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Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety

Resolution adopted on 29 September 2016 during the seventh plenary meeting

The General Conference,

- (a) Recalling resolution GC(59)/RES/9 and previous General Conference resolutions on matters relating to measures to strengthen international cooperation in nuclear, radiation, transport and waste safety, and emergency preparedness and response,
- (b) Acknowledging the Agency's statutory functions with respect to safety and welcoming the activities of the Agency in establishing Safety Standards,
- (c) Recognizing the central role of the Agency in coordinating international efforts to strengthen nuclear safety globally, in providing expertise and advice in this field and in promoting nuclear safety,
- (d) Recognizing that strengthening nuclear safety globally requires the resolve of Member States to continuous improvement in the pursuit of high levels of safety,
- (e) Recognizing the increasing number of countries considering introducing nuclear power and radiation technology, and the importance of international cooperation to strengthen nuclear safety in this regard,
- (f) Recognizing that nuclear safety culture is a key element of the peaceful uses of nuclear energy, ionizing radiation and radioactive substances, and that continuous efforts are required to ensure its maintenance at a high level,
- (g) Noting with appreciation the implementation of the IAEA Action Plan on Nuclear Safety (GC(55)/14), and the results achieved,

- (h) Recognizing that nuclear safety and security have the common aim of protecting people and the environment, while acknowledging the distinctions between the two areas, and affirming the importance of coordination in this regard,
- (i) Recognizing the primary responsibility of operators for ensuring safety,
- (j) Recognizing the importance of Member States establishing and maintaining effective and sustainable regulatory infrastructures,
- (k) Acknowledging that research, development and the introduction of innovative methods and technologies are of fundamental importance in improving nuclear safety worldwide,
- (l) Recalling the objectives of the Convention on Nuclear Safety (CNS), the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention), the Convention on Early Notification of a Nuclear Accident (Early Notification Convention) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention) and the respective obligations of States Parties, and recognizing the need for effective and sustainable implementation of these conventions,
- (m) Recalling the objectives of the Code of Conduct on the Safety of Research Reactors and the Code of Conduct on the Safety and Security of Radioactive Sources and the supplementary Guidance on the Import and Export of Radioactive Sources;
- (n) Recalling that States, under international law, have the obligation to protect and preserve the environment, including the marine and terrestrial environment, and emphasizing the importance of the Secretariat's continued collaboration with the Contracting Parties of international and regional instruments aimed at protecting the environment from radioactive wastes, in particular the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention) and Protocol,
- (o) Recognizing that, historically, the safety record of civilian transport, including maritime transport, of radioactive materials has been excellent, and stressing the importance of international cooperation to enhance the safety and security of international transport,
- (p) Recalling maritime and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments,
- (q) Noting that the timely shipment of radioactive materials that meet the Agency's Regulations for the Safe Transport of Radioactive Material, particularly those having important uses in the medical, academic and industrial sectors, is being adversely affected by incidents of denial or delay of shipment,
- (r) Recalling resolution GC(59)/RES/9 and previous resolutions that invited Member States shipping radioactive material to provide, as appropriate, assurances to potentially affected States, upon their request, that their national regulations take into account the Agency's Regulations for the Safe Transport of Radioactive Material and to provide them with relevant information relating to shipments of such material, and noting that the information provided should in no case be contradictory to the measures of safety and security,
- (s) Recognizing the importance of communication with and outreach to the public, for the purpose of enhancing public awareness regarding nuclear safety in the context of peaceful uses of nuclear energy,

- (t) Recognizing that nuclear accidents may have transboundary effects and raise public concerns about nuclear energy and the radiological effects on people and the environment,
- (u) Recognizing that radiological emergencies also raise public concerns about the radiological effects on people and the environment,
- (v) Emphasizing the importance of Member States and relevant international organizations responding to nuclear and radiological emergencies in a timely and effective manner,
- (w) Recognizing the importance of well-developed communication arrangements and regular public information as an important component of effective planning and preparedness for and response to nuclear accidents and radiological emergencies,
- (x) Acknowledging the Secretariat's role in response to nuclear or radiological incidents or emergencies and recognizing the need to ensure the timeliness of the collection, validation, assessment and prognosis, and dissemination by the Secretariat, in cooperation with the incident/accident State, of incident or emergency information to Member States and the public, as well as seeking effective facilitation and coordination of assistance by the Secretariat, upon request,
- (y) Emphasizing the importance of education, training and knowledge management in establishing and maintaining an adequate nuclear, radiation, transport and waste safety and emergency preparedness infrastructure,
- (z) Recognizing ongoing efforts of the international community to enhance capacity building, share knowledge and strengthen international standards in nuclear safety, including emergency preparedness and response and the radiation protection of people and the environment,
- (aa) Recognizing the importance of self-assessment and the Agency's peer review services as effective tools for continued efforts by Member States to evaluate, maintain effective practices and further improve their respective nuclear safety,
- (bb) Recognizing that regional organizations of regulatory authorities have been strengthening regional efforts through the exchange of information and experience and technical programmes, and recognizing also the transparent cross peer reviews among the respective members of the Ibero-American Forum of Radiological and Nuclear Regulatory Agencies (FORO), the European Nuclear Safety Regulators Group (ENSREG) and the Western European Nuclear Regulators' Association (WENRA) of targeted reassessments of their nuclear power plants in the light of the Fukushima Daiichi nuclear accident, and further recognizing that such activities can be of interest to other organizations or regulatory authorities,
- (cc) Underscoring that medical uses of ionizing radiation constitute by far the largest source of artificial exposure, and emphasizing the need for enhanced efforts to optimize radiation protection for patients and health workers,
- (dd) Recognizing the need to enhance cooperation and coordination between the Agency and the relevant organizations at the intergovernmental, national, regional and international levels on all nuclear safety-related matters,
- (ee) Emphasizing the importance of the establishment, implementation, regular exercise and continuous improvement of national emergency preparedness and response mechanisms and arrangements, taking into account the IAEA Safety Standards and relevant action plans, including for communications, and contributing to the harmonization of national protective actions,

