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Measures to Strengthen International Co-operation in Nuclear, Radiation and Transport Safety and Waste Management

**Resolution adopted on 19 September 2003 during the tenth plenary
meeting**

A.

Measures to Strengthen International Co-operation in Nuclear, Radiation and Transport Safety and Waste Management

The General Conference,

- (a) Recalling resolution GC(46)/RES/9 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) Reiterating the importance of Member States taking the necessary steps to develop and improve their national nuclear, radiation and waste safety legal infrastructures,
- (e) Noting with appreciation documents GC(47)/INF/3 and GC(47)/INF/4 (with its Addenda), containing the Secretariat's responses to nuclear, radiation, transport and waste safety issues of concern to Member States,
- (f) Noting that the Agency is organizing an *International Conference on the Protection of the Environment from the Effects of Ionizing Radiation* in Stockholm from 6 to 10 October 2003,

- (g) Appreciative of the ongoing work on a Code of Conduct on the Safety of Research Reactors,
- (h) Recalling the findings and recommendations of the International Conference on Occupational Radiation Protection: Protecting Workers against Exposure to Ionizing Radiation, held in August 2002 (the Geneva Conference),
- (i) Recalling resolution GC(44)/RES/15, in which the General Conference requested the Secretariat to develop radiological criteria for long-lived radionuclides in commodities, and noting their ongoing development as described in Annex 2 to document GC(47)/INF/4,
- (j) Noting the findings of the *International Conference on National Infrastructures for Radiation Safety: Towards Effective and Sustainable Systems* that took place in Rabat, Morocco, from 1 to 5 September 2003;
- (k) 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,
- (l) Noting the findings of the *International Conference on Issues and Trends in Radioactive Waste Management*, held in Vienna from 9 to 12 December 2002,
- (m) Recalling the findings of the *International Conference on Safe Decommissioning for Nuclear Activities: Assuring the Safe Termination of Practices involving Radioactive Materials*, held in Berlin from 14 to 18 October 2002,
- (n) Re-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,
- (o) Recalling the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, recalling further resolution GC(46)/RES/9.D, including the request for the Director General to report, as appropriate, to the forty-eighth regular session on the implementation of this resolution; and welcoming the outcome of the second Meeting of Representatives of National Competent Authorities identified under those conventions,
- (p) Recalling the objectives of the Convention on Nuclear Safety that refer, among other things, to international technical co-operation in safety, and
- (q) Noting the success of the Model Projects as reported in documents GOV/1999/67 and GOV/2001/48,

1. General

1. Urges the Secretariat to continue and strengthen, subject to availability of financial resources, its efforts relating to nuclear, radiation, transport and waste safety, focusing particularly on mandatory activities and on technical areas and regions where the need for improvement is greatest;
2. 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, transport and waste safety;
3. Encourages Member States to continue requesting IAEA safety review services in order to enhance nuclear, radiation, transport and waste safety;

4. Encourages Member States to participate actively in the deliberations of the *International Conference on the Protection of the Environment from the Effects of Ionizing Radiation*, and requests the Director General to report to the Board and the General Conference on its findings;
5. Encourages Member States to promote technical co-operation for the further enhancement of safety.

2.

The Agency's Safety Standards Programme

6. Welcomes the Board decision to establish, as Agency safety standards, in accordance with Article III.A.6 of the Statute, the Safety Requirements on "*Site Evaluation for Nuclear Installations*", contained in document GOV/2003/51, and the Safety Requirements on "*Remediation of Areas Contaminated by Past Activities and Accidents*", contained in document GOV/2003/52, authorizes the Director General to promulgate these Safety Requirements as part of the Agency's safety standards and issue them as a Safety Requirements publication in the Safety Standards Series, and encourages Member States to incorporate these safety requirements into national regulatory programmes, to the fullest extent possible;
7. Notes the progress in the development by the IAEA Commission on Safety Standards (CSS) of the plan of an overall structure for safety standards, pursuant to the strategy it agreed in November 2002 for further developing the safety standards and for their global acceptance, and encourages the CSS to complete the development of an action plan defining the steps necessary to reach a set of safety standards in accordance with the overall structure, and to promote their worldwide application;
8. Welcomes the Secretariat's continuing work on developing safety standards for fuel cycle facilities.

3.

