, and not only of nuclear information, had shown that the greater the delay between the appearance of a rumour and its denial, the worse the situation became. That was why the regulations governing communication of nuclear information in the United Kingdom required that the operator of a nuclear power station inform the public immediately of any incident, however minor, and that a record of operating incidents in nuclear power stations be published once a fortnight. Such a flow of information had the advantage of calming over-reactions on the part of public opinion and the media of all kinds, since there was evidently no way round learning to live with incidents which occurred all the time in all areas of activity, including the nuclear industry.

142. Mr. LEE (Republic of Korea) welcomed the arrangements between the Agency and WMO for the use of the GTS in support of the Early Notification Convention and the establishment of a link between Agency Headquarters and the GTS's Vienna Regional Telecommunications Hub. He urged the Agency to continue its efforts to draw up and distribute an Emergency Notification and Assistance Technical Operations Manual. His country was in the process of taking the necessary steps to establish a link with the GTS. Moreover, it had initiated the necessary legislative actions to adhere to the Early Notification and Emergency Assistance Conventions.

143. He commended the joint IAEA/NEA working group for their efforts in drawing up a Joint Protocol relating to the application of the Vienna Convention and the Paris Convention (GOV/2326), and expressed unreserved support for that Protocol. He also agreed in principle with the action recommended in paragraphs 7 and 8 of that document.

144. In conclusion, he thanked the Director General for his opening statement, and the Governor from Brazil for his report on the radiological accident at Goiania.

145. Mr. YBAÑEZ (Spain) thanked the Agency for its efforts to implement the Early Notification Convention and the Emergency Assistance Convention, which were especially worthy of note considering the complexity of the problem. The arrangements agreed by the Agency and WMO on the use of the GTS in support of the Early Notification Convention provided a satisfactory means of transmitting information between the Agency and Member States. It was, however, necessary to define without delay, and in precise terms, the nature of the information to be transmitted by that route and the data presentation and codes to be used, and also to determine who would have access to the system. It was important, on the one hand, to avoid at all costs a repetition of the incident of the false rumour of 3 February 1988 and, to that end, to create the conditions necessary for quashing rumours by undermining their credibility, and on the other hand, to ensure that the transmission of information did not pose any interpretation difficulties, either linguistically or technically. Accordingly, he commended the Agency Secretariat on responding to the rumour of 3 February by rapidly disseminating accurate and truthful information, instead of attempting to suppress the rumour.

146. In that context, he wished to announce that the Spanish Nuclear Safety Council had been designated as the national competent authority and point of contact for the Early Notification Convention. The Council had made arrangements with the National Meteorological Institute to transmit the necessary information. Moreover, the Spanish Government had initiated the ratification procedure for the Early Notification and Emergency Assistance Conventions.

147. The work on drawing up an Emergency Notification and Assistance Technical Operations Manual was of great importance. The publication of the Manual, and its subsequent updating, should allow improvisation to be eliminated in taking decisions and the best resources available to be used in specific situations. The Manual would also permit simulation exercises to be carried out on an international level, since they had proved useful at a national level.

148. He commended the international solidarity shown over the unfortunate radiological accident in Goiania. All the same, it would be useful to analyse the nature of the international assistance, and its effectiveness, in order to identify omissions which might exist and to find solutions for them. It had to be pointed out that incidents of that type could be of much more frequent occurrence than catastrophes like Chernobyl. Therefore, one had to be ready to meet them with the most co-ordinated and effective action possible. The report of the Governor from Brazil had been very useful in that respect. The international seminar planned for April 1988 in Rio de Janeiro to draw lessons from the radiological accident in Goiania was most opportune, and the Spanish authorities would not fail to send experts.

149. He reserved the right to speak later on sub-items 3(b), 3(c) and 3(d) of the agenda.

150. Mr. ZANGGER (Switzerland) thanked the Director General for his most exhaustive opening statement and the Governor from Brazil for his report on the tragic accident in Goiania, and offered his condolences to the victims.

151. The Swiss authorities welcomed the progress made by the Agency on implementing the Early Notification and Emergency Assistance Conventions, as described in document GOV/INF/540. The ratification procedure for the two Conventions was under way in his country, which had been applying the Early Notification Convention since the previous summer in accordance with its Article 13.

152. In that connection a problem had arisen which had been touched upon by the Governor from Argentina and which had already been discussed during the negotiation of the Early Notification Convention and during the special session of the General Conference in 1986, namely that of defining a nuclear accident within the meaning of Article 1 of the Early Notification Convention: that Article left the determination of the notification threshold to the discretion of the State on whose territory the accident had occurred, since it provided for the notification of any accident "which has resulted or may result in an international transboundary release that could be of radiological safety significance for another State".

153. For the purpose of implementing the Convention, Switzerland had adopted a set of statutory instructions for the National Alert Centre. Under those instructions, if an accident occurred which had resulted or might result in a release of radioactivity from the installation, and which had set national emergency measures in action, either in whole or in part, the National Alert Centre was to inform directly Switzerland's four neighbouring countries (the Federal Republic of Germany, France, Italy and Austria), as well as the Agency. The latter was responsible for transmitting information to more distant countries. Such an approach was considered the only one for defining a nuclear accident notification threshold with sufficient precision.

154. It was necessary that the exact nature of an international transboundary release be defined sufficiently precisely and in good time. Otherwise, in order to counter rumours which might arise, such as those which had recently caused concern to the Swedish Government, the Agency would clearly have to be empowered to ask each Party to the Convention, or even each Member of the Agency, whether an accident had occurred which had brought emergency measures into play, either in whole or in part. Switzerland was in favour of a notification threshold as close to the minimum as was practical. It was not seeking a renegotiation of the Early Notification Convention, but an effective interpretation of Article 1 thereof, in the interests both of radiation protection and of protection against journalists.

155. Mr. AL-KITAL (Iraq) thanked the Director General for his opening statement and the Governor from Brazil for the information he had provided on the tragic accident in Goiania, and offered his sincere condolences. He commended the Agency for its good work in supplying the assistance requested in that particular case.

156. Referring to document GOV/INF/540 and, more especially, to the Emergency Notification and Assistance Technical Operations Manual, he expressed interest in the information which the Manual would contain on the experts, equipment and materials which might be made available in the event of a nuclear accident or radiological emergency.

157. Mr. CASTRO DIAZ-BALART (Cuba) thanked the Director General for his opening statement, which his delegation would examine with care.

158. The Cuban delegation had studied in detail the Secretariat's report on the Agency's activities in relation to the Conventions adopted in 1986, and it had noted the concrete measures which had been taken to guarantee the operation of the early notification system for accidents. Moreover, he commended the measures taken by the Agency, and the assistance provided to Brazil, in connection with the tragic radiological accident in Goiania. He also thanked the Governor from Brazil for the detailed and copious information he had presented.

159. Subsequent to the false rumour of 3 February relating to a nuclear accident which was supposed to have taken place in the USSR, the Secretariat had proposed that the Board consider complementing the communication system at present being installed by mechanisms which would allow verification in such cases of whether an accident had really taken place. His delegation was not convinced of the need for such mechanisms, but thought it would be necessary to guarantee the efficiency of the system by a minimum of periodic tests to avoid unnecessary complications. He acknowledged the positive measures taken in the matter by the Secretariat which had responded in an appropriate manner to the false rumour.

160. The CHAIRMAN took it that the Board noted, generally with satisfaction, the progress made in arranging for the use of WMO's Global Telecommunication System (GTS) in support of the Early Notification Convention, and that it concluded, with satisfaction, from document GOV/INF/546, entitled "The false rumour of 3 February 1988 about a nuclear accident", that no link had been established between the rumour and the Agency's communication systems.

161. As to the suggestions made, questions asked and doubts expressed regarding the various communication channels used by the Agency, and in particular the GTS, and as to the proposals made by the Governors from Sweden and Chile regarding a Secretariat study prior to the meetings in June, the Director General would no doubt consider those matters and report to the Board in due course.

162. He also took it that the Board appreciated the information provided on the assistance rendered through the Agency following the radiological accident which had occurred in October 1987 in the city of Goiania and noted the steps being taken within the Secretariat to enhance its capacity to respond swiftly to emergencies.

163. He assumed, furthermore, that the Board wished to take note of the Brazilian authorities' actions in response to the accident and of the steps they were taking to exchange information on it and learn lessons therefrom.

164. In addition, he took it that the Board hoped that those States which had not yet become parties to the two Conventions adopted at the special session of the General Conference in 1986 would do so soon, and that further progress would be made in establishing contact points for purposes of the Early Notification Convention.

165. Lastly, he assumed that the Board wished to take note of the information contained in document GOV/INF/540.

166. It was so agreed.

GOV/OR.687

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (continued)

- (b) LIABILITY FOR NUCLEAR DAMAGE (GOV/2326, GOV/INF/537 and 538)
- (c) CONTINUATION OF OTHER WORK RELATING TO NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (GOV/INF/541 and 542)
- (d) THE INTERNATIONAL NUCLEAR SAFETY ADVISORY GROUP (INSAG) (GOV/INF/543)

1. The CHAIRMAN drew the Board's attention to document GOV/2326 concerning the work of a joint IAEA/NEA group which had met the previous October and had adopted, by consensus, a Joint Protocol relating to the application of the Vienna Convention on Civil Liability for Nuclear Damage and the Paris Convention on Third Party Liability in the Field of Nuclear Energy; the group had recommended that the Joint Protocol be adopted at a conference to be held in conjunction with the 1988 regular session of the General Conference. The text of the Protocol was annexed to document GOV/2326, with an explanatory note prepared by the Secretariats of the Agency and NEA. The recommended action by the Board would be found in paragraphs 7 and 8 of the document.

2. He had been informed that the Secretariat intended to invite all members of the Agency and of NEA to attend the proposed conference, on the understanding that the resulting Protocol would be open for signature only by the signatories of one or other of the Conventions in question.

3. With regard to the Vienna Convention on Civil Liability for Nuclear Damage, a request had been made in the Board the previous February that the Secretariat inquire into the reasons why the Vienna Convention had not received wider adherence, and the results of that inquiry were contained in document GOV/INF/538.

4. A further question covered by sub-item (b) was that of the international liability of a State for damage arising from a nuclear accident. Pursuant to a request made in the Board the previous June, the Director General had, on 7 July, invited Member States to comment on document GOV/2306, which dealt with that question. Member States had originally been requested to submit their comments by 1 November 1987, but, as stated in document GOV/INF/537, the Director General had extended the time limit to 31 March 1988, because only a few Member States had replied by 1 November. Accordingly, it seemed advisable to defer consideration of that subject until more comments had been received and analysed by the Secretariat and to concentrate on documents GOV/2326 and GOV/INF/538.

5. Mr. GOMAA (Egypt), referring to the Convention on Early Notification, commended the Director General on his efforts to establish communications between Member States, in particular through the Global Telecommunication System (GTS), and expressed support for the preparation by the Secretariat of the Emergency Notification and Assistance Technical Operations Manual (ENATOM). As to the false rumour of a nuclear accident which had arisen recently, Egypt considered that the Secretariat should put forward proposals on how such failures of communication could be avoided in future.

6. Paragraph 4 of document GOV/INF/546 suggested that mechanisms for verifying the non-occurrence of an accident might be needed; clearly, the Agency could not undertake such verification by itself, but would require full co-operation from Member States in that endeavour. On the other hand, the efficiency of the Agency's response to Brazil's request for assistance in connection with the Goiania incident had been gratifying, as the Governor from Brazil had made clear in his statement during the previous meeting, and the number of signatories of the Convention alone indicated the importance that Member States attached to it.

7. Turning to the question of liability for nuclear damage, he said that his country had taken part in the joint IAEA/NEA group which had drafted the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention and considered that its adoption would constitute an important step forward which would extend the benefits of the Conventions in terms of co-operation and exchange amongst the signatories. It would also, he hoped, encourage more States to adhere to the Vienna Convention than the ten

which had already done so. Since the draft Protocol related closely to the two Conventions and could therefore be signed only by parties to them, it would be of particular importance for those States. For others, its value would depend on their appreciation of the role it would play in upholding liability and he trusted it would encourage many to adhere to one of the Conventions. As a party to the Vienna Convention, Egypt approved of the idea of connecting the two Conventions by means of the Joint Protocol, and he urged the Board to endorse the draft Protocol and to take the action recommended in paragraphs 7 and 8 of document GOV/2326.

8. Regarding the letter sent to Member States inviting comments on international liability and on the reasons why only a limited number of States had adhered to the Vienna Convention, he appealed to States to reply in greater numbers so that the Secretariat could undertake a full evaluation of the issues involved and propose steps to consolidate the situation with respect to civil and international liability.

9. As to the sharing of nuclear--safety--related information, Annex 1 to document GOV/INF/542, which dealt with measures taken to implement General Conference resolution GC(XXXI)/RES/474, concentrated on the Agency's role in organizing the exchange of information through research activities, the collection of data on accident analysis techniques and other forms of support for activities designed to strengthen nuclear safety, but did not provide for the improvement of channels for the exchange of information, especially that relating to nuclear safety, between States supplying nuclear equipment and material and States receiving such equipment and material.

10. With regard to Annexes 2 and 3 concerning the prohibition of armed attacks on nuclear facilities and the prevention of terrorist actions against nuclear installations, his country had on more than one occasion stressed the importance of the Agency's role in those areas and hoped that the Secretariat would be able to present a full report on those issues to the Board in June 1988.

11. Finally, he had no objection to extending the mandate of INSAG in the light of the Director General's comments on the valuable role it had played; however, in reconstituting INSAG, it would be appropriate to increase the number of members drawn from developing countries.

12. Mr. BRADY ROCHE (Chile) commended the IAEA/NEA working group on drawing up the Joint Protocol, which should improve the current situation regarding liability for damage arising from a nuclear accident and should also encourage more States to adhere to one of the Conventions.

13. However, the Paris and Vienna Conventions dealt with the problem only under civil law, limiting themselves to the liability of individuals or juridical persons for damage resulting in loss of life or for damage to the property of individuals, but excluding the wider issue of the international liability of States.

14. The term "nuclear damage" as defined in the Vienna and Paris Conventions, covered damage to property and people, but did not include liability for damage to the environment or for possible genetic damage.

15. According to current information only 15 countries had submitted comments on document GOV/2306. He appealed to Member States to collaborate in the matter so that an effective document based on a wider range of views could be presented to the Board in June.

16. With reference to the application of intervention dose levels and derived intervention levels in the event of a major nuclear accident, he agreed, in principle, with the view stated in paragraph 8 of the Attachment to document INFCIRC/344 that it was difficult to determine universally applicable derived intervention levels owing to the wide variation in the parameters involved; however, he thought it would be feasible, as a first step, to establish such levels for specific groups of countries or regions. To that end, regional or sub-regional programmes similar to that being implemented in Latin America under the ARCAL programme should be set up to define derived intervention levels on the basis of guidelines and criteria supplied by the Agency.

17. Lastly, he wished to express full support for the proposal contained in Appendix 8 to Annex 2 of document GC(XXXI)/816 concerning the establishment of an emergency assistance fund to help developing countries in the event of a nuclear accident. Some States had perhaps misinterpreted that proposal. Such an assistance fund would provide immediate support in the event of a nuclear or radiological accident in a developing country and would help to limit the consequences thereof. The proposal appeared especially important in view of the recent accidents which had occurred, fortunately with only minor radiological consequences.