- (ff) Emphasizing the need to be prepared for remediation following a nuclear or radiological incident or accident, and the need for appropriate plans for the safe management of waste, including unusual waste forms and large volumes of waste,
- (gg) Noting the importance of decommissioning programmes and spent fuel management activities as facilities reach end of life,
- (hh) Recalling United Nations General Assembly resolution A/RES/70/81 of 9 December 2015 related to the effects of atomic radiation, and the Board decision in March 1960 on health and safety measures (INFCIRC/18),
- (ii) Recalling the IAEA Action Plan on Nuclear Safety's objective of establishing a global nuclear liability regime that addresses the concerns of all States that might be affected by a nuclear accident with a view to providing appropriate compensation for nuclear damage,
- (jj) Recalling the Paris Convention on Third Party Liability in the Field of Nuclear Energy, the Vienna Convention on Civil Liability for Nuclear Damage, the Brussels Convention supplementary to the Paris Convention, the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, the protocols amending the Brussels, Paris and Vienna Conventions, and the Convention on Supplementary Compensation for Nuclear Damage (CSC) and noting that these instruments can provide the basis for establishing a global nuclear liability regime based on the principles of nuclear liability,
- (kk) Stressing the importance of having in place effective and coherent nuclear liability mechanisms at the national and global levels to ensure prompt, adequate and non-discriminatory compensation for damage to — inter alia — people, property and the environment, including actual economic loss due to a nuclear accident or incident, recognizing that principles of nuclear liability, including strict liability, should apply as appropriate in the event of a nuclear accident or incident, including during the transport of radioactive material, and noting that the principles of nuclear liability can benefit from the advances contained in the 1997 and 2004 instruments concerning broader definition of nuclear damage, expanded jurisdiction over nuclear incidents and increased compensation, and from recommendations made by the International Expert Group on Nuclear Liability (INLEX), to provide better protection to victims of nuclear damage, and
- (ll) Recalling the central role of the IAEA in (a) promoting adherence to all international nuclear safety conventions concluded under its auspices and (b) promoting adherence, in coordination with the OECD Nuclear Energy Agency (NEA), when appropriate, to conventions concluded under their auspices related to civil nuclear liability,

1.

General

1. Urges the Secretariat to continue to strengthen its efforts to maintain and improve nuclear, radiation, transport and waste safety, focusing particularly on mandated activities and on technical areas;
2. Encourages Member States to maintain and improve nuclear safety and safety infrastructure, particularly those considering introducing nuclear power, radiation technology or engaging in international nuclear cooperation, taking into account the relevant IAEA Safety Standards and safety conventions as applicable;
3. Requests the Secretariat to continue to assist Member States, particularly those considering introducing nuclear power or radiation technology, upon request, in developing, utilizing and

improving their national infrastructure, including legislative and regulatory frameworks, scientific and technical capabilities and knowledge management practices and procedures for nuclear, radiation, transport and waste safety;

