



International Atomic Energy Agency

**GENERAL CONFERENCE**GENERAL Distr.  
Original: ENGLISH

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Forty-sixth regular session  
Item 13 of the agenda  
(GC(46)/19)

**MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION  
IN NUCLEAR, RADIATION, TRANSPORT AND WASTE SAFETY**

Resolution adopted on 20 September 2002 during the 10<sup>th</sup> plenary meeting

**A.****MEASURES TO STRENGTHEN INTERNATIONAL CO-OPERATION  
IN NUCLEAR, RADIATION AND WASTE SAFETY**The General Conference.

- (a) Recalling resolution GC(45)/RES/10 on measures to strengthen international co-operation in nuclear, radiation, transport and waste safety,
- (b) Recognizing that a global nuclear, radiation and waste safety culture is a key element of the peaceful uses of nuclear energy and that continuous efforts are required in order to ensure that the technical and human elements of safety are maintained at the optimal level,
- (c) Stressing the important role of the IAEA in enhancing nuclear, radiation and waste safety through its various safety programmes and initiatives and in promoting international co-operation in this regard,
- (d) Noting with appreciation document GC(46)/11 (with its Addenda) and document GC(46)/12, containing the Secretariat's responses to nuclear, radiation, transport and waste safety issues of concern to Member States,
- (e) Noting with satisfaction the report of the Second Review Meeting of the Contracting Parties to the Convention on Nuclear Safety, particularly the conclusion that significant progress had been made since the First Review Meeting in the areas of legislation; regulatory independence; financial resources for regulators and operators; implementation of safety improvements in installations built to earlier safety standards; and emergency preparedness,
- (f) Looking forward to the First Review Meeting of Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, to be held in Vienna from 3 November 2003,

(g) Emphasizing the importance of education and training in establishing and maintaining an adequate radiation protection and nuclear safety infrastructure, and noting the actions taken by the Secretariat towards developing strategies for education and training in nuclear, radiation and waste safety, and

(h) Noting the importance of Member States taking the necessary steps to develop and improve their national nuclear, radiation and waste safety legal infrastructures,

## 1.

### General

1. Encourages the Secretariat to focus its efforts relating to nuclear, radiation, and waste safety on mandatory activities and on technical areas and regions where the need for improvement is greatest;

2. Urges the Secretariat to complete the corpus of IAEA safety standards and requests the Director General to report to the Board of Governors on their development and application;

3. Welcomes the progress made by the Secretariat in helping Member States to put in place sustainable programmes of education and training in nuclear, radiation, transport and waste safety, as outlined in Attachment 7 to document GC(46)/11;

4. Requests the Director General to continue the current programme of legislative assistance to Member States, to assist them in improving their national infrastructures for nuclear installation, radiation and waste safety;

5. Encourages Member States to continue requesting IAEA safety review services in order to enhance nuclear, radiation and waste safety, including Integrated Safety Evaluations;

## 2.

### Nuclear installation safety

6. Appeals to all Member States, particularly those operating, constructing or planning nuclear power reactors, which have not yet taken the necessary steps to become party to the Convention on Nuclear Safety to do so;

7. Calls on the Contracting Parties to the Convention on Nuclear Safety to take steps to further improve the implementation of their obligations and to further enhance nuclear safety, particularly in those areas identified by the Second Review Meeting of Contracting Parties as warranting special attention;

8. Welcomes the progress made in preparing a Code of Conduct on the Safety of Research Reactors and encourages Member States to participate in the next open-ended meeting of technical and legal experts, to take place in Vienna from 16 to 20 December 2002;

9. Urges those Member States with research reactors which have not yet responded to the Secretariat's questionnaire on the safety status of their research reactors to do so as soon as possible;

10. Welcomes the assistance provided by the Secretariat in monitoring and improving the safety of research reactors, particularly those subject to IAEA Project and Supply Agreements, as outlined in Attachment 1 to document GC(46)/11, and encourages relevant Member States to collaborate closely with the Secretariat in facilitating such assistance;