Nuclear Installation Safety

9. 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;
10. Reminds the Contracting Parties to the Convention on Nuclear Safety of the need for them 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;
11. Recognizes the progress made in preparing a Code of Conduct on the Safety of Research Reactors, and notes that the final version of the draft Code is expected to be resubmitted for consideration by the Board of Governors in March 2004;
12. Welcomes the continuing assistance provided by the Secretariat in monitoring and improving the safety of research reactors, particularly those subject to IAEA Project and Supply Agreements, and encourages relevant Member States to collaborate closely with the Secretariat in facilitating such assistance;
13. Reminds those Member States with research reactors which have not yet responded to the Secretariat's questionnaire on the safety status of their research reactors of the need for them to do so as soon as possible;
14. Welcomes the increased focus on the importance of safety culture in nuclear installations, and in this context notes the findings of the International Conference on Safety Culture in Nuclear Installations, held in Brazil in December 2002.

4.

Radiation Safety

15. Welcomes progress in implementing the *International Action Plan for the Radiological Protection of Patients*, which was approved by the Board and endorsed by the General Conference in 2002, further welcomes the establishment of a *Steering Committee on the International Action Plan for the Radiological Protection of Patients* for the purpose of keeping the various activities under review, thanks the Government of Spain for its support for the Steering Committee, looks forward to the outcome of its first meeting, to be held in Madrid at the beginning of 2004, and requests the Secretariat to continue to keep it informed about the implementation of the Action Plan;
16. Commends the Secretariat and Member States for the progress that has taken place through the relevant Model Projects for Upgrading Radiation Protection Infrastructures in the different regions, and urges the Secretariat to continue these Model Projects;
17. Welcomes the approval by the Board of Governors of the *International Action Plan for Occupational Radiation Protection* contained in document GC(47)/7, and requests the Director General to keep it informed of its implementation;
18. Encourages the development of radiological criteria for long-lived radionuclides in commodities, noting the need to consider carefully the implications for radiological protection and international trade;
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 the Protection of the Environment from the effects of Ionizing Radiation*, which is to take place in Stockholm from 6 to 10 October 2003;
20. Welcomes the findings of the *International Conference on National Infrastructures for Radiation Safety: Towards Effective and Sustainable Systems* that took place in Rabat, Morocco, from 1 to 5 September 2003, and requests the Secretariat to convene a group of experts to advise the Secretariat on implementation of the findings of the Conference;

5.

The Safety of Radioactive Waste Management

21. Reminds Member States of the relevance of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management to all Member States, covering as it does radioactive waste from, inter alia, medicine and industry as well as the nuclear fuel cycle; further reminds Member States of 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 in November 2003, and appeals to all Member States which have not yet taken the necessary steps to become party to the Joint Convention to do so;
22. Encourages the Secretariat to promote ratification of the Joint Convention through the Technical Co-operation programme and the development of material highlighting to countries the benefits of ratifying the Joint Convention;
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. Endorses the updating (as noted in Annex 7 to GC(47)/INF/4), in the light of the findings of the *International Conference on Issues and Trends in Radioactive Waste Management*, of the list of actions on the safety of radioactive waste management approved by the Board in 2001, including the addition of two new actions related to the control of radioactive discharges to the environment and the management of spent long-lived sealed radioactive sources;

6.

The Safe Decommissioning of Nuclear Activities

25. Welcomes the outcome of the International Conference on Safe Decommissioning for Nuclear Activities: Assuring the Safe Termination of Practices involving Radioactive Materials, held in Berlin in October 2002;
26. Encourages the early review of the draft action plan on safe decommissioning being prepared by the Secretariat, and urges the Secretariat to submit a finalized action plan to the Board for approval as soon as possible in 2004;

7.

Education and Training in Nuclear, Radiation, Transport and Waste Safety

27. Underlines the fundamental importance of education and training in nuclear, radiation, transport safety and waste management;
28. Welcomes the continued implementation of the Strategy for Education and Training in Nuclear Safety and the Strategic Plan for a Long-Term and Sustainable Programme of Education and Training in Radiation Safety and Waste Management and the effective implementation of the related extrabudgetary programmes, such as the Internet-based Asian Nuclear Safety Network;
29. Welcomes the commitment of Member States to education and training, including the recent convening of training and educational courses and workshops by France, Germany, Spain, Argentina, Belarus, Malaysia, the Syrian Arab Republic, Morocco, Greece, China and the Republic of Korea;
30. Urges the Secretariat to continue to strengthen, subject to the availability of 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, and to assist Member States in the preparation of training materials in the official languages of the Agency;
31. Encourages the Secretariat to employ Electronic Networking and Outreach (ENO) projects to implement e-learning;

8.