4. Urges that the Agency, following the publication of the Director General's report, "Measures to Strengthen International Cooperation in Nuclear, Radiation, Transport and Waste Safety: Building on the Action Plan on Nuclear Safety" (GOV/INF/2016/10), continues to build upon the IAEA Action Plan on Nuclear Safety and the experience of its implementation by Member States, the IAEA Report on the Fukushima Daiichi nuclear power plant accident, and the principles enshrined in the Vienna Declaration on Nuclear Safety and uses them for defining its nuclear safety strategy and programme of work, including priorities and milestones, and notes that the Secretariat will report periodically in this regard to the Board of Governors and the General Conference, in particular in March 2017 and September 2017;
5. Requests the Secretariat to promote safety culture and, upon request, to support Member States in assessing and improving safety culture at all levels, including within nuclear regulatory bodies and within nuclear operators;
6. Encourages Member States to continue to exchange regulatory information and share experience on the effectiveness of safety culture approaches, including the sharing of best practical examples, through multilateral, bilateral and other channels;
7. Requests the Secretariat, while recognizing the distinction between nuclear safety and nuclear security, to continue facilitating in close cooperation with Member States a coordination process to address their interfaces, and encourages the Agency to develop safety and security publications and to foster culture accordingly;
8. Encourages the Secretariat to coordinate its programmatic activities in safety with other relevant activities of the Agency, in particular in uranium mining, remediation and knowledge management, and to ensure consistency of safety aspects of relevant IAEA publications;
9. Urges Member States receiving assistance from the Agency to update information in the IAEA Radiation Safety Information Management System (RASIMS) so as to enable the Secretariat to identify the technical assistance needed to strengthen radiation safety infrastructure in accordance with IAEA Safety Standards;
10. Welcomes the establishment of regional safety fora and related networks, requests the Secretariat to continue assisting such fora and networks, and encourages Member States to join relevant regional safety fora and networks, and to participate and work in cooperation with other members so that the benefits of membership can be fully realized;
11. Requests the Secretariat to strengthen its cooperation with the regional regulatory organizations FORO and ENSREG in areas of mutual interest, and further requests the Secretariat to promote wide dissemination of technical documents and outcomes of projects developed by these organizations;
12. Requests the Secretariat to review the arrangements for reporting nuclear incidents and accidents with a view to harmonizing them;
13. Encourages Member States to continue sharing safety-relevant findings and lessons learned among regulators, technical and scientific support organizations, operators and industry, as appropriate with the assistance of the Secretariat;
14. Encourages Member States to continue to communicate effectively to interested parties, including to their general public, about regulatory processes and safety aspects, including health

effects, and environmental aspects of facilities and activities, on the basis of scientific data as available, in order to enhance public awareness, and encourages Member States to provide for consultation with their public as appropriate;

15. Requests the Secretariat, in collaboration with Member States, to identify actions to improve regulatory effectiveness, taking into account the conclusions of the report of the President of the 2016 International Conference on Effective Nuclear Regulatory Systems;

16. Encourages the Secretariat and Member States to continue to make effective use of the Agency's technical cooperation resources for the further enhancement of safety;

17. Encourages Member States to actively participate in the Global Nuclear Safety and Security Network (GNSSN) and requests the Secretariat to continue to strengthen its effort in maintaining and developing the GNSSN, including the development of the knowledge platforms;

2.

Conventions, Regulatory Frameworks and Supporting Non-Legally-Binding Instruments for Safety

18. Urges all Member States that have not yet done so, especially those planning, constructing, commissioning or operating nuclear power plants, or considering a nuclear power programme, to become Contracting Parties to the CNS;

19. Stresses the importance of CNS Contracting Parties fulfilling the obligations of the Convention and actively participating in peer reviews for the 7th CNS Review Meeting in 2017;

20. Urges all Member States that have not yet done so, including those managing radioactive waste from the use of radioactive sources and nuclear energy, to become Contracting Parties to the Joint Convention;

21. Urges all Member States that have not yet done so to become Contracting Parties to the Early Notification Convention and the Assistance Convention, thereby contributing to a broader and stronger international emergency response capability, to the benefit of all Member States;

22. Requests the Secretariat to continue its activities to promote the importance of relevant conventions concluded under its auspices or in coordination with OECD/NEA where appropriate, and to assist Member States, upon request, with adherence and participation;

23. Calls on all Member States that have not yet done so to make a political commitment to implement the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources, further calls on all Member States to act in accordance with the Code and the Guidance, and requests the Secretariat to continue supporting Member States in this regard;

24. Urges Member States with research reactors under construction, in operation, being decommissioned or in extended shutdown to apply the guidance of the Code of Conduct on the Safety of Research Reactors;

25. Urges Member States that have not already done so to establish and sustain a regulatory body that is effectively independent in its regulatory decision-making, competent, and has the legal authority, and the appropriate human, financial and technical resources organized as necessary for fulfilling its responsibilities, and encourages Member States to take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy;

26. Urges Member States to strengthen regulatory effectiveness in the field of nuclear, radiation, transport and waste safety, and emergency preparedness, and to continue promoting cooperation and coordination among regulatory bodies within a Member State, as appropriate, and among Member States;
27. Urges Member States to establish or maintain regulatory decision-making processes that take into account scientific knowledge and expertise, and, where appropriate, technical and scientific support organizations and other relevant institutions;
28. Takes note of the valuable contribution of the International Nuclear Safety Group (INSAG) to the overall IAEA activities aimed at strengthening nuclear safety, and encourages the INSAG Chairperson to continue to communicate to Member States on a regular basis about major outcomes and recommendations of INSAG to the Director General;
29. Encourages Member States to work towards establishing a global nuclear liability regime and, as appropriate, to give due consideration to the possibility of joining the international nuclear liability instruments;
30. Requests the Secretariat, in coordination with the OECD/NEA when appropriate, to assist Member States, upon request, in their efforts to adhere to any international nuclear liability instruments concluded under the auspices of the IAEA and the OECD/NEA, taking into account the recommendations of the INLEX in response to the IAEA Action Plan on Nuclear Safety;
31. Recognizes the valuable work of INLEX, and takes note of its recommendations and best practices on establishing a global nuclear liability regime, including through the identification of actions to address gaps in and enhance the existing nuclear liability regimes, encourages the continuation of INLEX, especially for its support for the IAEA's outreach activities to facilitate the achievement of a global nuclear liability regime, and requests the Secretariat to report on the continuing work of INLEX;
32. Requests that INLEX, via the Secretariat, and in light of the practice established by INSAG, informs Member States on a regular basis about the work of INLEX and its recommendations to the Director General;
33. Requests that INLEX, via the Secretariat, shares the existing recommendations made by INLEX regarding insurance or other financial security for at least Categories 1 and 2 sources, and encourages Member States, as appropriate, to take these into consideration;

3.