18. Mr. ERNER (Turkey), referring to the interesting report presented by the Governor from Brazil at the previous meeting, expressed sympathy over the events described and pointed out that some consolation could be had from the knowledge that the lessons to be drawn from such a calamity would be of benefit to humanity.

19. Turkey had become a party to the Paris Convention soon after it had been opened for signature, had ratified it in 1961, and was also a party to its additional Protocols of 1964 and 1982; it had not considered becoming a party to the Vienna Convention because both Conventions served the same purpose, namely to protect the victims of a nuclear accident, and because Turkey was already party to the first one.

20. The Paris Convention had more signatories than the Vienna Convention, and the countries party to it possessed advanced nuclear technology representing a potential nuclear safety risk. The Paris Convention and its additional Protocols covered more nuclear installations, approximately 33% of the world total, compared with 0.86% for the Vienna Convention. His country shared the view of some of the non-signatories of the Vienna Convention that

the "pollutor pays" principle was not sufficiently reflected therein. No formal relationship had been established between the two Conventions despite the identical principles of both; that, and the conflict of law which might result from their simultaneous application, had prompted States to seek a solution.

21. The draft Joint Protocol created a link between the two Conventions which would enhance the protection of victims of a nuclear accident, by extending the liability regime established under each Convention to the parties to the other Convention, and it would prevent conflicts of law arising from the simultaneous application of two different Conventions in the event of a nuclear accident involving parties to either of them. The Joint Protocol thus filled a gap in international law.

22. Since Article II of the draft Joint Protocol made it clear that the operator of a nuclear installation would be liable for damage to persons or property in the territory of a party to the other Convention only if the latter was also a party to the Joint Protocol, it should serve to increase the number of parties to both Conventions. For those reasons, he welcomed the Joint Protocol and urged the Board to endorse it.

23. With regard to the formulation of basic safety principles for existing and future reactor types, he commended the Secretariat on its efforts. Similarly, INSAG deserved praise for its work, and he hoped the Secretariat would maintain it.

24. Mr. SAVIC (Yugoslavia) considered that the work on international liability for damage arising from a nuclear accident was very important. The activities described in document GOV/2326 should be carried out simultaneously with others relating to the peaceful use of nuclear energy. In principle, his country supported all actions aimed at solving existing legal problems, and as a party to the Vienna Convention, it was willing to endorse the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention and to take the action recommended in paragraphs 7 and 8 of document GOV/2326.

25. Finally, he expressed sympathy to the Brazilian Government over the accident in Goiania.

26. Mr. SCHAAD (Federal Republic of Germany) congratulated the IAEA and NEA experts on their work within the joint working group on nuclear liability in June 1987. The Joint Protocol they had drafted offered the opportunity for creating a world-wide nuclear liability system. His country was willing to endorse the Joint Protocol at a one-day conference to be held in conjunction with the next session of the General Conference and hoped that it would be acceptable to many States and that those which had not yet adhered to the Paris or Vienna Conventions would do so in the near future, as that would improve the situation regarding adequate financial coverage in the event of a nuclear accident.

27. Mr. AL-KITAL (Iraq) recalled that his delegation had always supported efforts to improve safety standards in nuclear installations, because the benefits of nuclear energy for development could not be realized without safety.

28. However, the issue should not be restricted to nuclear accidents. It was important also to improve information channels to facilitate the exchange of nuclear-safety-related information between suppliers and users. The NUSS documents, too, were very valuable, particularly for countries having nuclear power programmes or intending to start up such programmes. It was gratifying to see that NUSS criteria had been incorporated into the national legislation of many countries, and he welcomed the efforts to review the NUSS Codes of Practice and issue updated versions in time for the Board's meetings in June. He also supported the efforts to formulate basic safety principles for existing and future reactor types described in Annex 4 to document GOV/INF/542.

29. Iraq agreed with the Director General's comments on INSAG, and attached great importance to that body's continued existence.

30. The protection of nuclear installations, especially those under safeguards, was a safety issue of the highest importance. The radiological consequences to man and the environment of an accident caused by design or operational error were in no way different from those that might be caused by terrorist or other armed attack. The Agency must concern itself with such matters therefore, and they must be discussed in the context of nuclear safety. That was why Iraq had on many previous occasions proposed that a convention be drawn up to protect peaceful nuclear installations from terrorist and armed attack, especially those under safeguards.

31. With regard to the proposed mission by Agency experts to the Bushehr facility in Iran, he could not see why Bushehr should have been singled out for such a mission since the war between Iran and Iraq had claimed many victims and caused the ruin of many nuclear industrial installations and other buildings. Security Council resolution 598 indicated that many efforts were being deployed to stop the war, but no mention was made in it of attempts to assess war damage in Bushehr or anywhere else. Such an assessment did not therefore seem to fall within the Agency's mandate.

32. On 19 February 1985[1], the Director General had told the Board that, after careful consideration, he had concluded that verification of reported war damage and losses in respect of a plant still under construction which did not contain any radioactive material and was not as yet subject to safeguards was not an appropriate matter for the Director General of the Agency to deal with. The situation had not changed since that time, and so it was unclear to him why the Agency should depart from its earlier position and become involved in the war. Such a mission might, on face value, appear to come under the heading of the peaceful use of nuclear energy, but in fact it might help to prolong an already excessively lengthy war.

[1] See document GOV/OR.631, para. 12.

33. Mr. SEMENOV (Union of Soviet Socialist Republics) said that, although his country was not a party to either the Vienna or the Paris Convention and had drawn the Board's attention more than once to the limitations of those Conventions, it did not object to the Board's approving the Joint Protocol, nor to the holding of a conference during the forthcoming session of the General Conference to adopt the Joint Protocol and open it for signature.

34. Indeed, the entry into force of the Joint Protocol should, to a certain extent, facilitate the broadening and development of existing legal provisions pertaining to States' nuclear activities.

35. In addition, it was urgently necessary to draw up an international legal document covering all important aspects of both civil and State liability for nuclear damage, taking due note of the views of a significant number of countries on the problem of creating a universal regime of international liability in the nuclear area. For that reason, he supported the recommendation made in paragraph 5(a) of document GOV/2306 that the Board request the Director General to convene a working group of experts to consider in greater detail the possible content of such a legal document.

36. Mr. FITZGERALD (Ireland) said that his Government would shortly be considering the question of joining a convention on civil liability and welcomed the Joint Protocol as it cleared up certain ambiguities and extended the scope of coverage. His delegation therefore supported the adoption of the Protocol.

37. The drawbacks of the Conventions were, firstly, lack of cover through insufficient participation of countries with nuclear installations, secondly, limitations on the amount of compensation, and thirdly, a potential financial risk for parties to the Paris Convention and the Brussels Supplementary Convention. The Director General had been right in suggesting that the time was ripe to continue with further work on improving the Conventions, and the Board should take the matter up again at its June meetings.

38. With regard to sub-items 3(c) and (d) of the agenda, his delegation welcomed the reports on other work being done in safety-related areas contained in document GOV/INF/542. Safety and the sharing of experience and knowledge must always remain a priority, and standards must be continually reviewed and updated. He also supported the Director General's request that INSAG be maintained.

39. As to the proposal made on an earlier occasion by Ireland that the experience of regulatory authorities in countries with nuclear installations be reviewed, he suggested that the Board return to that matter after the symposium on the subject planned for November 1988.

40. In conclusion, he wished to convey the sympathy of the Irish Government for the victims of the Goiania accident on which the Governor from Brazil had reported.

41. Mr. PANDEV (Bulgaria) considered that the joint IAEA/NEA working group of experts had done useful and essential work in co-ordinating the implementation of the Vienna and Paris Conventions and preparing and adopting the text of the Joint Protocol relating to the application of those Conventions. He had no objection to the convening of a conference to adopt the Protocol and to open it for signature.

42. The number of parties to the Vienna Convention was small for various reasons, and the information presented by the Secretariat in document GOV/INF/538 seemed to indicate that it was unlikely to increase, even after the adoption of the Joint Protocol.

43. His Government attached great importance to the establishment of a new international regime of State liability for damage arising from a nuclear accident that would be acceptable to a majority of countries. That was a complex and difficult task on which a start should be made without undue delay. He therefore agreed with the proposal in paragraph 5(a) of document GOV/2306 to convene an open-ended working group of governmental experts to study the issues involved in international liability for damage arising from a nuclear accident and the scope of a new international legal document in that field.

44. His delegation shared the Director General's high opinion of the work of INSAG and its contribution to international co-operation in the field of nuclear safety. It wished to draw attention in particular to the summary report prepared by INSAG on the causes and consequences of the Chernobyl accident and to its recommendations regarding the directions to be taken by the nuclear safety programme in the future. Nuclear safety was of crucial importance for the successful development of nuclear power, and the recommendations of highly competent professional specialists in that area would be very useful for the Agency's work.

45. His delegation accordingly felt that the maintenance of INSAG as a consultative body was justified and supported the Director General's proposal to that effect.

46. Mr. ZANGGER (Switzerland) expressed his delegation's satisfaction with the results achieved by the joint working group. The Joint Protocol was an essential step towards the harmonization of civil liability, and so the Swiss delegation was prepared to take the action recommended in paragraphs 7 and 8 of document GOV/2326.

47. Mr. GUYER (Argentina) noted that his country, as a party to the Vienna Convention and a promoter of its adoption by other countries, had taken part in the drafting of the Protocol, the need for which had become obvious as soon as both Conventions had been adopted and had entered into force.

48. Harmonizing not only legal principles, but also the understanding of concepts, between delegations from countries having different legal systems, and reaching a consensus on a viable text was no small achievement, and his

delegation – which had chaired the Agency's Standing Committee on Civil Liability for Nuclear Damage – considered the text of the Protocol to represent a prudent solution.

49. In addition to the practical aim of promoting the development of nuclear energy whilst maintaining a balance between the interests of individuals and those of States and the nuclear industry, the two Conventions had the important function of ensuring that the State accepted liability for possible victims. A similar idea had been reflected in a ruling by the Legal Section of the Treasury of Argentina, dated 5 September 1984, which had defined the State as an ethical person par excellence which must act not simply within juridical restraints, but also with a view to equity and its underlying principles.

50. In the Vienna Convention, because of its global nature, mechanisms had not been set up ensuring reciprocity between States parties in the event of major accidents, as was the case in the Paris Convention. The possibility of having a common fund or mechanisms similar to those provided by the Paris Convention had been carefully considered by various countries, including Argentina. In the future, regional agreements might be concluded in line with the current inter-State mechanisms of the Paris Convention.

51. The Joint Protocol seemed to be a substantial step towards legal uniformity on a world scale which sat well with the international nature of the atomic issue, and with the increasing acceptance of the principle of international State liability, supported by Argentina, to give individuals of whatever origin or domicile the ability to claim rights in various forums, free of limitations which would render action impracticable.

52. The simplicity of the solution proposed in the Protocol should be noted, though there might, doubtless, be reservations and qualifications concerning the disparate levels of liability between the two systems. As far as the Vienna Convention was concerned, it should be pointed out that the lower limit of US \$5 million laid down under Article V in relation to the gold standard represented at least twelve times that amount in 1988 dollars and was therefore not unreasonably low.

53. In the present context, the term "liability" should, from a strictly legal point of view, be interpreted as "obligation to compensate", in line with the notion that, in a well-constituted society, there should be assured compensation for any loss suffered accidentally by an individual or group of individuals. That "obligation to compensate" might be improved in the future under the Conventions, but undoubtedly the present system, as harmonized by the proposed Joint Protocol, would represent progress and an additional contribution within the nuclear area to the establishment of an effective legal framework to protect the rights of individuals and strengthen international co-operation.

54. However, the competent authorities of Argentina were still analysing the proposed text of the Protocol in depth and would communicate their decision on its acceptance in due course.

55. During its brief existence so far, INSAG had certainly performed very useful work, particularly in connection with the Chernobyl accident, which had shown the need for further extension of INSAG's expertise by bringing together experts from the fields of radiation protection and nuclear safety assessment. That would be even more necessary were INSAG to give advice in future on specific aspects of the nuclear safety programme, in which case it would also be essential to define its scope in relation to that of the Scientific Advisory Committee (SAC), which had in the past provided advice in that area. Subject to those reservations, he agreed with the conclusions reached by the Director General in document GOV/INF/543.

56. Mr. KENNEDY (United States of America) noted that many countries clearly wished the Agency to continue to examine questions relating to liability and compensation for nuclear accidents having transboundary consequences.

57. While not a party to either Convention, his country had generally supported the work on harmonizing the Paris and Vienna Conventions. The Joint Protocol did not, strictly speaking, achieve harmonization of the substance of the two Conventions, but it did provide a means of reconciling their two regimes. For that reason, his country would support its adoption and agree to the convening of a joint IAEA/NEA conference as recommended in paragraph 8 of document GOV/2326.

58. In contrast, the elaboration of a new multilateral instrument on State liability would be a highly complex task. The desirability and feasibility of such work, particularly at a time of pressing demands on scarce Agency resources, was not at all clear. Negotiating a new and broader liability convention would pose extensive legal and practical problems. Such a convention would have to be acceptable to both developed and developing countries, accommodate substantial differences between national and legal systems and economic structures, and include a mutually agreeable formula for dealing with the traditional immunities of sovereign States. The difficulties encountered even among western industrialized countries with relatively compatible legal systems strongly suggested that a broader convention might not be attainable, at least in the short term. Narrower bilateral and regional approaches thus appeared more likely to lead to practical and realistic arrangements.

59. Furthermore, as was indicated in document GOV/2306, the International Law Commission (ILC) had been working on the question of State liability for many years. It seemed appropriate to let the ILC's work progress further before developing principles for State/international liability covering only the narrow area of nuclear accidents – especially since the ILC's work had revealed substantial differences in point of view and had not as yet led, for example, to the identification of any specific framework for an international liability regime. Such a broad regime would be relevant to the multilateral convention proposed; thus, work on such a convention might actually be premature, and should not go forward for the time being.

60. Document GOV/2306, insofar as it called for an examination of the scope of such an instrument, presupposed both desirability and feasibility, neither of which applied in the present case, in his delegation's view. The mandate of any working group, especially an open-ended one, should therefore not include a directive to consider any such instrument, even in part. On the other hand, the question whether there was a specific need for expanding international liability in the nuclear area or whether the existing regimes and Conventions could simply be modified to fill the gaps was a question that did seem worthy of study.

61. He fully agreed with the views of the Director General on INSAG and with the proposal that it continue to exist.

62. Mr. MORPHET (United Kingdom) said the Paris and Vienna Conventions had been based firmly on the principle that the operator of a nuclear installation was liable for any damage caused by nuclear accidents. The Brussels Supplementary Convention had gone a stage further by recognizing the need for government support in cases where substantial damage had occurred, in order to ensure that those affected received adequate compensation, and by enunciating the commitment of Member States to support one another in the event of a nuclear accident leading to substantial damage claims. The United Kingdom had always supported both principle and substance of the Vienna and Paris Conventions: it believed them to represent the most appropriate mechanism for ensuring that, in the unlikely event of a nuclear accident, people who were injured or whose property was damaged could claim adequate compensation in a speedy and humane manner without having to undertake lengthy and expensive legal proceedings. In order for the Conventions to operate effectively, however, they should have universal coverage. The United Kingdom would like to see all third-party nuclear liability questions covered by a single convention, but the existing Conventions, though based on the same principles, had sufficient differences of detail to make that unlikely. Agency and NEA experts had recognized that dilemma for years, but recent events had given added impetus to their work. The Joint Protocol was a considerable achievement and represented a major step forward in removing the existing territorial boundaries of the Conventions. He hoped that countries which were not a party to either Convention would recognize the efforts being made by States parties to ensure the widest possible coverage, and would be encouraged to join. The benefits of the Conventions applied equally to all States, whether or not they had nuclear power programmes. The United Kingdom firmly supported the recommendations that the Board should endorse the Joint Protocol and that a one-day conference should be organized in conjunction with the thirty-second regular session of the General Conference for the purpose of adopting the Protocol and opening it for signature.