International Response to Nuclear and Radiological Emergencies

32. Urges all Member States to become Parties to 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*);
33. Continues to encourage Member States to implement, where 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 to adopt IAEA standards, procedures and systems developed as part of international co-operation;
34. 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, including putting in place arrangements for effectively responding to requests made under the Assistance Convention and, within their respective capabilities, making resources available for responding to such requests, and to consider joining the Emergency Response Network (ERNET);
35. Welcomes agreement by the Second Meeting of Representatives of National Competent Authorities identified under the Early Notification Convention and the Assistance Convention on a long-term goal for strengthening the international emergency preparedness and response system, and

the decision to establish a regionally balanced National Competent Authorities' Co-ordinating Group (NCACG) to co-ordinate the execution of tasks assigned to competent authorities by the Meeting;

36. Welcomes the outcome of the International Conference on Security of Radioactive Sources in Vienna in March 2003 encouraging all States and the Secretariat to enhance national and international response arrangements and States to strengthen their mechanisms for provision of assistance. Further welcomes the outcome of the International Conference on the Safety of Transport of Radioactive Material in July 2003, which found that additional dialogue is warranted to improve overall international emergency response capability;

37. Requests the Secretariat to continue 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 to consider institutionalizing the Competent Authorities' Meeting;

38. 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;

39. Supports the Secretariat's intention (GC(47)/INF/4, Annex 4), as taken note by the Board of Governors, to facilitate the NCACG's work and to develop – with the NCACG – a plan of action for enhancing the international emergency response system and urges Member States to make the necessary contributions to this work; and

9.

General

40. Requests the Director General to report, as appropriate, to it at its forty-eighth (2004) regular session on developments relevant to this resolution in the intervening period.

B.

Code of Conduct on the Safety and Security of Radioactive Sources

The General Conference,

- (a) Noting that radioactive sources are used throughout the world for a wide variety of beneficial purposes, e.g. in industry, medicine, research, agriculture and education,
- (b) Aware that the use of these radioactive sources involves risks due to potential radiation exposure,
- (c) Recognizing the need to protect individuals, society, and the environment from the harmful effects of possible accidents and malicious acts involving radioactive sources,
- (d) Noting that ineffective, interrupted or sporadic regulatory or management control of radioactive sources has led to serious accidents or malicious acts, or to the existence of orphan sources,
- (e) Aware that the risks arising from such incidents must be minimized and protected against through the application of appropriate radiation safety and security standards,
- (f) Recognizing the importance of fostering a safety and security culture in all organizations and among all individuals engaged in the regulatory control or the management of radioactive sources,
- (g) Recognizing the need for effective and continuous regulatory control, in particular to reduce the vulnerability of radioactive sources during transfers, within and between States,

- (h) Recalling the findings of the Conferences in Dijon (1998), Buenos Aires (2000) and Vienna (2003), in particular the need for appropriate control of high-risk radioactive sources,
 - (i) Noting the findings from the International Conference on National Infrastructures for Radiation Safety held in Morocco and the progress of the IAEA Model Project to Upgrade National Radiation Protection Infrastructures, and recognizing the need for adjustments in the Model Project in light of these findings and the guidance in the Code of Conduct,
 - (j) Noting the revised IAEA Action Plan for the Safety and Security of Radioactive Sources (GC(47)/7, Annex 1),
 - (k) Recognizing the need to control sealed sources in a manner consistent with non-proliferation, anti-terrorism and nuclear security objectives, and
 - (l) Noting and appreciating the support of the G-8 in recognizing the importance of securing radioactive sources and of the Code of Conduct on the Safety and Security of Radioactive Sources,
1. Welcomes the approval by the Board of Governors of the revised IAEA Code of Conduct on the Safety and Security of Radioactive Sources (GC(47)/9);
 2. Endorses the objectives and principles set out in the Code, while recognizing that the Code is not a legally binding instrument;
 3. Recognizes that high priority should be given to developing and following the guidance in support of the Code of Conduct as specified in the Action Plan for the Safety and Security of Radioactive Sources;
 4. Urges each State to write to the Director General that it fully supports and endorses the IAEA's efforts to enhance the safety and security of radioactive sources, is working toward following the guidance contained in the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, and encourages other countries to do the same;
 5. Requests that the Director General, subject to the availability of resources, compile, maintain and publish a list of States that have made a political commitment, as described in paragraph 4 above;
 6. Recognizes also that the procedure established in paragraphs 4 and 5 is an exceptional one, having no legal force and only intended for information, and therefore does not constitute a precedent applicable to other Codes of Conduct of the Agency or of other bodies belonging to the United Nations system;
 7. Urges the Secretariat to continue to use the Technical Co-operation programme, particularly the Model Project to Upgrade National Radiation Protection Infrastructures and assistance missions, to help Member States in implementing the Code;
 8. Requests the Director General to submit a report to the General Conference at its forty-eighth session on activities undertaken by the Agency regarding the Code of Conduct, including activities undertaken under the Model Project referred to in paragraph 7, and include an item entitled "The Safety and Security of Radioactive Materials" in the provisional agenda for that session.