The Agency's Safety Standards Programme

34. Encourages Member States to implement measures nationally, regionally and internationally to ensure nuclear, radiation, transport and waste safety, as well as emergency preparedness, taking full account of IAEA Safety Standards;
35. Requests the Agency to continuously review, strengthen, promulgate and implement as broadly and effectively as possible the IAEA Safety Standards, and to continue to support the Commission on Safety Standards (CSS) and the Safety Standards Committees;
36. Requests the Secretariat to continue its close cooperation with the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), the International Commission on Radiological Protection (ICRP) and other relevant organizations in the development of Safety Standards;

37. Encourages Member States to use the IAEA Safety Standards in their national regulatory programmes, as appropriate, and notes the need to consider the periodic review of national regulations and guidance against internationally established standards and guidance and report on progress in appropriate international fora such as review meetings under the terms of the relevant safety conventions;

38. Requests the Secretariat to further develop the IAEA Safety and Security Series Online User Interface (NSS-OUI), to facilitate access to, and navigation through, the content of the IAEA Safety Standards;

39. Requests the Secretariat, given the importance of the Safety Standards Committees, to promote the effective participation of all Member States in those committees;

4.

Self-assessments and the Agency's Peer Review Services

40. Encourages Member States to ensure regular self-assessments of their domestic nuclear, radiation, transport and waste safety, as well as emergency preparedness, taking into account the Agency's self-assessment tools and relevant IAEA Safety Standards;

41. Encourages Member States in a position to do so to continue making the necessary expertise available to the Secretariat for effective implementation of the IAEA safety peer reviews and requests the Secretariat to make further use of Member States' expertise;

42. Further encourages Member States, on a voluntary basis, to regularly host Agency peer review services, to implement recommended actions, and to make publicly available in a timely manner the results of such self-assessments and peer review services;

43. Requests that the Secretariat provides for and promotes the active interaction of the Peer Review and Advisory Services Committee with Member States, and in consultation and coordination with Member States, assesses the overall structure, effectiveness and efficiency of services within the purview of the Committee; and continues to report to the Board of Governors on the outcomes of this common effort;

44. Requests the Agency to continue to strengthen its peer review services and self-assessment tools by incorporating lessons learned into its criteria and processes;

45. Encourages the Agency to share, as appropriate, the lessons learned from IAEA peer review missions;

5.

Nuclear Installation Safety

46. Recalls the outcomes of the 6th Review Meeting of the Contracting Parties to the CNS, including the actions taken to strengthen the effectiveness and transparency of the Convention particularly when preparing for the 7th Review Meeting of the Convention, to be held in 2017, welcomes the adoption by consensus of the Vienna Declaration on Nuclear Safety at the CNS Diplomatic Conference of February 2015, and encourages all Member States to contribute to the realization of its principles including through the implementation of the relevant provisions of this Resolution;

47. Takes note of the Informal Technical Follow-up Meeting of Nuclear Regulators held in Buenos Aires in 2015 to exchange views on how to improve CNS reporting on the basis of the Vienna Declaration;

48. Encourages the active participation of Contracting Parties to the CNS in the 7th Review Meeting of the Convention, including by fully engaging in the peer review process and the development of questions and comments, looks forward to all Contracting Parties reporting as decided by the Diplomatic Conference, and requests the Secretariat in this regard to provide full support for the dissemination and follow-up of the outcomes of the 7th CNS Review Meeting, and to address these in the Agency's current activities, as appropriate;
49. Requests the Secretariat, in consultation with all Member States, using the safety issues highlighted in the summary report of the 6th Review Meeting of the Contracting Parties of the CNS, to identify issues of particular relevance for civilian nuclear reactors not covered by the scope of the CNS;
50. Calls upon all Member States with nuclear installations that have not yet done so to establish effective operational experience feedback programmes including identifying safety-related precursors, and to share freely their experience, assessments and lessons learned, including through the submission of incident reports to the Agency's web-based reporting systems related to operational experience;
51. Encourages Member States that are constructing new nuclear power plants to share with other Member States, on a voluntary basis, their safety-relevant construction and commissioning experiences, and to benefit from, as appropriate, interaction within international organizations and fora such as the OECD/NEA and the World Association of Nuclear Operators (WANO);
52. Requests the Secretariat to continue efforts in the area of ageing management for the long-term operation of nuclear power plants and research reactors, and invites all Member States with such nuclear installations to consider making use of the Agency's guidance and services in this area;
53. Renews its calls upon Member States to ensure that comprehensive and systematic safety assessments are carried out periodically and regularly for existing installations throughout their lifetime in order to identify safety improvements that are oriented to meet the objective of preventing accidents with radiological consequences and mitigating such consequences should they occur, and that reasonably practicable or achievable safety improvements are implemented in a timely manner;
54. Encourages Member States that have not already done so to perform safety assessments in accordance with international best practice and relevant IAEA Safety Standards, including at multi-unit sites, to evaluate the robustness of nuclear power plants against multiple extreme events, and share their experience and the results of such assessments with other interested Member States;
55. Acknowledges the Secretariat's efforts in assisting Member States with safety reassessments of their research reactors and fuel cycle facilities in light of the feedback from the accident at the Fukushima Daiichi Nuclear Power Station, and encourages all Member States with such installations, in particular those that have not yet done so, to consider the Agency's guidance and assistance in this area;
56. Encourages the Agency to extend the activities, safety services and External Events Notification System of the International Seismic Safety Centre to cover tsunamis and volcanoes, encourages Member States to actively participate in this effort and requests the Secretariat to keep Member States informed of these activities;
57. Further encourages Member States to exchange regulatory information and share experiences with regard to new nuclear power plants, taking into account that new nuclear power plants are to be designed, sited, and constructed consistent with the objective of preventing accidents in the commissioning and operation and, should an accident occur, mitigating possible releases of