11. Welcomes the Secretariat's continuing work on developing safety standards for fuel cycle facilities;
12. Encourages the Secretariat to continue assisting Member States, subject to the availability of resources, in reviewing the safety implications of the continued operation of nuclear installations beyond the planned operating period, focusing on design, process and technology issues;
13. Encourages participation by relevant high-level experts in the *International Conference on Safety Culture in Nuclear Installations*, being held in Rio de Janeiro from 2 to 6 December 2002;

### 3.

#### **Radiation safety**

14. Welcomes the progress being made by the Secretariat toward implementing, in conjunction with Member States, the Revised Action Plan for the Safety and Security of Radiation Sources, as outlined in Attachment 2 to document GC(46)/11;
15. Welcomes, in the light of increased international concern about the potential misuse of radioactive sources, the work done during 2002 to strengthen the *Code of Conduct on the Safety and Security of Radioactive Sources*, and notes that a draft revised Code is expected to be put to the Board of Governors during 2003;
16. Endorses the decision of the Board of Governors to approve the International Action Plan for the Radiological Protection of Patients, based on the findings, recommendations and conclusions of the 2001 Malaga Conference on the issue, as described in the Attachment to document GC(46)/12, and requests the Secretariat to implement it, subject to the availability of resources;
17. Requests the Director General to look into the possibility of the IAEA co-operating with the International Labour Organization and other relevant bodies in formulating and implementing, subject to the availability of resources, an international action plan for occupational radiation protection in the light of, inter alia, the findings and recommendations of the *International Conference on Occupation Radiation Protection* held in Geneva from 26 to 30 August 2002;
18. Takes note of the steps taken by the Secretariat, pursuant to resolution GC(44)/RES/15, towards developing radiological criteria for long-lived radionuclides in commodities, described in Attachment 3 to document GC(46)/11;
19. Welcomes the steps taken by the Secretariat to assist in developing an international framework for the protection of the environment from ionizing radiation and looks forward to the *International Conference on Protection of the Environment from the effects of Ionizing Radiation*, which is to take place in Stockholm from 6 to 10 October 2003;

### 4.

#### **Waste safety**

20. Appeals to all Member States which have not yet taken the necessary steps to become party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management to do so in time to attend the First Review Meeting of the Contracting Parties, to be held in Vienna from 3 November 2003;

21. Encourages all Contracting Parties to the Joint Convention to ensure that national reports for the First Review Meeting are submitted to the Secretariat not later than 5 May 2003;
22. Welcomes the progress being made by the Secretariat in implementing actions relating to the safety of radioactive waste management, as described in Attachment 5 to document GC(46)/11;
23. Welcomes the recent progress made by several Member States towards achieving long-term solutions for the storage of spent fuel and high-level radioactive waste;
24. Encourages participation by relevant high-level experts in the *International Conference on Issues and Trends in Radioactive Waste Management*, which is to take place in Vienna from 9 to 13 December 2002;
25. Encourages participation by relevant high-level experts in the *International Conference on Safe Decommissioning for Nuclear Activities*, which is to take place in Berlin from 14 to 18 October 2002 and urges Member States to nominate representatives as soon as possible; and

**5.**

26. Requests the Director General to report, as appropriate, to it at its forty-seventh (2003) regular session on developments relevant to this resolution in the intervening period.

**B.  
TRANSPORT SAFETY**

The General Conference,

- (a) Noting with appreciation the report on Transport Safety contained in Attachment 4 to document GC(46)/11,
- (b) Welcoming as opportune the convening by the Secretariat of the 2003 International Conference on the Safety of Transport of Radioactive Material, to be held in Vienna from 7 to 11 July 2003,
- (c) Mindful that the safety of the transport of radioactive materials entails a range of important issues, such as those agreed upon for the programme of the Conference listed in Attachment 4 to document GC(46)/11, welcoming the arrangements in place for the Conference and looking forward to a constructive discussion of the issues,
- (d) Noting with satisfaction the progress that has been made during 2002 in reviewing and revising as necessary the Agency's Transport Regulations,
- (e) Noting the conclusions of the final report on the co-ordinated research project on the severity, probability and risk of accidents during the maritime transport of radioactive materials by experts from the United Kingdom, the United States, France, Sweden, Japan and Germany which was published in July 2001 (TECDOC-1231),