C. Transport Safety

The General Conference,

- (a) Noting with interest the report on Transport Safety contained in GC(47)INF/4,
- (b) 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,

(c) Recognizing that, historically, the safety record of maritime transport of nuclear materials has been excellent,

(d) Recalling that States have under international law the obligation to protect and preserve the marine environment,

(e) Reaffirming the competence of the IAEA in relation to the safety of transport of radioactive materials,

(f) Reaffirming maritime and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments,

(g) Stressing the importance of international co-operation to enhance the safety of international navigation,

(h) Emphasising that the General Conference has encouraged Member States to make use of the Transport Safety Appraisal Service (TranSAS),

(i) Recalling resolution GC(46)RES/9, 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,

(j) Recognising 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, recognising 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 transport of radioactive materials, and

(k) 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,

1. Commends the Agency for having convened the International Conference on the Safety of Transport of Radioactive Material that was held in Vienna from 7-11 July, 2003, welcomes the constructive discussions of the issues at the Conference and the President's Summary and Findings, and requests the Agency to develop an Action Plan, in consultation with Member States and for approval by the Board, if possible in March 2004, based on the results of the Conference and within the Agency's competence;

2. Notes that the Conference found that the current regulations provide a high level of safety and provide a good basis for an effective regulatory process and maintenance of a safety record which has historically been excellent;

3. Recognizes that such a record can best be maintained by continuing efforts to improve the regulatory and operational practices and ensure strict implementation of guidelines;

4. 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, acknowledges the Conference President's conclusion that the preparation of explanatory text for the various nuclear liability instruments would assist in developing a common understanding of the complex issues and thereby promote adherence to

these instruments, and welcomes the decision of the Director General to appoint a group of experts to explore and advise on issues related to nuclear liability;

5. 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;

6. Emphasises the importance of maintaining dialogue and consultation aimed at improving mutual understanding, confidence building and enhanced communication in relation to safe maritime transport of radioactive materials, and in this context supports the recommendation of the Conference President that informal discussions should continue among shipping states and relevant coastal states on communication, with the Agency involvement, and encourages interested Member States to engage in these informal discussions;

7. Acknowledges the Conference President's summary conclusion that there was scope for additional efforts to communicate the complex technical issues involved in the area of safety which relate to transport, endorses the Conference President's suggestion that the Agency hold a seminar to discuss the latest information on these issues in due course, and encourages all concerned states to participate in such an event;

8. Notes that the Conference found that IAEA guidance provides a framework for a comprehensive strategy for anticipating and dealing with transport accidents involving radioactive materials, and that additional dialogue is warranted to improve overall international emergency response capability especially with respect to potential maritime incidents;

9. Urges Member States that do not have national regulatory documents governing the transport of radioactive materials to adopt such documents expeditiously and urges all Member States to ensure that such regulatory documents are in conformity with the current edition of the Agency's Transport Regulations;

10. 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 updated and urges the many Member States which have not provided such data to do so expeditiously;

11. 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 Sub-committee of Experts on the Transport of Dangerous Goods and of the relevant international modal organizations;

12. Taking into account and building on the results of the International Conference, calls for continuing efforts, at appropriate international and regional levels, to optimize measures and international regulations relevant to the international transport of radioactive materials,

13. Calls for discussions to address the problems with refusal of shipments;

14. Welcomes the TranSAS missions to Turkey and Panama in 2003, welcomes the planned TranSAS mission to France and looks forward to the publication of the results of TranSAS missions;

15. Commends those Member States that have already made use of TranSAS, and encourages them to put into effect the resulting recommendations and suggestions, as well as to share their good practices with other Member States and encourages other Member States to avail themselves of TranSAS and to improve transport practices based on recommendations and suggestions of TranSAS missions;

16. Welcomes the establishment of a database on Events in the Transport of Radioactive Material (EVTRAM) and encourages Member States to provide appropriate information to ensure the efficient operation of the database;
17. 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
18. Requests the Director General to report at the forty-eighth (2004) regular session of the General Conference on the implementation of this resolution.