radionuclides causing long-term off-site contamination and avoiding early radioactive releases or radioactive releases large enough to require long-term protective measures and actions;

58. Encourages the Secretariat to provide for the exchange of information and experience of conducting the safety assessment of the digital Instrumentation and Control system;

59. Encourages the Agency to facilitate the exchange of results of research and development on severe accident management strategies for nuclear power plants;

60. Encourages Member States to develop as necessary and implement severe accident management guidelines in line with operational experience feedback, as well as the lessons learned from the Fukushima Daiichi Nuclear Power Station accident, and requests the Secretariat to support their efforts through training workshops and the development of Safety Standards and related documents;

61. Recognizes that there are ongoing projects to construct transportable nuclear power plants, requests the Secretariat and Member States to continue considering the safety and security aspects related to such facilities throughout their life cycle, including through the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), and requests the Secretariat to organize a technical meeting for information exchange on safety aspects for such power plants;

62. Notes that a number of States have plans to embark or are interested in embarking on nuclear power plants, and encourages Member States that have licensed similar types of reactors to share important nuclear safety knowledge and experience with international bodies and with other operating organizations and regulatory bodies, through bilateral and multilateral mechanisms;

6.

Radiation Safety and Environmental Protection

63. Encourages Member States to align their national radiation protection regulatory programmes to the revised International Basic Safety Standards (BSS) (IAEA Safety Standards Series No. GSR Part 3), and requests the Secretariat to support the effective implementation of the revised BSS in relation to occupational, public and medical exposure, as well as protection of the environment, including the ongoing revision and development of new guidance, and further requests the Secretariat to continue to organize national workshops on implementing GSR Part 3, upon request;

64. Requests the Secretariat to continue supporting the IAEA-OECD/NEA Information System on Occupational Exposure (ISOE) programme, and invites Member States operating nuclear power plants and those planning, constructing, commissioning or decommissioning nuclear power plants to encourage their utilities and authorities to become members of the ISOE programme;

65. Requests the Secretariat to promote the Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR) programme to facilitate the implementation of as low as reasonably achievable (ALARA) practices and effective exposure control, and recommends that Member States provide data on occupational exposure to the ISEMIR programme;

66. Requests the Secretariat, in cooperation with other international organizations, to assist Member States in the application of the new dose limits to the lens of the eye as set out in GSR Part 3, and encourages Member States to make arrangements for monitoring these doses for workers who may receive significant doses;

67. Requests the Secretariat to continue to follow up, in consultation with Member States, on the actions identified by the 2014 IAEA International Conference on Occupational Radiation Protection: Enhancing the Protection of Workers — Gaps, Challenges, and Developments;