63. Mr. KATTAN (Saudi Arabia) said that nuclear energy was an important source of electrical power and, as such, should be rendered safe, stable and economical. Supplier and recipient countries must co-operate to reduce the dangers involved so as to maximize nuclear safety. His delegation welcomed the steps that had been taken to formulate internationally binding

instruments whereby nuclear power plants and installations, their operators, and the countries that owned them would assume full liability for damage resulting from nuclear accidents. Those instruments would ensure that responsibility for nuclear safety and radiation protection was shared equally by both the producers and the beneficiaries of nuclear technology.

64. Nuclear safety measures accordingly required constructive international co-operation. The exchange of information among countries which operated nuclear facilities must be promoted in order to build up confidence in the use of nuclear power for peaceful purposes. Member States should work together to implement the resolutions adopted on the subject at the thirty-first regular session of the General Conference. Nuclear safety could also be furthered by measures to prevent armed attacks and terrorist actions against nuclear facilities. The international community must recognize the extent of the damage that could result from such events. The matter should be treated as an ethical one, and relevant legal instruments should be formulated. He expressed appreciation to the Director General for doing everything possible to promote the elaboration of an international convention to prohibit armed attacks and terrorist actions against nuclear installations, especially those placed under the safeguards system.

65. His Government approved of the Secretariat's work on the review and evaluation of the NUSS documents and its efforts to increase their efficiency and develop criteria to assist nuclear regulatory agencies. He agreed with the Director General's views on the excellent achievements of INSAG and endorsed the extension of its mandate.

66. Mr. LASERNA-PINZON (Colombia) said his country supported all activities that helped to make nuclear energy more widely acceptable. He thanked the Governor from Brazil for his elucidation of the social and technical context of the recent nuclear accident. Such information would help to promote the formulation of criteria for dealing with such events.

67. As the Director General had pointed out, the topic of nuclear energy was even more controversial today than it had been ten years ago, and its critics and proponents both believed they were serving the interests of the human race. In the face of the controversy, it was necessary to find the golden mean in conformity with the aspirations of the entire world's population. For countries like Colombia, which had not yet embarked upon the use of nuclear power, the task now was to grasp the varied aspects of that extremely complex issue: meetings like the present one were helpful in that regard. Objectivity and intelligence should prevail in debates on the subject, yet some groups presented views that were intended not only to warn of the dangers of using nuclear energy, but also to discredit the Agency. His delegation fully supported all measures adopted with a view to keeping the debate on equitable, objective and productive terms. The delicate mission of achieving that goal had been placed in the hands of prudent, competent and committed individuals, and his country would do whatever it could to contribute to the success of their Promethean task.

68. Mr. YBAÑEZ (Spain) said his Government's interest in the drafting of the Joint Protocol had been manifested in the participation of Spanish experts in that process. The Spanish Government believed that the Joint Protocol would be effective only if the Paris and Vienna Conventions were improved by expansion of the benefits accorded to victims. The possibility that, in the event of a nuclear accident, the two instruments might be applied to a State that was party to both must be precluded. The Conventions must be harmonized so as to eliminate any hierarchy among States parties thereto and to do away with any loopholes created by lack of symmetry between their provisions. For those reasons, his delegation supported the recommendations in paragraphs 7 and 8 of document GOV//2326.

69. In conclusion, he pointed out that it would be essential to the success of the Joint Protocol that the Agency continue to work for wider adherence to the Vienna Convention.

70. Mr. HIREMATH (India) said that his Government had reservations on the Vienna Convention, whose inherent defects were that it covered only damage resulting from accidents associated with the peaceful use of nuclear energy, and that it attributed liability exclusively to operators of nuclear installations. Damage could just as easily result from faulty design or manufacture, and there was no reason, for instance, why the Convention should exonerate the suppliers of defective nuclear equipment if, for commercial or any other considerations, changes or improvements had not been made known to the country to which the equipment had been delivered. Nevertheless, his delegation would not oppose the line of action set out for the Board and culminating in a one-day conference in conjunction with the thirty-second regular session of the General Conference to adopt the Joint Protocol.

71. Turning to Annex 3 of document GOV/INF/542 on the prevention of terrorist actions against nuclear installations, he recalled his Government's position regarding the Convention on the Physical Protection of Nuclear Material, namely that in its present form the Convention was binding only upon non-nuclear-weapon States. In order to be non-discriminatory and purposeful, it should cover all nuclear material under international transport, without making any distinction between civilian and military uses. In the final analysis, discrimination destroyed the Convention's very objective. It had been suggested at Board meetings in 1987 that the Agency's recommendations on physical protection should be reviewed. The Director General apparently intended to convene a group of consultants to advise him on the matter, and the Indian delegation trusted that its position on the Convention would be duly considered in that process.

72. It was evident from document GOV/INF/543 that INSAG had done useful work. His delegation agreed with the conclusion that it should be invited to advise further on nuclear safety issues. He would also suggest that, in its future work, INSAG should pay special attention to the dissemination of information on computer codes for the probabilistic safety assessment of various reactor types, inherently safe reactor concepts, and associated

research work. He wished to stress the need to facilitate the free flow of technical information to the international community regarding the severe accidents that had already occurred, specifically those at Three Mile Island and Chernobyl.

73. Mr. ERRERA (France) commended the Agency and NEA on their efforts to work out an appropriate linkage of the Vienna and Paris Conventions. France endorsed the Joint Protocol as a good first step, but believed that the main objective must still be to achieve the greatest possible adherence to the existing instruments. The Protocol would be effective only if it linked two systems that were widely accepted. To reach that goal, much remained to be done, and his delegation urged all States that had not yet done so to adhere to the Paris and Vienna Conventions.

74. Mr. RODRIGUEZ CEDEÑO (Venezuela), referring to the topic of State liability for damage arising from nuclear accidents, said it was essential to develop a widely accepted international legal regime covering both civil responsibility, which was treated in the Paris and Vienna Conventions, and State responsibility, which was being considered by the ILC. The harmonization of the two Conventions was an important step towards the adoption of an appropriate and uniform legal regime, but it did not resolve the problem definitively. The Joint Protocol would have the effect of extending the regime of specific responsibility to States parties to both instruments, and could and should promote greater adherence to them. For those reasons, his delegation endorsed the recommendations set out in paragraphs 7 and 8 of document GOV/2326.

75. Mr. AL-MINAYES (Kuwait) welcomed the efforts made to formulate a Joint Protocol linking the Paris and Vienna Conventions, endorsed the Director General's comments on INSAG contained in document GOV/INF/543, and expressed gratitude to the Secretariat for its excellent work in the field of nuclear safety.

76. Mr. van GORKOM (Netherlands)[*] said that his Government, convinced of the need to strengthen international arrangements regarding nuclear liability, endorsed the Joint Protocol and hoped it would be adopted at a conference scheduled to coincide with the thirty-second regular session of the General Conference. Adherence by the greatest possible number of States to the existing Conventions was desirable, and it was to be hoped that those which were not yet parties thereto, especially those which had nuclear power programmes, would reassess their positions with regard to the existing international nuclear liability arrangements. There would be room for further improvement after the Joint Protocol had been adopted: in particular, the parties to the Vienna Convention should consider reviewing and updating it

[*] In the summary records for this series of meetings (GOV/OR.686-690) Member States which were not members of the Board of Governors but which were nevertheless invited to take the floor under Rule 50 of the Board's Provisional Rules of Procedure are indicated by an asterisk.

along the lines of the Brussels Supplementary Convention. His Government would be submitting its views on State liability for damage arising from nuclear accidents to the Secretariat very soon, and was prepared to participate in the working group that was to be convened.

77. The Netherlands was keenly interested in the continuation of the Agency's useful efforts in the nuclear safety field and did not consider the activities initiated after Chernobyl to have been completed yet. Although the Director General's programme and budget proposals relating to the Agency's safety work gave some information on the progress achieved, and his statement to the Board at the previous meeting had outlined the Agency's response to the safety problems of the past few years, it would nevertheless be useful for the Secretariat to produce a more detailed progress report on activities undertaken under the supplementary nuclear safety programme and under the regular safety programme – a paper which could also be used for public information purposes. It would indeed be unfortunate if public opinion were given to understand that all was well again and the nuclear community had gone back to business as usual. He shared the Director General's views on the need to strengthen the Agency's public relations activities.

78. The Netherland authorities would carefully study the basic safety principles document prepared by INSAG and referred to in Annex 4 to document GOV/INF/542. The International Symposium on Severe Accidents in Nuclear Power Plants, to be held at Sorrento, Italy, in March 1988, would doubtless make a useful contribution to the study of the matter.

79. The Netherlands also looked forward to the meeting of the Nuclear Safety Standards Advisory Group (NUSSAG) in March 1988, and had noted with interest the Director General's remarks regarding the possibility of Member States declaring their support for, or acceptance of, the NUSS Codes.

80. With reference to document GOV/INF/543, his country fully endorsed the Director General's recommendations for the future of INSAG and was prepared actively to contribute to its work.

81. Mr. ZHOU (China) thanked the Governor from Brazil for his presentation on the nuclear accident in his country and extended deep condolences to the victims of that accident.

82. The Secretariat was to be commended for its work on the formulation of the Joint Protocol: his Government had on numerous occasions suggested that the Paris and Vienna Conventions should be harmonized. Although China was not a party to either, it agreed that the Board should endorse the Joint Protocol and submit it for adoption during the thirty-second regular session of the General Conference.

83. With reference to document GOV/INF/543 and the future of INSAG, he said that memories of the role INSAG had played in the hectic days after Chernobyl in 1986 were still fresh. In the three years of its existence, INSAG had put forward important proposals on nuclear safety which would help

to improve the quality and operational safety of nuclear power plants. The INSAG proposals were of great value as references for countries that were building nuclear power plants or wished to improve the quality of existing ones. He therefore endorsed the Director General's proposal that the mandate of the Group should be extended so that it could continue to play its important role in international nuclear safety.

84. The CHAIRMAN, summing up the discussion under the sub-item "Liability for nuclear damage", said that if there were no objections he would take it that, as recommended in paragraphs 7 and 8 of document GOV/2326, the Board wished to endorse the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention, contained in Annex I to that document, and that it agreed to the convening of a one-day conference, to be organized jointly by the Agency and NEA in conjunction with the thirty-second regular session of the General Conference, for the purpose of adopting the Joint Protocol and opening it for signature. He would also take it that the Board recommended inviting to the conference all Agency and NEA Member States, with the understanding that only the signatories of the Paris or Vienna Convention would be invited to sign the resulting Protocol.

85. It was so decided.

86. The CHAIRMAN said he further assumed that the Board wished to take note of the information contained in document GOV/INF/538 regarding adherence to the Vienna Convention.

87. It was so decided.

88. The CHAIRMAN, referring to document GOV/INF/537, said he took it that the Board hoped that sufficient Member States would have submitted comments on document GOV/2306 by the extended deadline of 31 March 1988 for the Secretariat to be able to prepare in due time a meaningful report for the Board, including suggestions as to how to deal further with the matter in question.

89. It was so agreed.

90. Mr. SCHAAD (Federal Republic of Germany), referring to document GOV/INF/542, noted that his country had already expressed its opinion on the sharing of nuclear-safety-related information by voting in favour of General Conference resolution GC(XXXI)/RES/474, and that it was keenly interested in as complete an exchange of safety-related information as possible.

91. To avoid unnecessary duplication in carrying out the activities proposed in document GOV/INF/542, the Agency should co-ordinate with NEA.

92. The Agency's efforts to improve the safety of nuclear installations were greatly appreciated, and its basic safety principles document and NUSS Codes were important contributions to maintaining the highest nuclear standards. It was to be hoped that as many Governments as possible would base their national legislation on those recommendations.

93. His Government also greatly appreciated the work done so far by INSAG and shared the Director General's opinion that it had made a substantial contribution to international nuclear safety co-operation. INSAG had recently suggested fruitful lines of development for programmes concerned with the human element in nuclear safety and with nuclear safety goals. The basic safety principles document recently finalized by INSAG was a timely attempt to integrate and structure the elements which should underpin the safety of all nuclear power reactors. In the light of INSAG's achievements over the past three years, his delegation agreed with the Director General that it should be maintained as an advisory body and its members appointed for a further three-year period.

94. Mr. CASTRO DIAZ-BALART (Cuba) felt that the activities outlined in Annex 1 to document GOV/INF/542 were both relevant and useful. The Secretariat should continue its efforts to facilitate the access of interested Member States to information on nuclear safety.

95. The prohibition of armed attacks on nuclear facilities was an extremely important subject in view of the disastrous effects of such attacks on the population and the environment. His delegation had therefore observed with growing concern that, ever since the adoption of resolution GC(XXXI)/RES/475, the subject had been trapped in a vicious circle. The Agency's activities were now contingent upon requests for assistance from the Conference on Disarmament, yet apparently no real progress was being made in that forum; in the circumstances, the Agency should take a more active approach to the problem.

96. Regarding the prevention of terrorist actions against nuclear installations, he believed the subject was much more important than the considerations set out in Annex 3 to document GOV/INF/542 indicated. The argument advanced there was that the problem should be solved on the basis of an instrument which, in his delegation's view, failed to deal with all the issues involved. It would be more appropriate either to establish a working group to review the subject, or to empower the working group whose formation was envisaged in the document to cover all aspects of the problem and not limit its work to advising on possible amendments to an instrument which was, a priori, defective.

97. The establishment of an emergency assistance fund to be used in cases of nuclear accidents was of real importance for developing countries, and an up-to-date revision of the NUSS documents would be extremely useful to countries which were launching a nuclear power programme. Both activities were therefore supported by his delegation.

98. Cuba attached special importance to regulatory documents, whose formulation and implementation could contribute to the quality and security of nuclear installations, the creation of a nuclear "safety culture", and the propagation of specific regulations for individual countries, such as the decree-law on State supervision of nuclear installation safety which had recently been adopted by his Government.

99. Cuba had not failed to note the excellent results achieved by INSAG in its three years of operation, and it supported extending INSAG's mandate for three years, provided the number of its members who were from developing countries was increased. His delegation also endorsed the proposal to confer on the group the task of advising on components of the Agency's nuclear safety programme.

100. Mr. ERRERA (France) said the elaboration by INSAG of the basic safety principles document and the revision of the NUSS Codes were valuable activities which had resulted in the creation of an impressive set of recommendations and guidelines on nuclear safety. Such activities bore witness to the productive role the Agency could play in stimulating international co-operation in that important area and justified the confidence placed in the Agency's effectiveness and efficiency. The Agency's safety-related activities also included the Operational Safety Review Team (OSART) missions, which France had supported from the very beginning; indeed it had participated actively in all of the Agency's efforts connected with nuclear safety. At the Board's meetings in June 1986, France had announced that it had taken the NUSS Codes into account in developing its own general safety principles, and it encouraged other countries to do likewise. His delegation was therefore fully in agreement with the Director General's comments on the subject and endorsed the idea of maintaining INSAG as an advisory body.