- (f) Noting concerns about a potential accident or incident during the transport of radioactive materials by sea and about the importance of the protection of people, human health and the environment as well as protection from actual economic loss, as defined in relevant international instruments, due to an accident or incident,
  - (g) Recalling maritime, river, and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments,
  - (h) Recalling that States have under international law the obligation to protect and preserve the marine environment,
  - (i) Stressing the importance of international co-operation to enhance the safety of international navigation,
  - (j) Recalling that in previous resolutions the General Conference has encouraged Member States to make use of the Transport Safety Appraisal Service (TransSAS),
  - (k) Recalling resolution GC(45)/RES10, and the previous resolutions which invited Member States shipping radioactive materials to provide, as appropriate, assurances to potentially affected States, upon their request, that their national regulations take into account the Agency's Transport Regulations and to provide them with relevant information relating to shipments of such materials. The information provided should in no case be contradictory to the measures of physical protection and safety,
  - (l) Noting paragraph 33.bis of the World Summit on Sustainable Development's Plan of Implementation, agreed in September 2002,
  - (m) Recognizing concerns about the potential for damage to arise in the event of an accident or incident during the maritime transport of radioactive materials, including pollution of the marine environment, recognizing also the importance of having in place effective liability mechanisms, and believing that the principle of strict liability should apply in the event of nuclear damage arising from an accident or incident during the maritime transport of radioactive materials,
  - (n) Noting the importance of security for the safe maritime transport of radioactive materials and the strong concern of some States in this regard, and stressing the need to take adequate measures to deter or defeat terrorist and other hostile or criminal actions directed against carriers of radioactive materials, in accordance with international law, and
  - (o) Emphasizing the importance of the Agency education and training programmes for increasing the levels of safety in the maritime transport of radioactive materials,
1. Urges Member States to participate in the 2003 International Conference on the Safety of Transport of Radioactive Material, with a view to addressing in a comprehensive way and following up as necessary all issues contained in the agreed Conference programme, as listed in Attachment 4 to document GC(46)/11, and requests the Secretariat to report to the 2003 General Conference on its outcomes;
  2. Urges Member States that do not have national regulatory documents governing the transport of radioactive materials to adopt such documents expeditiously, ensuring that they are in conformity with the 1996 edition of the Agency's Transport Regulations, and urges Member States whose national regulatory documents governing the transport of radioactive

materials are not in conformity with the 1996 edition of the Agency's Transport Regulations to bring them into conformity with the 1996 edition as soon as possible;

3. Welcomes the fact that implementation of the 1996 edition of the Agency's Transport Regulations became mandatory on 1 January 2002 under the International Maritime Organization's International Maritime Dangerous Goods Code, having already become mandatory on 1 July 2001 in respect of air shipments of radioactive materials under the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air;
4. Calls for continued efforts, at the appropriate international and regional levels, to examine and optimize measures and international regulations relevant to the international maritime transport of radioactive materials;
5. Expresses satisfaction with the progress that has been made in establishing a schedule for regular reviews of the Agency's Transport Regulations with a view to issuing a revised or amended edition, as necessary, every two years, beginning in 2003, consistent with the schedules of the United Nations Committee of Experts on the Transport of Dangerous Goods and of the relevant international modal organizations;
6. Commends those Member States which have already made use of TranSAS and the Secretariat for its actions in responding to requests for TranSAS missions, encourages other Member States to avail themselves of TranSAS with a view to achieving the highest levels of safety during the transport of radioactive materials, requests the Secretariat to ascertain whether there are available spare resources to satisfy further requests for TranSAS missions from developing Member States, encourages Member States which have already made use of TranSAS missions to put into effect the resulting recommendations and suggestions, as well as to share their good practices as identified with other Member States, welcomes the fact that in 2002 one Member State, the UK, offered representatives of concerned States the opportunity to accompany TranSAS missions as observers, invites other Member States to adopt this practice and encourages other Member States to improve their transport practices based on recommendations and suggestions from TranSAS missions;
7. Welcomes the TranSAS missions to Brazil in April 2002 and to the United Kingdom in June 2002, looks forward to the publication of the report on the TranSAS mission to Brazil, expresses satisfaction with the outcome of the TranSAS mission to the United Kingdom as set out in the report published by the Agency on 6 September 2002, welcomes the requests of France, Panama and Turkey for TranSAS missions and looks forward to the publication of the results of those missions, and encourages other Member States to avail themselves of TranSAS;
8. Notes the progress made by the Secretariat toward developing a database on events that have arisen during the transport of radioactive materials (EVTRAM) and invites Member States to provide reports accordingly;
9. Requests the Secretariat to continue to seek regularly from each Member State data needed in order to ensure that the information on how it regulates the transport of radioactive materials which is published on the Agency's transport safety web page is complete and up-to-date and urges those Member States which have not provided such data to do so expeditiously;