68. Requests the Secretariat to assist Member States, upon request, to strengthen their capabilities for the realistic assessment of radiological impacts of material containing enhanced levels of naturally occurring radioactive materials (NORM) and to continue to develop guidance to optimize radiation protection in the management of such materials, taking into account GSR Part 3;
69. Encourages Member States to share safety-relevant experiences and practices in the field of handling NORM and NORM residues;
70. Requests the Agency, in coordination with other international organizations, to continue implementation of the *International Action Plan for the Radiation Protection of Patients*, and the *Bonn Call for Action*, to strengthen the radiation protection of patients and health workers and to enhance the safety of radiological procedures;
71. Encourages the Secretariat, in cooperation with the World Health Organization (WHO), to develop further guidance on the radiation protection principles of justification of medical exposure and optimization of protection and safety in the medical field, including on radiation protection education and training for health professionals, and documenting the individual radiation procedure histories of patients;
72. Encourages Member States to take advantage of regional technical cooperation projects on medical exposure and to use safety reporting and learning systems developed by the Agency for radiological procedures and radiotherapy;
73. Requests the Secretariat to continue developing radiation protection guidance for the regulatory control of the use of human imaging techniques for non-medical purposes;
74. Requests the Secretariat, in cooperation with Member States, the WHO and other relevant international organizations, to assist Member States, as appropriate, to raise awareness of and reduce risks from public exposure due to radon indoors, and further requests the Secretariat to liaise, as appropriate, with the ICRP and UNSCEAR on exposure to radon indoors;
75. Requests the Secretariat to cooperate with relevant international organizations in developing a harmonized framework for the control of radioactivity in food and drinking water;
76. Requests the Secretariat to continue work to develop a technical document to set out activity concentration values for contaminated non-food commodities;
77. Encourages the participation of Member States in the Modelling and Data for Radiological Impact Assessments (MODARIA) programme to foster, develop and maintain capabilities in assessing radiological impacts from radionuclides being released or extant in the environment, and requests the Secretariat to continue development of MODARIA II;
78. Requests the Secretariat to develop specific technical documents to provide guidance on the application of the radiation protection principles of justification and optimization for populations living in, and economic activities carried out in existing exposure situations;
79. Supports the Secretariat's development of updates pertinent to the "*Inventory of Radioactive Materials Resulting from Historical Dumping, Accidents and Losses at Sea (For the Purposes of the London Convention 1972 and Protocol 1996)*";
80. Requests the Secretariat to update its guidance in relation to the application of the principles of exemption and clearance;

81. Requests the Secretariat to further develop guidance on the remediation process for areas affected by past activities and accidents, and to capture lessons learned from nuclear and radiological events, including the Fukushima Daiichi accident;

7.

Transport Safety

82. Urges Member States that do not have national regulatory documents governing the safe transport of radioactive material to adopt and implement such documents expeditiously, calls upon all Member States to ensure that such regulatory documents are in conformity with the applicable edition of the Agency's Regulations for Safe Transport of Radioactive Material, welcomes the ongoing revision of the Regulations to ensure that they remain relevant and up-to-date, and requests the Secretariat to finalize the ongoing update of document GOV/1998/17, entitled "*Safety of transport of radioactive material*";

83. Welcomes the practice of some shipping States and operators of providing timely information and responses to relevant coastal States in advance of shipments in order to address concerns regarding nuclear safety and security, including emergency preparedness, and notes that the information and responses provided should in no case be contradictory to measures of nuclear security and safety of the shipment or of the shipping State;

84. Recalls the issuing of the Best Practices for Voluntary and Confidential Government to Government Communications on the Transport of MOX Fuel, High Level Radioactive Waste and, as appropriate, Irradiated Nuclear Fuel by Sea (INFCIRC/863) in 2014;

85. Calls upon Member States to further enhance mutual confidence, such as through the use of guidelines, voluntary communication practices and tabletop exercises, such as the Tabletop Exercise of the Dialogue of Coastal and Shipping States held on 17 June 2015, which was recognized as a success by its participants, takes note of the useful lessons learned during the Exercise, and requests the Secretariat to provide appropriate support to interested Member States upon their request;

86. Recognizes the very positive developments since 2013 in the dialogue process between shipping and coastal States aimed at improving mutual understanding, confidence-building and enhanced communication in relation to the safe maritime transport of radioactive material and encourages the continuation of this positive dialogue and takes note of the visit by participants to the dialogue process to a transport ship in the United Kingdom, held on 12–13 July 2016, which contributed to the dialogue process by helping the participants deepen their understanding on the stringent safety measures in place for the maritime transport of radioactive material;

87. Takes note that relevant shipping and coastal States invite other Member States to join in the informal dialogue process between coastal and shipping States to improve mutual understanding and confidence regarding shipments of radioactive material and to implement as appropriate, the best practices as contained in document INFCIRC/863, subject to confidentiality and security constraints;

88. Stresses the importance of having effective liability mechanisms in place to ensure prompt compensation for damage incurred during the transport of radioactive material, including maritime transport, and in this context notes the application of the principles of nuclear liability, including strict liability;

89. Calls upon Member States and their regulatory authorities to use the GNSSN and relevant regional networks to build capacity for effective regulation of the safe transport of radioactive material;

90. Encourages efforts to address problems related to denials of and delays in the shipment of radioactive material, particularly shipment by air and calls upon Member States to facilitate the transport of radioactive material, taking full account of the Agency's Regulations for the Safe Transport of Radioactive Material, and to each identify, if they have not done so, a national focal point on denials on shipment of radioactive materials to achieve a satisfactory and timely resolution of this issue;

91. Encourages the Agency to continue to strengthen and widen efforts to make available relevant education and training on the safety and security of radioactive material during transport, including through the Technical Cooperation Programme (TCP) and through the development of synergies between regional training courses and the Agency's work related to denials of shipment, involving to the extent possible experts from the regions concerned, and acknowledges the progress made in that regard, including the preparation and translation of training materials into IAEA official languages;

8.