101. The phrase "an accident anywhere was an accident everywhere" was a powerful one but, like all such maxims, it could lead to ambiguity. While an accident anywhere could conceivably have a physical impact on populations elsewhere, the psychological impact of nuclear accidents was so great that in most countries people felt directly threatened by any and all nuclear incidents. The Agency should seek to resist that attitude. Neither the Agency nor its Member States could proclaim that good safety practices anywhere were good safety practices everywhere, but nothing should be done to lend credibility to the idea that bad safety practices anywhere were bad safety practices everywhere. The Agency and its Member States should aim at demonstrating their capacity to work together to maintain, or enhance if necessary, the safety and accident-prevention measures already in place and, if an accident did occur, they should manifest the best possible international solidarity and show their ability to intervene in an efficacious and co-ordinated manner.

102. Mr. TETENYI (Hungary) said his country attached great importance to all attempts to achieve the highest level of nuclear safety. That approach was partly dictated by Hungary's geographical position on the Danube, which served as a water supply for a growing number of nuclear power plants, including its own. His delegation welcomed the Secretariat's successful efforts in the field of nuclear safety and radiological protection, as outlined in document GOV/INF/542.

103. Hungary supported the Soviet proposal concerning the establishment of an international regime for safe nuclear power development, but also endorsed the view that the maintenance of nuclear safety was primarily a national responsibility. Nevertheless, national regulatory standards could incorporate or build upon the NUSS Codes, and his country was looking forward to the publication of the basic safety principles document.

104. National regulations were not governed solely by the technical aspects of nuclear safety: they were also related to political and administrative questions which differed from country to country. The NUSS Codes must therefore be sufficiently flexible to accommodate a range of well-founded national practices. Adherence to the Codes should in any case be voluntary and the free decision of each Member State.

105. In the Agency's present financial situation, the best approach to the question of establishing an emergency assistance fund to help developing countries in cases of nuclear accidents would be to issue the Emergency Notification and Assistance Technical Operations Manual (ENATOM), with its section on resources which might be required and could be provided by Member States. He expressed the Hungarian people's condolences to Brazil in connection with the tragedy at Goiania, and thanked the Governor for the detailed and useful presentation made on the subject at the Board's previous meeting.

106. The subjects of prohibition of armed attacks on nuclear facilities and prevention of terrorist actions against nuclear installations were extremely important: although they lay within the province of the Conference on Disarmament, the Agency, with its technical expertise, could give effective support to work on the subject. The Convention on the Physical Protection of Nuclear Material could also contribute to the solution of those problems. His delegation urged all States to become parties to the Convention, as Hungary had, and supported the idea of the Agency carrying out studies with the aim of proposing improvements to the Convention for discussion at the first review conference.

107. Mr. YBAÑEZ (Spain) recalled that at the Board's meetings in June 1987 he had already expressed his concern at the vast array of new measures being proposed to strengthen international co-operation in nuclear safety and radiological protection. Any such measures would need to be kept within the limitations imposed by the Agency's mandate, and would have to take account of the resources available, as well as of a proper order of priorities. Document GOV/INF/542 showed that the work already done had produced generally satisfactory results. In the field of nuclear accident prevention, the initiatives listed already covered a sufficiently wide range of activities. The deadline set for the completion of certain of those activities – the year 1990 – appeared to be a limiting factor, which might be taken into account by submitting to the Board in June 1988 a detailed schedule for the programme's implementation, within the constraints of available

resources. Where radiation protection was concerned, he hoped that the content of the proposed data bases, on occupational exposures and on radiation sources, respectively, would be limited to what was strictly necessary for the achievement of the objectives set forth in Annex 1 to GOV/INF/542.

108. In regard to the prohibition of armed attacks on nuclear facilities, the steps already taken by the Agency and by the United Nations General Assembly were satisfactory in that they placed the Agency in a position which was correct from the statutory point of view vis-à-vis the Conference on Disarmament. He endorsed the proposals for updating document INFCIRC/225/Rev.1 on the physical protection of nuclear material in order to take into account terrorist actions against nuclear installations.

109. The OSART mission to a Spanish nuclear installation in December 1987 had been a most effective contribution to the international exchange of information on the operational safety of nuclear installations, and such missions should have the whole-hearted support of all Member States. In particular, the participation of countries which did not yet have fully developed nuclear programmes was of the greatest importance. Spain's willingness to contribute to the maximum extent possible - within the limits of its resources - to the achievement of the Agency's goals in the matter of nuclear safety and radiological protection was demonstrated by its co-operation with the OSART team.

110. Finally, he entirely agreed with the brilliant analysis by the Governor from France saying that an accident anywhere was an accident everywhere. The Agency should be wary of such pronouncements because of the effect they might have on public opinion. The public might be led to infer that, when a nuclear accident occurred, the fault was to be ascribed to the use of nuclear energy in itself, rather than to human error, whereas in fact human errors had been known to occur in the use of other sources of energy as well.

111. Mr. SHENSTONE (Canada) said his comments on Annex 1 to document GOV/INF/542 were largely of a technical nature, and he would accordingly be transmitting them direct to the Secretariat.

112. He thanked the Director General for the report contained in GOV/INF/543, and commended INSAG on the creditable job it had done in the brief period of its existence. The high profile of nuclear safety issues over the past few years meant that its work was particularly important. His Government strongly supported INSAG and welcomed the Director General's decision to extend its mandate for another three years; it also took note of the plans to extend the scope of the Group's work, as set out in paragraphs 8 and 9 of the document.

113. Mr. MORPHET (United Kingdom) said that where the sharing of nuclear-safety-related information was concerned, his delegation could support the principle that commercial arrangements should in appropriate cases recognize the importance of nuclear safety, although governments did not have

powers to compel suppliers to provide such information. However, the United Kingdom would encourage suppliers to co-operate, within the terms of the contractual arrangements. His country likewise supported the principle of protection of nuclear facilities used for exclusively peaceful purposes, but such issues were highly complex, and the Conference on Disarmament in Geneva was the proper forum for discussing them.

114. The Board had considered proposals for the setting up of an emergency assistance fund as recently as September the previous year, and had recognized that there were a number of difficulties involved, not least the problem of how such a fund would be financed and replenished. Under the Emergency Assistance Convention, a mechanism already existed whereby States could call on the assistance of other States parties, and the value of that mechanism had been demonstrated by the response of Member States to the incident at Goiania. The benefits of a competing mechanism such as the proposed emergency fund would not be sufficient to justify the very considerable investment of time and resources that would be needed.

115. On the subject of safety, he welcomed the valuable work that had been done on the revision of the NUSS Codes. The task had been approached in a competent and workmanlike way and great benefits should be obtained from the exercise. The United Kingdom supported the principle of voluntary adherence to the standards embodied in the NUSS Codes; however, safety was a national responsibility, and a country would need to be sure that the standards set fitted in with its own existing regime. The United Kingdom was strongly committed to a safe nuclear industry and would continue to support the Agency's work in that area.

116. He fully endorsed the memorandum on INSAG (GOV/INF/543) and paid tribute to the excellence of the Group's work. The Director General had shown great foresight in setting up the Group, and the Agency had been fortunate in having its expertise to draw on over the past few years. However, he had some reservations about extending its purview into the field of radiological protection; the International Commission on Radiological Protection (ICRP) was the body primarily concerned with that subject, and unnecessary duplication should not be encouraged. There was a risk that the success already enjoyed by INSAG would be diluted if its field of competence was extended too widely. Its great value lay in the "hands on" operating experience of its members, and it was not likely to be short of tasks related to nuclear safety issues over the next three years.

117. He shared the concern expressed by the Governor from France on the saying that an accident anywhere was an accident everywhere. Unfortunately, that expression was declaratory rather than scientific; it was intended to suggest that all countries had a common interest in safety, but it implied that all accidents were alike both in cause and in consequence, whereas in fact there were very large differences, both in quantity and in quality, between different incidents. There was a danger that that point might become blurred in the mind of the public, and care must be taken not to give the impression that all accidents were alike.

118. Mr. HAHN (Republic of Korea) said that the taking of precautions to prevent nuclear accidents was more important than the control of an accident that had already taken place. He urged the Agency and its Member States to make every effort to facilitate the taking of such precautions by co-operating in the sharing of nuclear-safety-related information, the prohibition of armed attacks on nuclear facilities, and the prevention of terrorist actions against nuclear installations.

119. He agreed with the Director General's assessment that INSAG had amply demonstrated its usefulness. His delegation was highly satisfied with the Group's achievements, and fully supported the recommendation that its work be continued.

120. Mr. SEMENOV (Union of Soviet Socialist Republics), referring to the question of prohibiting armed attacks on nuclear facilities, said that his Government continued to believe that the Agency could well express its expert opinion on the various technical aspects of the question, but that it would be more appropriate for the issue as a whole to be dealt with in some other forum, such as the Geneva Conference on Disarmament.

121. With regard to the prevention of terrorist actions against nuclear installations, the Agency's efforts would be best directed towards preparing an additional protocol to the Convention on the Physical Protection of Nuclear Material, which could be considered at the conference for the review of that Convention due to take place in 1992. Such a protocol could perhaps extend the scope of the Convention to cover not only nuclear material in transit, but also material within States. Before doing so, however, it would be advisable to review the Agency's recommendations regarding levels of protection of nuclear material, as at present set forth in document INFCIRC/225/Rev.1. In general, he felt that so many mechanisms already existed for the exchange of information on nuclear safety that it would be unwise at the present stage to introduce new ones; rather, the Agency should consider how its existing mechanisms could be used more effectively.

122. Document GOV/INF/543 showed that INSAG had accomplished a great deal of highly useful work. That work had become particularly significant in the light of recent events, which had focused attention more sharply on nuclear safety issues. As the Governor from the United Kingdom had rightly pointed out, it had been farsighted of the Director General to set up the Group in advance of those events. The reports prepared by the Group were of high quality and covered a wide range of subjects in depth, and he paid tribute to members of the Group for their expertise.

123. When the Group had originally been established, its terms of reference had been very clearly spelt out; if the tasks now to be assigned to it fell within those terms of reference, then his delegation could support the recommendation in document GOV/INF/543 that its existence be continued for a further three-year period. However, for more specific and narrow questions such as radiation protection, it would be more effective to set up special ad hoc working groups when required.

124. Mr. KENNEDY (United States of America) pointed out that although the topics "Sharing of nuclear-safety-related information", "Formulation of basic safety principles", and "Review and revision of NUSS documents" had appeared on the agenda of all meetings of the Board since the 1986 General Conference, no new information concerning them had been received from sponsoring Member States in time for the current Board meetings.

125. His delegation's views on the policy aspects of those issues were already well known. As to the first, the United States supported the concept of sharing safety-related information, but considered that commitments such as those called for in General Conference resolution GC(XXXI)/RES/474 were too broad. Mutually agreed bilateral and regional co-operation arrangements could provide a sufficiently flexible solution. With regard to the work done so far on defining basic safety principles, that had been extremely useful, but ultimate responsibility for the adoption of regulatory standards and practices must rest with sovereign States. It was therefore not appropriate for the Agency to attempt to create an international regime making such standards and practices obligatory. Again, while his Government supported the review and revision of NUSS documents, it believed that the NUSS Codes could not be used as a universal code or standard because of the disparate nature of international activities in the field. In the last analysis, enforcement of nuclear safety standards must be the responsibility of individual States.

126. In his Government's view, the appropriate venue for discussion of the issue of armed attacks on civil nuclear facilities was not Vienna, but other forums that were better placed to deal with it, such as the Security Council or the Conference on Disarmament in Geneva. The serious military, technical and legal problems which would need to be resolved in formulating a multilateral approach to the issue went well beyond the Agency's competence. A debate in the Board on the provisions of the United Nations Charter or on the laws of war was unlikely to be conclusive or rewarding, and would detract from the Agency's ability to pursue its other basic responsibilities. He noted from Annex 2 to document GOV/INF/542 that the Agency had indicated its willingness to assist the work of the Conference on Disarmament on the matter, if so requested. That was an appropriate initiative, but he could not agree to any proposal which would go beyond it in scope.

127. The views of his delegation on the issue of nuclear terrorism had likewise been stated on several occasions, and he would only reiterate that primary responsibility for protecting peaceful nuclear installations from the threat of terrorist attacks lay with each sovereign State in the exercise of its police powers. He was pleased to note, however, that the Director General was convening a group of consultants to develop amendments to the existing physical security guidelines contained in document INFCIRC/225/Rev.1, and the United States was ready to assist that effort in any way the Secretariat might find useful.

128. Finally, his delegation believed that the case for setting up an emergency assistance fund - another subject which had been discussed repeatedly in the past - was not established. The Agency and its Member

States already had the capability to provide necessary assistance in the case of emergency, as had been demonstrated by the recent unfortunate incident in Brazil. The tying up of a fixed sum in a specific fund was not an appropriate use of resources, and therefore he continued to oppose the proposal. Discussion of the matter could well be excluded from the Board's agenda in future, since the Board's time would be better spent in reviewing specific reports on actions already taken.

129. Mr. HADJI-AZIM (Islamic Republic of Iran)[*] thanked the Board for giving him the opportunity to speak on the subject of the prohibition of armed attacks on nuclear facilities, with particular reference to operative paragraph 2 of General Conference resolution GC(XXXI)/RES/475.

130. One of the most serious problems facing the Agency in recent years had been the threat of armed attacks on peaceful nuclear facilities, and how to provide assurances against such attacks. The Agency's General Conference had repeatedly addressed that question and had adopted specific resolutions, notably resolution GC(XXIX)/RES/444. That resolution, noting that any armed attack or threat against nuclear facilities devoted to peaceful purposes constituted a violation of the principles of the United Nations Charter, international law and the Statute of the Agency, had urged all Member States to make, individually and through competent international organs, further continuous efforts aimed at the prompt adoption of binding international rules prohibiting armed attacks against all nuclear installations devoted to peaceful purposes.

131. Unfortunately, the successful adoption of those resolutions had not been followed by equally successful implementation. On 17 and 19 November 1987 the Bushehr nuclear power plant, which had been attacked several times in the past, had been bombed again; a number of engineers and workers had been killed, and the plant's buildings and equipment had suffered serious damage. The attacks had occurred during working hours, when hundreds of people were at the site.

132. It must be emphasized that activities at the site were concerned solely with the preservation and maintenance of the plant's buildings and equipment. However, because of the work's technical nature, the assistance of specialists in various fields was required, and it was thus that a number of German expatriates were assisting Iranian personnel on the site; unfortunately, one German engineer, Mr. Jurgen Friedrichs had been among the 13 persons killed as a result of the attacks. There had also been 51 people injured, some as a result of machine-gun fire from the aircraft.

133. More than 22 locations on the site had been hit by various types of bombs or missiles, and all the buildings concerned had been seriously damaged. Mechanical and electrical installations or systems inside the buildings had been partially or totally destroyed.