10. Urges Member States shipping radioactive materials, consistent with resolution GC(45)/RES/10, to provide, as appropriate, assurances to potentially affected States that their national regulations accord with the Agency's Transport Regulations;
11. Welcomes the practice of some shipping States and operators of providing in a timely manner information and responses to relevant coastal States in advance of shipments for the purposes of addressing concerns regarding safety and security, including emergency preparedness, and invites others to do so in order to improve mutual understanding and confidence regarding shipments of radioactive materials. The information and responses provided should in no case be contradictory to the measures of physical protection and safety;
12. Emphasizes the importance of maintaining dialogue and consultation aimed at improving mutual understanding, confidence building and enhanced communication in relation to the safe maritime transport of radioactive materials and requests the Director General to examine how the Agency could assist to further this objective and to report to the next General Conference;
13. Stresses the importance of having effective liability mechanisms in place to insure against harm to human health and the environment as well as actual economic loss due to an accident or incident during the maritime transport of radioactive materials, and furthermore stresses the need expressed by certain States for consultations among relevant Member States to discuss the liability arrangements that are applicable in the event of an accident or incident during the maritime transport of radioactive materials;
14. Welcomes the agreement reached in February 2002 on revising the Paris Convention on Third Party Liability in the Field of Nuclear Energy and urges States Parties to ratify the revised text of the Convention at the earliest opportunity, and stresses the importance of wide adherence to the international nuclear liability regime established by the Vienna Convention on Civil Liability for Nuclear Damage, as amended in 1997, and the related treaties adopted under IAEA auspices;
15. Requests the Director General, subject to the availability of resources, to strengthen and widen the Agency's efforts in the area of education and training for the safe transport of radioactive materials; and
16. Requests the Director General to report to it at its forty-seventh (2003) regular session on the implementation of this resolution.

## **C. EDUCATION AND TRAINING**

### The General Conference,

- (a) Recalling its resolution GC(45)/RES/10.C on Education and Training in Nuclear, Radiation, Transport and Waste Safety,
- (b) Emphasizing the important role of education and training in establishing and maintaining an adequate radiation and waste safety infrastructure, including regulatory aspects, as stipulated in the Preamble to the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources,

- (c) Taking note with appreciation of the implementation of a Strategic Plan for a long-term and sustainable education and training programme,
  - (d) Taking note of the recommendations resulting from the evaluation of the Agency's Education and Training Activities for Radiation Protection as contained in Attachment 2 to document GOV/INF/2002/7, and
  - (e) Welcoming the preparation of training modules for practice-specific training and post-graduate training courses and also the adaptation of the existing paper-based distance learning materials for e-learning,
1. Stresses the importance of education and training in nuclear, radiation, transport and waste safety and also in other areas of nuclear science and technology;
  2. Urges the Secretariat to continue to implement the Strategic Plan as mentioned in the Note by the Secretariat "2001/Note 20", including the convening of the Steering Committee that oversees and advises on the implementation of the Strategic Plan for a sustainable education and training programme;
  3. Urges the Secretariat to continue to strengthen, within available financial resources, its current efforts in this area, and in particular to assist Member States at regional and national training centres that would arrange for such education and training to be conducted in the appropriate official languages of the Agency;
  4. Encourages the Secretariat to employ Electronic Networking and Outreach (ENO) Projects to implement e-learning; and
  5. Requests the Director General to report on the implementation of this resolution to the General Conference at its forty-seventh session.