The Safety of Spent Fuel and Radioactive Waste Management

92. Calls upon Member States to work to continuously improve safety in the management of spent fuel and radioactive waste, in accordance with the relevant IAEA Safety Standards, including work on detailed plans for the decommissioning, storage and subsequent management and disposal of such material;

93. Encourages the Agency as it reviews its guidance documents on the safe management of radioactive waste with a view to ensuring proper planning for waste arising during the lifetime of nuclear facilities and the nuclear fuel cycle, to take into account where applicable available tools of the Agency such as the criteria and indicators developed by INPRO;

94. Encourages the Agency to continue its activities relating to the safety of facilities for the geological disposal of high-level radioactive waste and, where appropriate, spent nuclear fuel, requests the Secretariat to undertake the further development of guidance on safety of geological disposal facilities, which encourages early engagement of the regulatory bodies in the period before the formal licensing process is launched and through all stages of the life cycle, and encourages Member States to share lessons about their relevant regulatory experiences;

95. Welcomes the establishment of the ARTEMIS review service for radioactive waste and spent fuel management, decommissioning and remediation programmes, and encourages Member States to benefit from the service, including follow-up missions, as appropriate;

96. Encourages Member States to engage with all stakeholders, including the general public, in all aspects of radioactive waste management;

97. Encourages Member States to plan for the management of waste arising from a nuclear or radiological emergency, including waste from damaged facilities, and/or fuel where routine strategies are impractical or less than optimal, and where the potential exists for large volumes of radioactive waste resulting from the emergency and/or environmental remediation;

98. Encourages Member States to plan and develop solutions for the safe disposal of radioactive waste and management of spent fuel and to, where appropriate, share experiences and lessons learned in this regard, and put mechanisms in place to ensure resources are available for implementation;

99. Encourages Member States to follow IAEA Safety Standards on classification of radioactive waste;

9.

Safety in Uranium Mining and Processing, Decommissioning and Environmental Remediation

100. Requests the Secretariat to assist Member States, upon request, in implementing Safety Standards and recognized international best practices in uranium production, including management of the resulting waste;

101. Emphasizes the importance of the Agency's activities on decommissioning and remediation, and in light of the anticipated increase in the number of facilities requiring decommissioning, and requests the Secretariat to continue its efforts to facilitate international cooperation in safety assessment and risk management for decommissioning;

102. Requests the Secretariat, in close cooperation with Member States, to follow up on the outcomes of the IAEA *International Conference on Advancing the Global Implementation of Decommissioning and Environmental Remediation Programmes*, held in Madrid in 2016;

103. Encourages Member States to plan for the decommissioning of facilities during the facility design phase, and update as appropriate, and to put mechanisms in place to ensure resources are available for implementation;

104. Encourages the Agency to share, as appropriate, the lessons learned from decommissioning and remediation activities, and encourages the Secretariat and Member States to support initiatives in international cooperation;

105. Requests the Secretariat to assist Member States, upon request, including those phasing out nuclear power and those with damaged facilities, with the identification of decommissioning strategies;

106. Encourages Member States to share lessons learned about actions taken regarding the remediation of radioactively contaminated sites and the resulting waste, and encourages the Secretariat to further develop standards and guidance documents, as appropriate, on the management and disposal of radioactive waste arising from the remediation of existing situations;

107. Recognizes the crucial role of planning for post-accident situations, and requests the Agency to continue to strengthen its guidance on remediation and waste management after a radiological or nuclear accident to assist Member States in facilitating the return of affected areas to safe conditions;

108. Commends the continued efforts of the Secretariat relating to technical coordination for multilateral initiatives to remediate legacy uranium production sites, notably in Central Asia, through the Coordination Group for Uranium Legacy Sites, and encourages the Secretariat to consult relevant Member States in Africa, upon request, with a view to implementing similar initiatives;

109. Requests the Secretariat to support the work of the International Working Forum on Regulatory Supervision of Legacy Sites and, in consultation with Member States, to take into account the recommendations of the Forum in developing IAEA Safety Standards;

110. Encourages Member States to plan for the remediation of contaminated sites and to put mechanisms in place to ensure resources are available for implementation;

10.

Education, Training and Knowledge Management

111. Encourages Member States to develop national strategies for capacity building through training, education and knowledge management, which are key components of a sustainable nuclear safety

infrastructure, and further encourages Member States to ensure that resources are made available for capacity building of this kind;

112. Requests the Secretariat to strengthen and expand its programme of training and education activities, focusing on building institutional, technical and managerial capabilities in Member States, and to continue its efforts to preserve its knowledge and institutional memory relating to nuclear safety, and encourages Member States to consider providing, on a voluntary basis, support to the Secretariat in this regard;

113. Encourages the Secretariat to support and coordinate regional and inter-regional efforts, including through the GNSSN, for the sharing of knowledge, expertise and experience on safety-relevant issues;

114. Encourages Member States to benefit, as appropriate, from the IAEA Systematic Approach to Training (SAT) and other relevant tools for the self-assessment of capacity building programmes at national and organizational level;

11.