134. Despite the existence of a quantity of nuclear material on the site, he was happy to announce that the Islamic Republic of Iran's initial assessment of the area had not shown any radioactive releases. Nevertheless, in view of the extent of the damage inflicted on the plant, the Atomic Energy Organization of Iran had been in contact with the Director General to seek expert help from the Agency. It was clear that experts in a number of disciplines would be required, and the Director General had kindly arranged for discussions on the subject between Iranian representatives and the relevant Divisions of the Agency.

135. The most recent armed attack on the Bushehr plant had been far more serious than previous attacks, and had involved greater human and material losses even than the attack on the Tammuz reactor in 1981. The plant was an entirely civilian project in which several other countries had participated, and the Agency itself had been involved, through the sending of expert missions to assist with safeguards implementation and plant design. The project was a good example of international co-operation, and its contribution to the promotion of nuclear energy, not only in the Islamic Republic of Iran but in other developing countries, was of paramount importance.

136. The significance of the implications for the Agency of reported armed attacks on a nuclear power plant under construction could not be underestimated, and the matter deserved most careful examination by the Board. His Government considered that the Agency's reaction to the attacks on Bushehr had been inadequate. The time had come to realize that any armed attack on a nuclear power plant, whether under construction or in operation, placed in jeopardy the peaceful use of atomic energy for all Member States. The Director General himself had said in a Board meeting in February 1985, [2] that in view of proposals to construct nuclear power reactors in several countries of the Middle East, those countries, and indeed the world at large, would require firm assurance that such peaceful facilities would be immune from attack.

137. The launching of a nuclear power programme was an extremely capital-intensive undertaking which drew on all the financial resources of the country concerned. If a nuclear power plant was attacked at any stage of its construction, recovery of the programme might be impossible, not least on economic grounds; such an attack would thus constitute a violation of the Agency's Statute, and would undermine the Agency's promotional role.

138. For all those reasons, he urged the Board to condemn the armed attacks on the Bushehr nuclear power plant, and to seek moral and political assurances that such attacks would not be repeated. The Board should also request the Director General to dispatch appropriate technical missions to the Bushehr site, and to reiterate the Agency's condemnation of all armed attacks against nuclear installations devoted to peaceful purposes. The Board should once again appeal to all Member States to pursue efforts to secure prompt adoption of binding international rules prohibiting armed attacks against peaceful nuclear installations at any stage during their construction and operation, and, finally, it should request the Director General to continue to keep the Board informed on any developments regarding reported attacks.

[2] See document GOV/OR.631, para. 9.

139. While he realized that the Board might not be in a position to take immediate action to meet those requests, he would be grateful if the Board could make appropriate recommendations at its next series of meetings, or at the General Conference.

140. The DIRECTOR GENERAL recalled that the Governor from Iraq had asked why the Agency planned to send a mission to the damaged Bushehr plant, whereas in 1985 he himself had stated in the Board that verification of reported war damage and losses in respect of a plant still under construction was not an appropriate task to be undertaken by a Agency mission. In fact, he did not consider there to be any inconsistency between the statement he had made in 1985 and the mission now contemplated. In 1985, the Islamic Republic of Iran had requested that a technical advisory mission be sent to assess the safety of the concrete structure of the reactor building, and the Agency had responded by sending such a mission.

141. In an exchange of cables in late autumn of the previous year, following damage to the Bushehr plant, he had stated that it was not for the Agency to judge, in the case of controversy, whether damage was the result of deliberate and perhaps illegal attacks, or incidental to attacks on military targets. Nevertheless, he had expressed the view that the Agency could, as in 1985, render expert assistance to the Islamic Republic of Iran in assessing whether damage to the buildings under construction would impede further construction, or would endanger the eventual use of the buildings. Thus, the Governor from Iraq would see that what was contemplated was not an assessment of war damage in general, but rather a more specific assessment of damage, in order to help determine whether that damage could be repaired and to see what relation it might have to the safety of the plant.

142. Mr. AL-KITAL (Iraq) thanked the Director General for his explanation of the action he intended to take in regard to the Bushehr site. He reserved the right to reply to the statement made by the representative of Iran at a later meeting.

143. The CHAIRMAN, summarizing the discussion on sub-item 3(c) of the agenda, said that, with regard to the sharing of nuclear-safety-related information, he took it that the the Board had noted from the information provided in Annex 1 to document GOV/INF/542 the increased efforts being made through the Agency's programmes to promote information exchange, for the purpose of preventing nuclear accidents and mitigating the consequences of any such accident, and to promote information exchange on radiation protection.

144. He concluded that, for the time being, the Board had completed its discussion of the substance of that topic, with the understanding that it might resume its discussion if more precise proposals were made and that, where appropriate, matters relating to that topic would be referred to in discussions of the Agency's programme and budget.

145. On the question of the prohibition of armed attacks on nuclear facilities, the Board had noted the recent letter addressed by the Director General to the Secretary General of the Conference on Disarmament in the light of General Conference resolution GC(XXXI)/RES/475. In that connection, the Board had heard statements from the representative of the Islamic Republic of Iran, the Governor from Iraq, and the Director General regarding the nuclear power plant under construction at Bushehr.

146. With regard to the question of the prevention of terrorist attacks against nuclear installations, the Board, while recognizing that the physical protection of nuclear installations and nuclear material was a national responsibility of States, had taken note of the Director General's intention to promote international co-operation in that area, by convening a group of consultants to advise him on whether any amendments were needed to bring up to date the Agency's guidelines on the physical protection of nuclear material contained in document INFCIRC/225/Rev.1, and if so, to discuss the nature and scope of such amendments. The Board looked forward to being informed of the recommendations of the proposed group of consultants.

147. As to the question of the establishment of a nuclear emergency assistance fund to help developing countries in cases of nuclear accidents, the discussion had shown that there was still no consensus on how such a fund might be set up and operated, or on any alternative mechanisms for providing such assistance. In the circumstances, and in the absence of specific proposals from the sponsors of the original proposal, he took it that the Board wished to return to the question if and when precise proposals were submitted to it.

148. With regard to the formulation of basic safety principles for existing or future reactor types, the Board welcomed the recent finalization by INSAG of a set of basic nuclear safety principles addressed to nuclear power plant designers, regulators and operators, and noted the intention of the Secretariat to publish them shortly. It was hoped that their publication would result in their wide acceptance and application, leading over a period of time to a considerable enhancement of nuclear safety levels.

149. Finally, on the question of the updating of the NUSS Codes of Practice, the Board had noted with satisfaction the progress made, and looked forward to receiving the updated versions for endorsement later in the year, when it might also wish to consider the idea put forward by the Director General and by some Governors that Member States might voluntarily declare their support for and acceptance of the Codes of Practice.

150. The Board might wish to revert to some of the topics discussed under the heading "Continuation of other work relating to nuclear safety and radiological protection" during its discussion of the Agency's programme and budget for 1989/90, when many of the conclusions drawn from its discussion during the current meetings would be reflected.

151. It was so agreed.

GOV/OR.688

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (continued)

(d) THE INTERNATIONAL NUCLEAR SAFETY ADVISORY GROUP (INSAG) (GOV/INF/543) (continued)

1. Mr. ZANGGER (Switzerland) said that the safety authorities of his country appreciated the quality of the work done by the International Nuclear Safety Advisory Group (INSAG) and considered documents Nos 75-INSAG-1 and 75-INSAG-2 in the Safety Series to be instruments of fundamental importance. Like the Director General, they believed that the proposal to maintain INSAG and to renew its mandate for three further years was fully justified.
2. However, the method of adopting INSAG's next document, on basic safety principles for existing and future reactor types, called for a few comments. It seemed that the document in question, drafted by an advisory group for the Director General, was to be published without Member States being consulted or given any opportunity to comment on it. It was thus being treated quite differently from the NUSS documents, which had been drawn up in consultation with national authorities. To be sure, his delegation noted with satisfaction that the document in question was to be submitted to the scrutiny of experts who would be participating in the International Symposium on Severe Accidents in Nuclear Power Plants at Sorrento, but that arrangement hardly seemed adequate for a convincing and concerted validation of the document's conclusions. It was a well-known fact, furthermore, that some of the documents drawn up under the NUSS programme were subject to revision, and there were, as it happened, functional links between those NUSS documents and the basic principles set forth in the INSAG document. His delegation accordingly wanted to ask the Deputy Director General for Nuclear Energy and Safety how it was possible to be sure that there would be no incompatibility between the NUSS documents and the specific INSAG document to which he was referring.
3. Mr. DAUKI (Libyan Arab Jamahiriya) said that his country had high expectations of the introduction of the new communication system under the Early Notification Convention and hoped that the forthcoming Agency manual would enable Member States to become familiar with the system. His delegation attached great importance to the Emergency Assistance Convention and had therefore been pleased to note the solidarity shown after the regrettable incident at Goiania. With regard to radiological protection, India had been right to request that certain developing countries be helped to set up effective national procedures for checking products before they were marketed. His country had in fact been delivered contaminated products which it had been able to detect thanks to just such a surveillance procedure. He wished also to emphasize the Agency's activities in connection with the protection of nuclear power plants against armed attacks or terrorism, taking the view that an accident anywhere was an accident everywhere. His delegation endorsed the statement by the Governor from Cuba, and again thanked the Agency for its efforts in the field of radiological protection and nuclear safety.

4. Mr. KONSTANTINOV (Deputy Director General, Head of the Department of Nuclear Energy and Safety), replying to the Governor from Switzerland, said that the NUSS documents reflected the present status of practical work in nuclear safety, whereas the principles set out in the future INSAG document were more fundamental and reflective in nature. That document was first to be submitted to the experts at the Sorrento symposium for discussion. At all events, the Agency had never intended to avoid seeking the views of Member States on the document – which in its present form was only a proposal put forward by an advisory group and in no sense a final document. On the basis of the opinions received, the Board could decide what course to follow. The nuclear safety principles were concerned with the ultimate objective of the nuclear community, which was to guarantee the safety of all; they did not go into details, but rather sought to define the goals to be reached, in the hope that that would make it possible ultimately to improve national regulations. To sum up, then, the INSAG document would first be presented, in March, to the symposium at Sorrento, and then distributed to experts in Member States; and on the basis of the comments thus gathered, the Board would eventually be called upon to give its own views.

5. Mr. ZANGGER (Switzerland) thanked the Deputy Director General for his clear explanation of the procedures envisaged for adoption of the INSAG document. A doubt nevertheless persisted in his mind concerning the compatibility of the document in question with the NUSS documents. Did the procedure which had just been described imply that, when the INSAG document had been completed in final form and approved by the Board, there would be some kind of verification of compatibility between the principles it contained and the NUSS documents?

6. Mr. KONSTANTINOV (Deputy Director General, Head of the Department of Nuclear Energy and Safety) explained that the aim was to improve the safety not only of existing nuclear power stations but of future plants as well. To give an example, he felt that the likelihood of an accident at a nuclear power plant – already extremely slight – should be further reduced in the future, to a tenth of the present figure if not less. The primary aim was to provide a sound basis for national safety decision-makers to continue improving their standards. Thus the INSAG document contained no specific technical requirements which would entail the necessity of modifying national regulations already in force. As soon as Member States had had the opportunity to familiarize themselves with the document, they would immediately see that it was a paper containing principles of a general kind; the concrete problem of how technically to apply them to the codes and standards remained in any case the prerogative of national authorities. There was thus no incompatibility between the NUSS Codes of Practice and the INSAG principles.

7. Mr. MORPHET (United Kingdom) said that his delegation understood and shared the concern expressed by the Governor from Switzerland regarding the risk of incompatibility between the NUSS documents and the INSAG document. For that reason it was particularly grateful to Mr. Konstantinov for the assurances he had given that there would be no such incompatibility.

8. The CHAIRMAN said it was his understanding that the Board approved the Director General's proposal to maintain INSAG, as set out in paragraphs 7 to 9 of document GOV/INF/543, on the understanding that due account would be taken of the observations made during debate on the work and the future orientation of INSAG.

9. It was so decided.

10. The CHAIRMAN said that consideration of item 3 had been completed, but that the Board would have to revert to the general subject of measures to strengthen international co-operation in nuclear safety and radiological protection, since operative paragraph 2 of resolution GC(XXXI)/RES/473, adopted at the previous regular session of the General Conference, requested the Board to report on that subject to the General Conference at its thirty-second regular session. He therefore suggested that the Secretariat be asked to prepare a draft report to the General Conference, based on the discussions which had just taken place, for the Board to consider in June.

11. Unless there were new, concrete proposals on matters of nuclear safety and radiological protection, the substantive discussions could now be considered completed. Of course, certain aspects of the problem would be discussed again in the context of the programme and budget for 1989-90. Also, if there were any new developments, the Director General would inform the Board in June, either in his traditional statement or in some other appropriate manner.

June 1988

GOV/OR.695 (provisional version)

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (GC(XXXI)/RES/472 to 475; Note to Governors of 18 May 1988 - Draft report to the General Conference)

96. The CHAIRMAN, inviting the Board to turn to agenda item 9, "Measures to strengthen international co-operation in nuclear safety and radiological protection", recalled that in 1987 the Board and the Director General had submitted to the General Conference, in document GC(XXXI)/816, a report prepared in response to a number of decisions taken and requests made by the Conference during the special session and the regular session of 1986. At its 1987 regular session, the Conference had again adopted several resolutions (GC(XXXI)/RES/472, 473, 474 and 475) on nuclear-safety-related matters containing requests pursuant to which substantive discussions had been held in the Board, and also during review of the programme and budget for 1989 and 1990 in the Administrative and Budgetary Committee.

97. The present item comprised three sub-items and consideration of a report to the General Conference.

98. The first sub-item was entitled "Liability for nuclear damage". Member States had been asked to submit comments on document GOV/2306 ("The question of international liability for damage arising from a nuclear accident"), and the comments received were now before the Board in the Annexes to document GOV/INF/550 and its Addendum, together with a cover note summarizing some of the points made.

99. Under the second sub-item, "Revision of the NUSS Codes", the Board had before it, in the five Annexes to document GOV/2340, revised texts of the NUSS Codes, which had been reviewed and endorsed by the Nuclear Safety Standards Advisory Group (NUSSAG) in March 1988. The recommendation for action by the Board was contained in paragraph 5 of the cover note.

100. In that connection, the Director General had on various occasions referred to the possibility of Member States declaring their support and acceptance of those standards, with the clear understanding that they were not legally binding. Board members might wish to comment on that suggestion during discussion of sub-item 9(b).

101. With regard to sub-item 9(c), the 1963 Nordic Mutual Emergency Assistance Agreement in Connection with Radiation Accidents (reproduced in document INFCIRC/49) had been reviewed in the light of the 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (INFCIRC/336), and as a result of that review it had been proposed that the 1963 Agreement be replaced by a Nordic Co-operation Agreement on Assistance in Connection with a Nuclear Accident or Radiological Emergency. The text of that Agreement was set forth in the Annex to document GOV/2354, and the recommended action by the Board would be found in paragraph 6 of the cover note thereto.

102. The final matter for consideration under the present item was the report which the Board and the Director General would be submitting to the forthcoming session of the General Conference in September. As requested by the Board in February, the Secretariat had prepared a draft of a report, copies of which had been circulated to members in a Note to Governors on 18 May. The draft report followed the same pattern as the report submitted to the General Conference on the same subject in the previous year, namely document GC(XXXI)/816. It would have to be completed in order to take the present discussions into account, but that could be left to the Secretariat, following the same structure as the draft circulated on 18 May.