#### **D.**

### **CONVENTION ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT AND CONVENTION ON ASSISTANCE IN THE CASE OF A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY**

#### The General Conference.

- (a) Recalling the Convention on Early Notification of a Nuclear Accident (the Early Notification Convention) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (the Assistance Convention),
- (b) Recalling further a number of bilateral and regional agreements on assistance and early notification,
- (c) Recalling resolution GC(44)/RES/16 on measures to strengthen international co-operation in nuclear and radiological emergency preparedness and response,
- (d) Noting with satisfaction the report submitted by the Director General in Attachment 8 to document GC(46)/11 in response to resolution GC(44)/RES/16,
- (e) Appreciating the work done by the Secretariat in helping Member States to develop arrangements for ensuring safety and for responding to nuclear and radiological

incidents and accidents, and also the Secretariat's efforts to ensure prompt response to requests for assistance,

(f) Noting the Safety Requirements on Preparedness and Response to a Nuclear or Radiological Emergency (GOV/2002/5) recently approved by the Board for publication as a safety standard,

(g) Recalling the First Meeting of Representatives of National Competent Authorities identified under the Early Notification and Assistance Conventions (Competent Authorities' Meeting), held in June 2001, and the follow-up meeting, held in Oslo in May 2002, and the recognition from these meetings that substantial work both by the Secretariat and by Member States remains to be done before the identified goals are reached,

(h) Noting with concern nuclear and radiological incidents and accidents that have occurred in different parts of the world in recent years, the number of orphan sources reported and the possibility of radioactive substances being used with malicious intent,

(i) Aware that such incidents and accidents and possible acts with malicious intent often cause international concern and sometimes require an international response,

(j) Recognizing that the response capabilities of the States Parties to the Early Notification Convention and the Assistance Convention and Member States could be improved and made more effective and efficient through international co-operation, and

(k) Recognizing also the need for enhanced efforts by the Secretariat in co-ordinating and facilitating international preparedness and response and thereby making it more consistent and coherent,

1. Encourages Member States to implement, if necessary, instruments for improving their own preparedness and response capabilities for nuclear and radiological incidents and accidents, including their arrangements for responding to acts involving the malicious use of nuclear or radioactive material and to threats of such acts, and further encourages Member States to implement the Safety Requirements for Preparedness and Response to a Nuclear or Radiological Emergency (GOV/2002/5) and the updated procedures of the Emergency Notification and Assistance Technical Operations Manual and, in particular, adopt the lower threshold for early notification and information exchange;

2. Encourages Member States to contribute to the international efforts to develop a consistent, coherent and sustainable joint programme for improved and more efficient international response to nuclear and radiological emergencies;

3. Encourages Member States to put in place arrangements for effectively responding to requests made under the Assistance Convention and, within their respective capabilities, to make resources available for responding to such requests, and to consider joining the Emergency Response Network (ERNET);

4. Requests the Secretariat to seek ways of facilitating co-operation and co-ordination among Parties to the Early Notification Convention and the Assistance Convention to ensure adequate implementation and consider institutionalizing the Competent Authorities' Meeting;

5. Requests the Director General to continue to evaluate and, if necessary, improve the capability of the IAEA Emergency Response System to fulfil its role as co-ordinator and

facilitator of international emergency preparedness and response and to ensure sustainability of the System; and

6. Requests the Director General to report, as appropriate, to it at its forty-eighth (2004) regular session on the implementation of this resolution.