Safe Management of Radioactive Sources

115. Calls upon all Member States to ensure that their legislative or regulatory framework includes specific provisions for the safe management of radioactive sources through all stages of the life cycle;

116. Calls upon all Member States to ensure that there is adequate provision, including financial arrangements, as appropriate, for safe and secure storage and disposition pathways for disused sources so that such sources within their territories remain under regulatory control, and encourages all Member States to develop arrangements, as practicable, to permit the return of disused sources to the supplier States or consider other options including the reuse or recycling or disposal of sources wherever possible;

117. Encourages the Secretariat and Member States to strengthen national and multinational efforts to recover orphan sources and maintain control of disused sources, and invites Member States to establish radiation detection systems, as appropriate;

118. Calls upon all Member States to establish and maintain national registers of high-activity sealed radioactive sources;

119. Encourages the Agency to promote the identification of actions to enhance the effective implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and improve the long term management of disused sources;

120. Requests the Secretariat to take note of and consider, as appropriate, the report of the Chairman from the 2016 Open-ended Meeting of Technical and Legal Experts for Sharing of Information on States' Implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources, and calls for the report to be made available in all official languages of the Agency for consideration by Member States;

121. Requests the Secretariat take note of and consider, as appropriate, the report of the Chairman from the 2016 Open-ended Meeting of Legal and Technical Experts to Develop Internationally Harmonized Guidance for Implementing the Recommendations of the Code of Conduct on the Safety and Security of Radioactive Sources in Relation to the Management of Disused Radioactive Sources containing draft supplementary Guidance on the Management of Disused Radioactive Sources, and calls for the report to be made available in all official languages of the Agency for the consideration of Member States;

122. Requests the Secretariat to continue to foster information exchange on implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources;

123. Requests the Secretariat to further facilitate, as appropriate, information exchange between interested Member States on radiation safety aspects of the management of movement of scrap metal or materials produced from scrap metal that may inadvertently contain radioactive material;

12.

Nuclear and Radiological Incident and Emergency Preparedness and Response

124. Encourages Member States to develop and strengthen national, bilateral, regional and international emergency preparedness and response mechanisms and arrangements, including protective measures; to cooperate closely on precautionary measures to minimize long-term consequences, as appropriate; to facilitate timely information exchange during a nuclear or radiological emergency; and to continue to improve bilateral, regional and international cooperation among national experts, competent authorities and regulators to that effect;

125. Requests the Secretariat to work with Member States to refine arrangements for assessment, prognosis and communication, including arrangements for the timely sharing of relevant technical parameters, while making effective use of Member States' capabilities, and continuing to refine the role of the Incident and Emergency Centre (IEC), during an emergency;

126. Encourages Member States to inform and periodically update the Secretariat and other Member States of their capabilities, and to assist the IEC during an emergency;

127. Encourages Member States to establish and maintain effective communication channels between the responsible national authorities at all times, to ensure respective responsibilities are clear and to improve coordination and decision-making process for all types of accident scenarios;

128. Requests the Secretariat to work with Member States to strengthen the IAEA Response and Assistance Network (RANET) to ensure that, if and when requested, timely and effective assistance can be provided, further requests the Secretariat to work with Member States to facilitate, as appropriate, bilateral and multilateral arrangements, and to enhance efforts to establish technical compatibility for international assistance, and encourages Member States to register national capabilities in as many fields as possible in RANET;

129. Requests the Secretariat to provide support to the States Parties to the Assistance Convention and the Early Notification Convention to strengthen technical and administrative procedures that enhance the implementation of both conventions effectively;

130. Requests the Secretariat, in close cooperation with Member States, to continue to develop an effective public communication strategy and to maintain and further develop arrangements to provide Member States, international organizations and the general public with timely, clear, factually correct, objective and easily understandable information during a nuclear or radiological emergency, including the analysis of available information and the prognosis of potential consequences;

131. Requests the Secretariat, in close cooperation with Member States and appropriate relevant international organizations, to continue a programme of international exercises to ensure the effectiveness of the national, regional and international emergency preparedness and response continues to be enhanced;

132. Encourages Member States to continue discussions on the effectiveness of Emergency Preparedness Review (EPREV) missions and further encourages interested Member States to invite EPREV or EPREV follow-up missions on a voluntary basis;

133. Encourages the Secretariat to continue utilizing the International Radiation Monitoring Information System (IRMIS), to work with national contact points towards a public version of the system in a timely manner, and further encourages Member States in a position to do so to provide data to the system;

134. Encourages Member States to consider providing information to the Emergency Preparedness and Response Information Management System (EPRIMS);

135. Encourages Member States to consider the recently published IAEA Safety Standards Series No. GSR Part 7 on Preparedness and Response for a Nuclear or Radiological Emergency in the context of their nuclear or radiological emergency arrangements;

136. Requests the Secretariat to take into consideration, in consultation with Member States, as appropriate, the recommendations of the 2015 International Conference on Global Emergency Preparedness and Response;

137. Requests the Secretariat to make available for the consideration of Member States the outcomes of the Eighth Meeting of the Representatives of Competent Authorities identified under the Early Notification Convention and the Assistance Convention;

13.

Implementation and Reporting

138. Requests the Secretariat to implement the actions called for in this resolution in a prioritized manner within available resources; and

139. Requests the Director General to report in detail at the sixty-first (2017) regular session of the General Conference on implementation of this resolution, and on other relevant developments in the intervening period.