(a) LIABILITY FOR NUCLEAR DAMAGE (GOV/2306; GOV/INF/550 and Add.1)

103. Mr. BRADY ROCHE (Chile) said that the subject of international liability of States was of great concern to his country, which had made detailed comments, reproduced in document GOV/INF/550. A meeting of experts on the subject should be convened as soon as possible. However, he was not sure what would be the most appropriate forum for such a meeting, since the international liability of States for nuclear damage could not be considered separately from other areas of States' liability, and there was a tendency in international law to create precedents and standards which made it difficult to separate one area from another.

104. On the other hand, attempting to deal with the area of State liability as a whole would mean taking the risk of having no standards for a very long time to come. The International Law Commission (ILC) had been studying the subject for over ten years without reaching any conclusions or consensus on vital aspects of the problems.

105. There was a fairly widespread belief that when States did not wish to achieve quick results in codifying or solving a legal or political problem, or when a subject was to be adapted to the classical canons and principles of international law, it would be entrusted to the ILC, whose traditions and procedures kept it moving on the plane of general principles and standards. When faster results were desired, such as the establishment of standards for new and specific situations in well-defined areas, requiring more pragmatic solutions and quick compromises, then expert groups or special conferences would be resorted to.

106. Thus, it would seem most appropriate for the Agency, in conjunction with the United Nations, to convene a meeting of governmental experts or a conference with the mandate of preparing a special convention on the subject of State liability for nuclear damage, close co-operation being assured with the Sixth Committee of the General Assembly and with the ILC, which had a Secretariat with expertise in international law and a specialized staff of translators.

107. Mr. GUYER (Argentina), endorsing the principle of international liability of States for damage arising from a nuclear accident occurring in its territory, or outside its territory, or affecting foreign nationals or property, said that the development of the "legal community" would no doubt increasingly lead to the widespread adoption of that principle, although perhaps many years would elapse before the establishment of an effective means of recourse against a State perceived to be in breach of the principle. However, the lack of a means of enforcement would not prevent States from conducting themselves as true "ethical persons" and respecting that principle in practice.

108. Argentina wished to associate itself with the majority of States which supported the Secretariat's recommendation, in paragraph 5(a) of document GOV/2306, to convene an open-ended working group of governmental experts to study the issues involved and the possible scope of an international legal instrument. The group should not be formed exclusively of legal experts, but should also include high-level technical experts so that its conclusions and proposals would have a firm basis and would not conflict with the reality of nuclear activities.

109. Mr. KENYERES (Hungary) said that his country did not oppose the harmonization of the Vienna and Paris Conventions - although appreciating the complexity of the problem - but nevertheless supported the Secretariat's recommendation in paragraph 5(a) of document GOV/2306. Once the harmonization of the two Conventions was successfully completed, there should be an exchange of views aimed at finding a compromise solution on the question of State liability for nuclear damage, in which Hungary was willing to participate.

110. Mr. HIREMATH (India) said that the Secretariat's proposal regarding a working group of governmental experts was intended to complement the existing civil laws on nuclear liability, namely the 1960 Paris Convention and the 1963 Vienna Convention, in areas such as claims between States, environmental damage, etc., where those regimes were incomplete owing to legal lacunae.

111. India was not a signatory to the Vienna Convention, largely because it was incomplete in that it did not cover non-peaceful activities, but also because it assigned absolute liability to the nuclear facility operator, exonerating suppliers and manufacturers from liability for design or manufacturing defects in the equipment used at a nuclear facility.

112. However, the ILC was still examining the topic of "international liability for injurious consequences arising out of acts not prohibited by international law". In his Government's view, liability questions in the nuclear field could not be treated separately from the wider issues of State liability being considered by the ILC. It was therefore premature, before the outcome of proceedings in the ILC became clear, to establish an open-ended working group of governmental experts to consider the scope of a new international legal instrument in that field. Nevertheless, India would not oppose the convening of such a group if its mandate was limited to observing ILC proceedings and keeping the Board informed through the Director General, of their implications as far as they related to the proposed international regime of liability for nuclear damage.

113. Mr. SHENSTONE (Canada) strongly supported the early convening of an open-ended group of governmental experts to commence further consideration of the question. Canada did not underestimate the difficulties involved, but believed that it was precisely the complex nature of the problem and the wide divergence of views that made it urgent for work to begin as soon as possible.

114. The proposed exercise would not conflict with efforts already undertaken to improve the existing civil liability regimes. However much those regimes were improved, gaps would remain which the working group would have to tackle, along with other unresolved issues. It would also not conflict with the ILC's activities, nor was it necessary to await the outcome of that Commission's lengthy deliberations before commencing work on a specific area such as liability for nuclear damage. In the light of certain existing precedents, agreement in that area might be easier to attain than on the broad general issue of accidents with transboundary effects being discussed by the ILC.

115. With regard to the working group's mandate, he recognized that it would require careful consideration, but felt that it should in any case be broad enough to allow study of the issue of State liability in the context of a new separate legal instrument.

116. Mr. PETROV (Bulgaria) said that the drawing-up of an international legal document governing State liability for damage arising from a nuclear accident which was acceptable to a majority of States would be an

important step forward in the development of the peaceful uses of nuclear energy. The IAEA, as the most authoritative international organization in that field could make a significant contribution towards that difficult and complex endeavour and would be the most appropriate forum to carry out the associated work.

117. Bulgaria therefore supported the Director General's recommendation to establish an open-ended working group. The issues listed in Annex 2 to document GOV/2306 could provide a foundation for the group's work. In view of the probable duration of such a process and the complexity of the issues involved, the group should be set up as soon as possible.

118. Mr. USTYUGOV (Union of Soviet Socialist Republics) said that since the Secretariat's proposal to convene an open-ended group of experts had the support not only of his delegation, but as document GOV/INF/550 showed, of the majority of Board members and of many other Member States, the Board should instruct the Director General to organize such a meeting, which should begin work shortly on the basis of a mandate ratified by the Board. In the preliminary stages, the experts' work should be aimed at drawing up an international legal document to regulate questions of international liability in the nuclear sphere.

119. Mr. BAEYENS (France) considered that the most appropriate framework to deal with the question of liability for damage arising from a nuclear accident remained the civil regime, where compensation was essentially the responsibility of States, which provided coverage for their operators and were thereby in any case deeply committed. Nothing would be gained by establishing direct and primary liability of States by means of new international regulations. The main objective should rather be to harmonize the existing civil-law conventions, and to persuade a majority of States, particularly those with the potential to cause damage, to adhere to them. It would also be appropriate to review and improve, in the light of experience, the limitation regime, which was a vital aspect of the objective liability issue.

120. For those reasons, he supported the suggestion in paragraph 8 of document GOV/INF/550 that the Secretariat could continue to study the question and to inform the Board of new developments, but he opposed, at the present stage, the establishment of a working group in accordance with paragraph 5(a) of document GOV/2306.

121. Mr. SCHAAD (Federal Republic of Germany) said that his country was fully committed to the idea of an effective and binding international regime to provide compensation for damage arising from nuclear accidents and hoped such a regime could be established without delay. He therefore looked forward to the Conference on the Relationship between the Paris and Vienna Conventions, to be held in Vienna on 21 September 1988, at which the Joint Protocol harmonizing the liability regimes set by the Paris and Vienna Conventions would probably be adopted and opened for signature, and he appealed to all delegations to attend that Conference and take the necessary steps to adhere to the international liability regime to be created thereby.

122. Still, even though the establishment of such a regime based on the Paris and Vienna Conventions would represent an important step in the right direction, further improvements were both possible and necessary, for example to ensure satisfactory financial coverage in the event of a nuclear accident. Such improvements could perhaps be effected by means of a new supplementary international instrument on States' liability for nuclear damage. However, it was doubtful whether rapid progress could be made in that area. Discussion of such a new international regime should therefore proceed on the clear understanding that it must not delay the establishment of the international liability regime based on the Paris and Vienna Conventions.

123. Ms. TALLAWY (Egypt) said that the comments by Member States reproduced in document GOV/INF/550 seemed to reflect a desire for the Agency to pursue the question of international liability further in co-operation and co-ordination with other concerned parties, in particular the ILC. Egypt agreed that doing so would not conflict with efforts to harmonize the civil liability regimes of the Paris and Vienna Conventions by means of a Joint Protocol to review and remedy the shortcomings in either Convention. She therefore associated herself with other speakers in supporting the Secretariat's proposal to establish an open-ended working group of governmental experts, and hoped it would be implemented as soon as possible.

124. Mr. ROSALES (Cuba) also expressed himself in favour of convening an open-ended working group of governmental experts for further consideration of the issue of international liability of States. Given the sensitive nature of that subject both in general and in the specific case of nuclear accidents, it would be important to specify the following aspects of the working group's activity: firstly, the mandate and composition of the group, and the frequency of its meetings; secondly, the general direction and scope of the study; thirdly, the initial documentation to be made available; and finally, the financial resources required to maintain the group.

125. It was also essential that the working group should be kept informed of progress in the ILC's work in that sphere, and the Secretariat should also regularly inform the Board of any progress in the group's work, or at least of the most important developments.

126. Mr. KAZUHARA (Japan) said that he did not support the proposal to establish an open-ended working group, as it would not be productive at the present stage, however, monitoring of ILC's discussions should continue.

127. Mr. WILSON (Australia) said that his country supported the development of international law to cover questions of States' liability for damage arising from a nuclear accident. The existing conventions on liability covered private-law liability, thus overlooking the role of the State in the foundation, promotion, financing and regulation of the nuclear industry. An examination of international public-law liability for nuclear damage was clearly warranted. He therefore supported the establishment of the proposed working group, provided it could be funded within the normal budget.

128. If approved, the study should monitor closely the work of the ILC on the injurious consequences of acts not prohibited by international law.

129. Mr. ZHOU (China) said that, in the event of a major nuclear accident, the liability for damage to property in its vicinity should be a State liability; that subject was omitted from the Paris and Vienna Conventions, which contained only private-law provisions. China therefore had no objection to the Agency's proposal to set up an open-ended working group to study State liability for nuclear damage and explore the possibility of drafting new international legal instruments.

130. Mr. MORPHET (United Kingdom) said that his country did not favour a regime of State liability and held that questions of liability in the field of nuclear energy were most properly considered within the context of civil liability.

131. The extensive work done by the ILC had clearly demonstrated the complexity of State liability questions, and it would be premature to set up a working group before the ILC had reached its conclusions.

132. The safety and regulatory approach of the United Kingdom was based on the responsibility for safe operation of nuclear installations being placed firmly on the operator. That approach was reflected in his country's legislation and formed the basis for its provisions on third-party nuclear liability in line with its obligations under the Paris and Brussels Conventions.

133. The existing regime of civil liability provided a sound basis for making adequate compensation quickly available to those affected by a nuclear accident, while ensuring that operators remained fully responsible for the safe operation of their facilities. The United Kingdom would not wish to contemplate any proposition whereby the operator's responsibility for safe operation would in any way be diminished by making others, such as the State, responsible for the consequences of accidents.

134. Significant and encouraging progress had been made in bridging the gaps between the Paris and Vienna Conventions. The Joint Protocol to be discussed at the conference in September provided a basis for a wider and viable international regime. The priority should lie there, and the United Kingdom hoped for the widest possible adherence of States to the Joint Protocol on that occasion.

135. Mr. SMALL (Ireland) said that his country had often pointed out the shortcomings of the existing nuclear liability regime and the need for its improvement. Although he welcomed the progress made in reaching an agreement on the Joint Protocol between the Vienna and Paris Conventions, that agreement could not be sufficient. The Joint Protocol did not solve the generic problems of civil liability regimes, referred to many times at Board meetings, in document GOV/INF/550, and elsewhere. Nor did it clarify the inadequate definition of damage used in the existing conventions and the unfair consequences of limited liability.

136. Ireland therefore supported the proposal to establish a working group to study the issues involved and the scope of a new international legal instrument in that field. The work could be carried out in parallel with the ILC studies on similar, but wider, aspects of international liability, thus taking advantage of the substantial progress made by the ILC in that difficult field of international law.

137. Mr. YBAÑEZ (Spain) said that his country's authorities approved of establishing an international regime to govern State liability for nuclear damage, particularly in view of the Chernobyl accident and its consequences, including the transboundary dispersal of radioactive contamination which in some countries had produced damage quantifiable in financial terms.

138. The considerable obstacles to achieving that goal were evident from the comments by Spain and other countries contained in document GOV/INF/550. The views expressed were too divergent to provide a basis for rapid progress in that sphere, or even for progress less slow than that achieved by the ILC, which would of course have to continue its constructive work.

139. He welcomed the progress made by the joint IAEA/NEA working group of governmental experts in drawing up a Joint Protocol relating to the application of the Paris and Vienna Conventions. That was a first step towards establishing an international regime of State liability and he hoped that as many countries as possible would adhere to the Conventions and Protocol. To that end, a review of the liability limitations under the Vienna Convention would be useful.

140. The convening of the working group to consider State liability for nuclear damage proposed in document GOV/2306 should be deferred until experience had been gained with the application of the Joint Protocol. Although progress would be slower that way, better results would be achieved in the end.

GOV/OR.696 (provisional version)

MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION IN NUCLEAR SAFETY AND RADIOLOGICAL PROTECTION (GC(XXXI)/RES/472, 473, 474 and 475; Note to Governors of 18 May 1988 - Draft report to the General Conference)

(a) LIABILITY FOR NUCLEAR DAMAGE (GOV/2306, GOV/INF/550 and Add.1) (continued)

1. Mr. ZANGGER (Switzerland) stated that his country was among those Member States which had responded to the Director General's request and had made known their views on international liability for damage caused by a nuclear accident. Switzerland's position was given in the Annex to document GOV/INF/550, but he wished to stress once again the importance his country attached to that question. Switzerland supported all efforts to correct the inadequacies and shortcomings which - as the Chernobyl accident had shown - existed in law governing nuclear liability in the event of transboundary damage. The solution offered by the Joint Protocol to the Paris and Vienna Conventions was welcome.

2. Nevertheless, further examination of questions of international liability seemed appropriate. In that connection, he was in favour of the Secretariat's proposal to convene an open-ended working group of governmental experts. The work of the International Law Commission (ILC) on the general question of international liability should not prevent the Agency from conducting an independent, and swifter, study of the specific problem of nuclear damage.
3. Mr. SUCHARIKUL (Thailand) supported the recommendation made by the Secretariat in paragraph 5 of document GOV/2306 that an open-ended working group of governmental experts be convened. He noted that the views of his delegation on the question of international liability for damage arising from a nuclear accident were set out in document GOV/INF/550 and thanked the Secretariat for its excellent work in that area.
4. Mr. RODRIGUEZ (Venezuela) considered that, in view of the universal nature of the problem, international liability for damage arising from a nuclear accident should be examined over a broad and comprehensive front. The creation of a universally applicable global regime would be necessary to solve the problem. The harmonization of the Vienna and Paris Conventions was a very positive measure pending the establishment of an appropriate, comprehensive and universal legal regime, but it did not go far enough. Liability for nuclear damage had to be viewed from a global standpoint covering both civil liability and international liability of States. It was therefore essential that a broad and comprehensive international legal regime be set up, comprising a single instrument or several complementary texts, and covering all aspects of the matter. In that way, a universal legal regime would be made available to which the whole international community could adhere.
5. He approved the setting-up of a open-ended working group of governmental experts with a mandate to advise - inter alia - on the type and possibly the number of instruments it would be necessary to adopt in order to create that single regime.
6. Mr. SAVIC (Yugoslavia) said that, as a party to the Vienna Convention, his country supported the adoption of the Joint Protocol to the Paris and Vienna Conventions. It was clear that the Protocol did not institute a universal legal system and did not cover all eventualities, but it was useful to have a legal instrument even if its scope was limited to certain specific areas.
7. The elaboration of legal regulations on international liability for nuclear damage was an integral part of international co-operation in nuclear safety and radiological protection. The ILC had applied itself to the problem without great success, and he therefore supported the proposal to set up an open-ended working group of governmental experts to study the issues involved in international liability for damage arising from a nuclear accident. The creation of such a group under the auspices of the Agency would not be incompatible with the activities of the ILC.

8. Mr. KENNEDY (United States of America) said he would not make detailed comments on the item under discussion since the views of his Government were clearly set out in the records of previous meetings of the Board and in document GOV/INF/550. His Government had previously expressed doubts as to the appropriateness of the Agency's elaborating a legal instrument on international liability for damage arising from a nuclear accident and, having studied with interest the views expressed by a large number of Member States, had not changed its position. Governments were still divided in their views on what a new liability regime ought to include. There being no fundamental agreement on basic principles, such a difficult and complex question might embroil the Agency in costly work over a period of several years without any prospect of results. While the proposal to create an open-ended working group of governmental experts to study the question of State liability had been supported by many Member States, it had also met with opposition from - in particular - India, France, Japan, the United Kingdom and Spain.

9. Mr. SASTROHANDOYO (Indonesia) noted that the views expressed by the Board on the matter under discussion were somewhat divergent, which was an indication of the complexity of the problem. During the February meetings of the Board, his delegation had expressed its appreciation of the text of the draft Joint Protocol to the Vienna and Paris Conventions. That instrument covered some, but only some, of the problems arising from the consequences of nuclear accidents. Indonesia was not a party to either Convention, but was currently examining the various aspects of liability on the basis of the Vienna Convention. The latter did not cover all the problems raised by liability, and further exchanges of views would be necessary.

10. The creation of a group of experts, as recommended in paragraph 5 of document GOV/2306, was premature at the present time, since there was no consensus on the subject. It would be better to follow the deliberations of the ILC and to keep Member States informed of the progress made by it in that area.

11. In conclusion, his delegation requested the Secretariat to report periodically to the Board on the latest developments in the international liability field and to continue to undertake internal studies on that topic.

12. Mr. LASERNA-PINZON (Colombia) said that it was necessary to be both open-minded and prudent when studying the question of international liability for nuclear damage, since the matter was complex, new and controversial.

13. It had to be borne in mind that, whereas certain States were directly responsible for running nuclear power plants, private companies also operated such plants, and the latter could not be allowed to shift their responsibilities onto the State on whose territory they operated. In that respect, he agreed with the Governor from the United Kingdom that the liability of individuals should remain full and undiminished and that it could not be assumed by the State, since the latter might not be in a position to cope with it adequately. In any event, individual parties exploiting nuclear energy had to demonstrate their seriousness and sense of responsibility.

Moreover, they must not be content simply with meeting local criteria of technical competence in the safety area, but must also satisfy international criteria. Everyone had to be aware that the use of nuclear energy for peaceful purposes involved dangers and risks comparable with those of military uses and that good intentions were not enough in that sphere. The international community had no legal codes or codes of practice in that area which it might use to come to a decision on the matter. Consequently, the public and private sectors had to accept their responsibilities with regard to compensation of injured parties, whether they be individuals or legal entities. It was for each State to adopt such legislation as provided the best safeguards for its own purposes.

14. The matter of international consortia which provided equipment for nuclear power stations and training in the use and maintenance of that equipment should also be investigated. Such consortia were often negligent when it came to evaluating realistically the capacity to pay of those with whom they entered into contracts. New institutions and legal and economic concepts were required to regulate the various types of relations which the advent of nuclear energy had brought into being. It was the Board's task to identify and define the various features of international liability for damage arising from a nuclear accident, which task called for great patience and determination on its part.

15. Mr. OZMEN (Turkey) supported the proposal in paragraph 5 of document GOV/2306 regarding the convening of an open-ended working group of governmental experts to examine further the problems of international liability for damage caused by a nuclear accident.

16. The Chernobyl accident had shown up the shortcomings of the current liability regime. It was essential for a universal legal instrument on compensation for damage caused by a nuclear accident to be drawn up, and the work of the ILC on the general question of international liability should, of course, be taken into account in those efforts. Turkey looked forward to the adoption of the Joint Protocol harmonizing the Paris and Vienna Conventions and expressed the hope that its adoption would lead to an increase in the number of parties adhering to both Conventions.

17. Mr. SOWINSKI (Poland)[*] noted that his Government's position on the question of international liability for damage arising from a nuclear accident was described in the Annex to document GOV/INF/550. The question was, without doubt, complex and difficult, but its successful resolution would most certainly be of fundamental importance for the subsequent use of nuclear energy for peaceful purposes. The Agency, as the specialist international organization in the nuclear area, should continue its efforts to find a solution acceptable to all.

18. He endorsed the proposal contained in paragraph 5 of document GOV/2306 which, at the present stage, seemed the most appropriate action. However, if the Board considered the creation of the working group in question to be premature, he would like to see the Secretariat continue its work on that matter, with the prospect that the group would be set up at a later date.

[*] In the summary records for this series of meetings (GOV/OR.691-698), Member States which were not members of the Board of Governors but which were nevertheless invited to take the floor under Rule 50 of the Board's Provisional Rules of Procedure are indicated by an asterisk.

19. Mr. van GORKOM (Netherlands)[*] said that the promotion of the safety of nuclear installations around the world was, and should remain, one of the main activities of the Agency, since the credibility and acceptance by the public of nuclear energy were at stake. He therefore welcomed the acceptance by the Board of the Spanish delegation's proposal to include in the summing-up of the discussion on the programme and budget a sentence on nuclear safety and radiation protection.

20. It was of prime importance that Member States continue their efforts to ensure the safety of nuclear energy. Under the Agency's nuclear safety programme, experts from Member States had collaborated for several years to draw up internationally applicable nuclear safety standards. Since the Chernobyl accident, those experts had produced a set of basic safety principles, the NUSS Codes had been revised, and a programme had been instituted to review and update part of the nuclear safety guides. Implementation at a national level of the NUSS Codes of Practice was the responsibility of the nuclear safety authorities of each Member State, but other States and the nuclear industry as a whole had a vested interest in seeing that safety standards were applied throughout the world. Nuclear safety was a common responsibility.

21. The Director General had invited governments to state their views on the updated NUSS Codes, a proposal which his delegation fully supported. The NUSS Codes contained valuable advice from leading international experts, and it would be appropriate to know whether governments intended to make use of that advice. Governments could send a letter to the Director General individually, stating that they accepted the Codes and that they had decided to incorporate them into their national regulations. Moreover, the General Conference could formally endorse the NUSS Codes and possibly, at a later stage, the principles compiled by the International Nuclear Safety Advisory Group (INSAG), which would underline the importance that Member States attached to worldwide nuclear safety and the Codes. For its part, his Government was currently taking steps to incorporate the NUSS Safety Guides and Codes, and the updates thereof, into its national nuclear safety regulations.

22. His Government supported the Joint Protocol linking the Paris and Vienna Conventions and hoped it would be accepted and signed by as many States as possible in September. Further work was needed to strengthen the international nuclear liability system - certain aspects of the civil liability regime which seemed to be in need of updating should be critically reviewed and the role of the State in international liability questions should be examined. He endorsed the Director General's comments on that subject in his opening statement. However, all those efforts would have much greater effect if more States signed the existing conventions on nuclear liability.

23. Mr. LAMPARELLI (Italy)[*], recalling that the Italian Government, like many others, recognized the necessity of establishing a comprehensive nuclear liability regime which would cover both civil liability and State liability, said he supported the setting-up of a working group as quickly as possible. The existing conventions on civil liability did not meet the expectations of modern society. He was fully aware, however, of the objections which certain countries had to the elaboration of a new international legal instrument on that subject, and for that reason he was in favour of limiting the mandate of the working group, for the time being, to a preliminary discussion of the main questions that would need to be clarified before such an instrument could be drawn up. That would make it easier to reach a general consensus at the appropriate time.

24. The CHAIRMAN said that it was clear from the discussion that there was no consensus at present on the mechanism for further considering, within the Agency, the question of international liability for damage arising from a nuclear accident. In particular, there was no consensus at present for the establishment, by the Director General, of an open-ended working group of governmental experts.

25. Several speakers had indicated that, in their opinion, such a group should not be set up at present – some of them expressing a preference for civil liability regimes as the most appropriate approach and stating that they looked forward to wider adherence to the existing civil liability regimes, soon to be harmonized through the adoption of a Joint Protocol. On the other hand, many speakers had favoured the establishment of a group of governmental experts to identify, as a first step, all questions of principle pertaining to international liability for nuclear damage, including the scope of a new international legal instrument, and felt that work on that matter should be undertaken even though the ILC was engaged in a study of the wider aspects of State liability.

26. In the light of the divergent views expressed, he considered that the time was not ripe for setting up the proposed working group of governmental experts. That did not mean, of course, that within the Secretariat itself work should not continue on the subject or that the Secretariat could not explore – with interested delegations – what the problems were and what solutions might be sought. Also, he trusted that the Secretariat would – when appropriate – report any significant developments likely to facilitate examination of the matter at a later Board session.

27. The Chairman's summing-up was accepted.

(b) REVISION OF THE NUSS CODES (GOV/2340)

28. Mr. KONSTANTINOV (Deputy Director General, Head of the Department of Nuclear Energy and Safety) said that, in response to a request from the Governor from the United Kingdom, he wished to make clear the relationship between the NUSS Codes and the INSAG document on Basic Safety Principles for Nuclear Power Plants, published as Safety Series No. 75-INSAG-3.

29. There was no conflict between the Codes and that document: each had taken from the other, and they differed only in the presentation of their content, since they were intended for different purposes. The INSAG report had a prospective character, constituting an integrated set of safety principles aimed at enhancing safety in the future; the NUSS Codes reflected, in the form of standards, generally accepted safety principles for the construction and operation of existing nuclear power plants.

30. The INSAG document was easy to read. It gathered together in one place all safety matters and was a good management information document. It was not legally binding. The NUSS Codes were detailed documents on specific subjects and were aimed at professionals; they could be used as regulatory documents, and some already were in certain countries.

31. The INSAG document reflected the opinions of a number of well-known specialists from various countries; the NUSS Codes were submitted to Member States for comments and approval.

32. All the safety principles contained in the INSAG document – including those on severe accidents – featured in the revised NUSS Codes. Both the Codes and the INSAG document followed the recommendations of the International Commission on Radiological Protection (ICRP). Also, the NUSS documents would be revised on the basis of the revised NUSS Codes and their use and adaptation in Member States would be encouraged. The Agency was interested to see how the nuclear community in particular would react to the INSAG document, which might in the future be included in a revised structure of Safety Series documents.

33. Mr. AL-KITAL (Iraq) welcomed the revised and updated NUSS Codes, which were the successful outcome of the praiseworthy efforts of the Secretariat and the Nuclear Safety Standards Advisory Group (NUSSAG). The NUSS Codes played an important part in strengthening nuclear safety and the safe use of nuclear energy for the benefit of humanity and development.

34. It was regrettable, however, that a number of countries – including some which were exporters of nuclear technology – were still hesitating over whether to accept the NUSS Codes and incorporate them into their national legislation. The two recommendations in paragraph 5 of document GOV/2340 were contradictory with regard to their implications for the implementation of nuclear power programmes in developing countries which requested Agency assistance. Such countries would have to undertake to take the Codes into account in order to obtain such assistance. But what would happen if an industrialized, exporting country refused to comply with NUSS in respect of, for example, quality assurance in the field of nuclear power plant safety? What could be done then by the developing country seeking assistance? In order to resolve the contradiction and eliminate the discrimination between exporting (as a rule, industrialized) and importing (as a rule, developing) countries, his delegation proposed that in sub-paragraph 5(a) the words "as appropriate" be replaced by "when possible". He was prepared to withdraw the proposal if it were recommended that the revised NUSS Codes be applied as minimum standards in all countries.

35. Mr. GOMAA (Egypt), after congratulating the Secretariat and NUSSAG on the work they had done, expressed the hope that the regulatory authorities of all countries, both developing and industrialized, would accept the NUSS Codes, thus strengthening nuclear safety and international co-operation in that area. Egypt approved the revised Codes, in their English version at least, and reserved its position on the Arabic version which the competent authorities in Egypt had not yet had time to examine.
36. His delegation expressed reservations over the wording of the recommendation contained in sub-paragraph 5(a) of document GOV/2340 and supported the Iraqi proposal on that matter. That proposal would permit the more flexible application of the NUSS Codes, which was necessary in view of the time required to incorporate them into the legislation of Member States, which held the main responsibility in that area.
37. His delegation noted that the Secretariat had not provided any information on the implementation of resolution GC(XXXI)/RES/474 concerning the sharing of nuclear safety-related information. As that was a very important question, he hoped that Member States would intensify their co-operation in that field and that the Secretariat would keep the Board informed of progress.
38. Mr. SCHAAD (Federal Republic of Germany) said he was pleased that the decision to refine nuclear safety standards taken by the Board during a special meeting held on 21 May 1986, after the Chernobyl accident, at the request of the Federal Republic of Germany had culminated in the revised NUSS Codes. His delegation wished to thank NUSSAG for the work it had done. The NUSS Codes, together with the Basic Safety Principles for Nuclear Power Plants prepared by INSAG, would not only help authorities in Member States to exercise their national functions, but would also undoubtedly play an important international role.
39. His Government supported the Agency's efforts to gain acceptance of the NUSS Codes and agreed with the content of the draft letter which, as NUSSAG had proposed during its meetings in March 1988, Member States could address to the Director General to confirm their intention of voluntarily taking the Codes into account. For its part, his Government would send such a letter in due course. Its statement of principle that the national requirements in the Federal Republic, although different in detail, were generally compatible with, or even more stringent than, the NUSS Codes, made clear the relationship between national rules or regulations and the NUSS Codes.
40. Mr. TETENYI (Hungary) said that, since the preparation of the first NUSS documents, his country had considered that they would play an important role in the elaboration of national nuclear safety regulations. He therefore wished to thank the Agency and NUSSAG for revising and updating the NUSS Codes, which progress in nuclear technology, experience gained and safety requirements had made necessary.

41. On the basis of its own experience, Hungary felt that the NUSS Codes should be regarded not as legally binding documents but as guidelines. The five revised Codes would undoubtedly be of great assistance to the Hungarian authorities when revising the national regulations. In conclusion, he approved the action recommended in paragraph 5 of document GOV/2340.

42. Mr. MORPHET (United Kingdom), after highlighting the important place that the promotion of nuclear safety throughout the world now occupied in the Agency's activities, said that all Member States which had nuclear power programmes should be able to embrace the NUSS Codes in their revised and updated form.

43. The United Kingdom reiterated its commitment to the principle of voluntary adherence to the standards contained in the NUSS Codes, it being understood that safety was the responsibility of each State. The revised and updated NUSS Codes were sufficiently flexible to be applied to different technologies and different national practices, while at the same time maintaining basic standards. His delegation agreed with the observation made by the Director General in his Foreword to the Codes that although they established an essential basis for safety, they might require the incorporation of more detailed requirements in accordance with national practice.

44. His delegation was grateful to the Deputy Director General for Nuclear Energy and Safety for the assurance he had given that there was no conflict between INSAG's Basic Safety Principles and the revised NUSS Codes, as well as for his explanation of the relationship between the different publications. The idea of establishing a hierarchy of safety publications, with the INSAG report becoming a "safety fundamentals" document, deserved further study. Finally, his delegation would appreciate receiving information on the future activities of INSAG, as that group had accomplished some remarkable work to date.

45. Mr. ZHOU (China) expressed his satisfaction with the work done by the Secretariat and experts from different countries in revising the NUSS Codes. Document GOV/2340 fully reflected the experience gained in recent years, including that from the Three Mile Island and Chernobyl accidents; among the topics dealt with were technical performance, operational safety, quality assurance, criteria relating to the level of competence and training of nuclear power plant personnel, action to be taken in emergency situations, emergency preparedness, and the regulation of nuclear safety by independent bodies.

46. His Government attached great importance to the NUSS Codes, in the revision of which Chinese experts had actively participated. His delegation was convinced that the revised NUSS Codes would help raise the level of safety in all countries concerned and therefore approved document GOV/2340.

47. Mr. YBAÑEZ (Spain) welcomed the revised and updated NUSS Codes, which had been completed at almost the same time as INSAG's Basic Safety Principles. That major undertaking had been accomplished very quickly, which was important because of the pressing need — from the standpoint of improving

regulatory practices – to have available guidelines which took into account the experience gained since the inception of the NUSS programme, and in particular the results of the analysis of the Chernobyl accident. The nuclear community had thus been provided with a basis for harmonizing fundamental nuclear safety concepts throughout the world and for translating them into practical guidelines.

48. His delegation therefore approved the measures recommended in paragraph 5 of document GOV/2340 and hoped that they would yield results in the immediate future. He stressed that his delegation's approval was for the English version of the revised Codes only and that it reserved its position on the Spanish version, which there had been insufficient time to study in detail. Finally, he had no objection to the proposal made by the Iraqi delegation.

49. Mr. GUYER (Argentina) observed that, thanks to the direct or indirect participation of Argentine experts in the revision process, his country's authorities had been able, despite the limited time available to

them, to make an in-depth analysis of the English version of document GOV/2340. His delegation endorsed the basic concepts contained in the English version of the revised and updated NUSS Codes and, in view of their importance for nuclear activities throughout the world, had no objection to their being adopted by the Board.

50. It should be emphasized that, since the Spanish version of the document had been issued only on 3 June, his delegation's approval of the concepts set out in the English version of the five revised NUSS Codes did not automatically extend to the Spanish version. It reserved the right to make any comments on that version that might be necessary at a later date.

51. Mr. ERRERA (France) said he wished first to commend NUSSAG for the competence and dedication it had shown in carrying out its task. France had actively participated in the original preparation of the NUSS Codes and in their subsequent revision. As the Director General had stressed in his Foreword to the revised Codes and as the Deputy Director General for Nuclear Energy and Safety had indicated in his introductory remarks, those Codes constituted a set of reference documents and reflected a consensus among international safety experts. The intention was that they should be used by Member States to attain a high level of safety. Furthermore, as the Governor from the Netherlands had noted, they were a good example of where the Agency should be transparent in conducting its safety activities: while it was important for the Agency to be active in the safety field, it was even more important for it to publicize that fact, especially when it did its work well.

52. Recalling the position outlined by his delegation at the Board's meetings in June 1986, he noted that France had taken the NUSS Codes into account in preparing its national regulations and in the design, construction and operation of its nuclear installations, and that it had urged all the Agency's Member States to commit themselves to applying those reference documents at the national level. His delegation thus felt at liberty to point out that the decision to give such an undertaking - with regard both to form and principles - naturally rested with each country, and that the NUSS Codes could not be considered binding international regulations.

53. Subject to those comments, his delegation was prepared to approve the English version of the revised NUSS Codes. As the French version had only just been issued, his country's experts had not yet been able to check the translation, a very delicate matter in an area where terminology and semantics were particularly important. It was for that reason, and that reason alone, that his delegation was regrettably making its approval subject to that reservation, which would, of course, be withdrawn once the checking of the French text was completed.

54. The revision of the NUSS Codes, the formulation of general safety principles by INSAG and the development of the Operational Safety Review Team (OSART) programme - to take but a few examples - were precisely the sort of actions in the safety field which it was appropriate for the Agency to carry out and for which the Agency could count on the full support of his delegation.

55. Mr. SMALL (Ireland) said his delegation welcomed the revision and publication of the NUSS Codes and endorsed the action recommended in paragraph 5 of document GOV/2340.

56. Bearing in mind earlier discussions on the application of safety standards, it was to be hoped that all Member States with nuclear installations would confirm that the NUSS Codes would be adopted and applied as minimum standards in their nuclear programmes. Such a measure could only enhance the image of the Agency's nuclear safety activities and reassure the public that all countries with nuclear facilities were maintaining appropriate safety standards.

57. Mr. GAP TAEK KWON (Republic of Korea) commended the excellent work done by the Secretariat in revising and updating the NUSS Codes, which constituted an extremely important set of reference material and which encouraged the adoption of safety measures, particularly in developing countries.

58. His delegation was willing to accept the proposal that the Board authorize the Director General to promulgate the revised NUSS Codes and to recommend that all Member States with nuclear power programmes take the Codes into consideration in their national regulations. However, it urged the Director General to exercise his authority carefully; the Secretariat should give Member States the opportunity to make a thorough study of the content of the revised NUSS Codes and should take into account any comments they might make so as to avoid any unnecessary confusion and anxiety among Member States. The NUSS Codes were not binding, but they had a major impact on national safety regulations. A disciplined approach was therefore desirable.

59. Mr. DOSHO (Japan) expressed his delegation's support for the recommendation in paragraph 5 of document GOV/2340. In his Government's view, nuclear safety criteria should be the responsibility of each State, and the NUSS Codes should not be regarded as legally binding, but should be applied with due consideration for the circumstances of each State.

60. Mr. KENNEDY (United States of America) congratulated the Agency on the rapid and thorough way that it had carried out its mandate to review and update the NUSS Codes after the Chernobyl accident. The United States had supported that effort, which was part of the Agency's nuclear safety programme, and had designated experts to the working groups and NUSSAG. His delegation could join a consensus on the action recommended in paragraph 5 of document GOV/2340, while stressing that nuclear safety was and should remain a national responsibility and that the NUSS Codes could not replace national regulatory standards.

61. Mr. SEMENOV (Union of Soviet Socialist Republics) said that, as the revision and updating of the NUSS Codes had been carried out with the active participation of experts from Member States, including States which were advanced in the nuclear energy field, it had been possible to incorporate all the experience accumulated in the design and operation of nuclear power plants, as well as in the regulatory area, and thus to reconcile national standards with those recommended by the Agency. As for countries which were

embarking on a nuclear power programme, the Agency's standards should be a valuable point of reference for them to use in assessing the level of nuclear safety attained so far at the national level.

62. He wished to draw attention to the important contribution made by NUSSAG, which had been established in 1988. NUSSAG should continue its work to ensure that the Agency's Codes and safety guides kept abreast of technological developments, took into account experience gained and remained consistent with the results of INSAG's work on the Basic Safety Principles.

63. Mr. HIREMATH (India) welcomed the revised NUSS Codes set out in Annexes 1-5 of document GOV/2340. Those Codes were appropriate safety guidelines for use in Agency-assisted projects. Also, States which were developing or revising their own regulatory practices could find valuable guidance in the NUSS Codes. The Codes could also serve as useful reference material for assessing nuclear power plant safety.

64. Like other countries with a nuclear programme, India had established a nuclear regulatory body which enforced rigorous safety standards. Despite differences in detail, India's current practice was generally consistent with the NUSS Codes.

65. It was clear from sub-paragraph 5(b) of document GOV/2340 that there was no intention of making the NUSS Codes binding on any Member State. He was convinced, however, that it was in everyone's interest to attain the high safety objectives set out in the revised Codes, and urged the Agency to continue its useful work in that important area.

66. Mr. ALER (Sweden) said his delegation accepted the recommendations in paragraph 5 of document GOV/2340. It went without saying that the NUSS standards should be regarded as minimum standards. As the Board was aware, the Swedish parliament had decided in 1980 that the country's nuclear plants should be subjected to a thorough review every 8-10 years based on the requirements prevailing at the time. The NUSS Codes should continue to be revised to ensure that they reflected experience gained and changing views in the important field of nuclear safety.

67. Mr. ZANGGER (Switzerland) expressed his delegation's gratitude to the Division of Nuclear Safety and to all the international experts who had taken part in the revision of the five NUSS Codes for the substantial work they had accomplished in a relatively short time. The Swiss safety authorities were satisfied with the outcome and his delegation was thus able to approve the content of the revised Codes, which it considered to represent a minimum world technical consensus which Governments should, to the extent possible, strive to go beyond. At all events, the revised NUSS Codes were a considerable improvement on the safety level prevailing previously.

68. Science and technology being dynamic in nature, the NUSS Codes should not be regarded as frozen in their current form. It was therefore essential for NUSSAG to continue to assess technological developments in order to determine when a further revision of the NUSS Codes was needed.

69. He was fully satisfied with the explanation provided by Mr. Konstantinov on the relationship between the Basic Safety Principles and the Codes, a matter which his delegation had raised at the Board's meetings in February. Although the revised Codes applied to new nuclear power plants, Member States should make sure that, where possible, older nuclear power plants were brought up to the level of safety foreseen in the revised Codes.

70. Ms. LASSEN (Denmark)[*] said that her delegation fully supported the revised NUSS Codes before the Board, but wished to make two comments on them.

71. In the covering note to document GOV/2340, it was proposed that the Board authorize the Director General to recommend to all Member States with a nuclear power programme in place or in preparation to take the Codes into consideration when formulating and implementing national regulations and carrying out actions concerning the safety of nuclear power plants. Her delegation wished to emphasize once again that the question of bilateral agreements and that of adherence to basic safety standards were interrelated. The right to request consultations on matters concerning safety was an important provision in all the bilateral agreements which Denmark – and probably all other Member States – had concluded thus far. Such consultations could only be useful if they were based on safety standards which both parties observed. It was therefore necessary for the Director General, in his recommendation, also to request Member States to notify the Agency of their adherence to the five revised NUSS Codes. The Director General should inform Member States once a year of the status of notifications received. Furthermore, her delegation fully supported the proposal by the Netherlands that the Codes be formally approved by the General Conference.

72. With regard to the Code on Siting for Safety of Nuclear Power Plants, her delegation had requested the Secretariat to include in paragraph 204 a reference to the need for holding bilateral consultations in cases where the siting of a nuclear power plant could have significant effects on nearby countries. She assumed that request had not been satisfied because the Agency considered that the expression "international consultation" which appeared in the text, covered the concept of bilateral consultation.

73. Mr. ALESSI (Italy)[*] said his country had actively participated in the revision of the NUSS Codes and that it was satisfied with the results. He wished, however, to reiterate his country's position: it should be possible, through an appropriate mechanism for adherence to those standards, to arrive at a common regime which would ensure an adequate level of international harmonization. As the Board was aware, Italy was in favour of States making a formal commitment by subscribing to a multilateral convention.

74. The DIRECTOR GENERAL, replying to the Governor from Iraq, who had drawn the Board's attention to the fact that, according to sub-paragraph 5(a) of document GOV/2340, the NUSS Codes were to be applied to operations assisted by the Agency, whereas sub-paragraph 5(b) simply recommended that Member States take the Codes into consideration in formulating and implementing national regulations, pointed out that the difference in language implied no distinction between developed and developing countries. Those two groups of countries were being asked to take the Codes into consideration in their national regulations. No more was being asked of developing countries than of developed countries. In the case of operations assisted by the Agency, the Codes were to be applied by both groups, although developing countries were more likely to seek Agency assistance.

75. The Governor from Iraq had indicated that he would find it easier to agree to the action recommended in sub-paragraph 5(b) of document GOV/2340 if the revised Codes were intended to be applied as minimum standards in all countries. It should be recalled in that connection that a lot of discussion had taken place about the character of the NUSS Codes. He had earlier suggested that Member States inform him in writing of their intention of applying those standards. Since it had not been possible to agree on a standard letter, however, Member States might like to inform him in their own words how they intended to apply the revised NUSS Codes.

76. Clearly the Codes were not legally binding. They had been referred to in many different ways during the discussions. The Governor from Switzerland had spoken about a minimum world technical consensus and the Governor from Sweden about minimum standards. The Governor from India had said that Member States should have regulations consistent with the NUSS Codes. There seemed to be general agreement that the Codes were not legally binding, but that national regulations should be consistent with them. As was indicated at the foot of page 1 of the Foreword to the revised Codes, the NUSS Codes might be considered to be the basic requirements which nuclear power plants must satisfy. The Code on Design for Safety of Nuclear Power Plants referred to "essential requirements". The expressions "essential requirements" and "basic requirements" would perhaps be in line with the content of sub-paragraph 5(b) and were very close to the term "minimum standards" suggested by the Governor from Iraq, which expression had been avoided because of some Member States' opposition to it. He hoped, with those clarifications, the Board would approve the recommended action.

77. Mr. KONSTANTINOV (Deputy Director General, Head of the Department of Nuclear Energy and Safety) said it was his understanding that the revised NUSS Codes met with the approval of the Board members who had spoken and that those who had reserved their positions had done so only because there had not been time for a thorough study of the non-English versions. As to the question asked by the Governor from the United Kingdom, the Secretariat had received INSAG's summary report on its past activities and its recommendations for the future and would carefully study them, especially those relating to the operational safety of power plants, quality assurance and the human factor. The Governor from the Soviet Union had stressed the need for the work of NUSSAG to be properly co-ordinated with the future activities of INSAG, and the Secretariat would, of course, ensure that that was done.

78. Mr. AL-KITAL (Iraq) thanked the Director General for the explanation which he had given. However, it was clear that, when a developing country requested assistance at any stage in the construction of a nuclear power plant, it would be legally obliged to accept the NUSS Codes; that was discriminatory.

79. The CHAIRMAN said he assumed that there was general support in the Board for the revised NUSS Codes annexed to document GOV/2340 and that the Board therefore wished to take the action recommended in paragraph 5 of the cover note. It was understood that the discussions and decision of the Board were based on the English version of the revised NUSS Codes.

80. The Chairman's summing-up was accepted.

(c) NORDIC CO-OPERATION AGREEMENT ON ASSISTANCE IN CONNECTION WITH A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY (GOV/2354)

81. Mr. KENNEDY (United States of America) said that, as his delegation had only received document GOV/2354 a few days previously, it would like consideration of that question to be postponed to the Board's meetings in September.

82. The CHAIRMAN said that, if there were no objections, he would assume that the Board accepted the suggestion of the Governor from the United States that consideration of that question be deferred until the Board's next series of meetings.

83. It was so decided.

