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Nuclear and radiation safety

Resolution adopted on 20 September 2024 during the eleventh plenary meeting

The General Conference,

- (a) <u>Recalling</u> resolution GC(67)/RES/7 and previous General Conference resolutions on matters relating to <u>measures</u> to strengthen international cooperation in nuclear, radiation, transport and waste safety, and emergency preparedness and response,
- (b) <u>Acknowledging</u> 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) <u>Recognizing</u> that strengthening nuclear safety globally requires the resolve of Member States to continuous improvement in the pursuit of high levels of safety,
- (e) <u>Recognizing</u> that participating in and joining international nuclear safety instruments are sovereign decisions of a State, <u>further recognizing</u> that Codes of Conduct and their guidances are voluntary and non-legally binding, and <u>noting</u> efforts towards the widest possible participation in this regard,
- (f) <u>Recognizing</u> the increasing number of countries considering or introducing nuclear power or radiation technology, and the growing importance of international cooperation to strengthen nuclear safety in this regard, including among embarking countries, those with established nuclear power programmes, and industry organizations,
- (g) <u>Recognizing</u> the need to continue providing appropriate technical, human and financial resources for the Agency to implement its nuclear safety activities and to enable the Agency to provide, upon request, the support needed by Member States,

- (h) <u>Recognizing</u> the importance of technical assistance and capacity building in the field of nuclear safety, and <u>reiterating</u> the role of the Agency in supporting all Member States in accessing materials, equipment and technology needed in this regard, upon request,
- (i) <u>Recognizing</u> that embedding and enhancing safety culture is a key element of the peaceful uses of nuclear energy, ionizing radiation and radioactive materials,
- (j) Recognizing that nuclear safety and security have the common aim of protecting people and the environment, while <u>acknowledging</u> the distinctions between the two areas, and <u>affirming</u> the importance of coordination in this regard,
- (k) Noting GC(XXXIV)/RES/533 and GC(XXIX)/RES/444 regarding attacks or threats of attack against nuclear facilities devoted to peaceful purposes, and GC(53)/DEC/13 which recognized the importance attached to safety, security and physical protection of nuclear material and nuclear facilities, and emphasizing the importance of nuclear safety and security regarding peaceful nuclear facilities, sites and materials in all circumstances, and, without prejudice to the views of Member States, noting the IAEA Director General's "seven indispensable pillars for ensuring nuclear safety and security during an armed conflict, which derive from the IAEA safety standards and nuclear security guidance", advanced on 2 March 2022,
- (l) <u>Noting</u> the relevance of the "five principles" presented by the IAEA Director General in the context of the ZNPP to the United Nations Security Council on 30 May 2023,
- (m) Recognizing the prime responsibility of licence holders for nuclear safety,
- (n) Recognizing the importance of Member States establishing and maintaining effective and sustainable regulatory infrastructures with due consideration for available international experience,
- (o) <u>Noting</u> that some Member States embarking on or expanding nuclear power programmes have benefited from Regulatory Cooperation Forum (RCF) support activities to assist in their development of competent regulatory organizations and effective regulatory frameworks,
- (p) <u>Acknowledging</u> that research, development, the introduction of innovative methods and technologies and the availability of research and testing facilities are of continuing and long-term fundamental importance in improving nuclear safety worldwide,
- (q) <u>Acknowledging</u> the need to continue to enhance and give due priority to the safety of nuclear installations and relevant facilities and activities,
- (r) Acknowledging that advances in science, technology and engineering present opportunities to enhance nuclear safety and that training and capacity building should continue to evolve in response, and recognizing potential benefits and challenges of emerging and innovative technologies, inter alia artificial intelligence, and the need for international cooperation in this regard,
- (s) 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 obligations of the respective Contracting Parties, and recognizing the need for effective and sustainable implementation of these conventions by the respective Contracting Parties, and recalling the central role of the

Agency in promoting adherence to all international nuclear safety conventions concluded under its auspices,

- (t) <u>Noting</u> the actions agreed by the CNS Contracting Parties to address the major common issues arising from country group discussions, as well as good practices, areas of good performance, challenges and suggestions identified by the Contracting Parties at the Joint 8th and 9th Review Meeting of the CNS, and <u>noting</u> with concern the reported challenge in the implementation of the CNS commitments and responsibilities,
- (u) <u>Noting</u> the outcomes of the 7th Review Meeting of the Contracting Parties to the Joint Convention, including the actions taken to promote adherence and active participation in the Joint Convention, overarching issues and identified good practices and areas of good performance, challenges and suggestions identified for Contracting Parties, and <u>noting</u> the importance of the topical discussion during the 7th Review Meeting on stakeholder engagement relating to the management of radioactive waste from decommissioning and legacy sites,
- (v) <u>Noting</u> the importance of improving the effectiveness and efficiency of the review processes under the Joint Convention and the CNS, and the actions agreed in that regard by the Contracting Parties;
- (w) <u>Recalling</u> the objectives of the Code of Conduct on the Safety of Research Reactors as well as the Code of Conduct on the Safety and Security of Radioactive Sources and its Guidance on the Import and Export of Radioactive Sources and its Guidance on the Management of Disused Radioactive Sources,
- (x) Recalling that States have respective obligations or commitments 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 and the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention),
- (y) Recognizing that the increase in frequency and severity of weather-related hazards may have an impact on nuclear safety,
- (z) 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 further enhance the safety and security of international transport,
- (aa) Recognizing that denials of and delays in shipment of nuclear and radioactive materials can affect the provision of medical diagnosis and treatment, the selection of routes and modes of shipment, and the predictability of transport,
- (bb) <u>Recognizing</u> that denials of and delays in shipment of nuclear material and radioactive materials, including with associated equipment, may impair peaceful applications of nuclear technology and have temporal implications for safety and security,
- (cc) <u>Noting</u> the need for the Agency to continue to keep abreast of safety matters related to scientific and technological innovations, including with regard to transportable nuclear power plants (TNPPs) and small and medium sized or modular reactors (SMRs),
- (dd) Noting that there are ongoing projects to construct and deploy TNPPs and SMRs, and also noting that these installations should be developed and operated pursuant to the existing safety

frameworks where applicable, including the Regulations for the Safe Transport of Radioactive Material, and, in the absence of applicable frameworks, so as to achieve the highest standards of safety that can reasonably be achieved,

- (ee) Noting the Agency-wide Platform on SMRs and their Applications (SMR Platform) to ensure a cross departmental approach and to provide integrated support, where applicable, to Member States, upon request, on all aspects of the safe and secure development and deployment of SMRs and advanced nuclear reactors, and further noting the Agency's Nuclear Harmonization and Standardization Initiative (NHSI), and the work of other international organizations, initiatives and Member States on nuclear safety improvements,
- (ff) Noting the upcoming IAEA International Conference on Small Modular Reactors and their Applications in October 2024;
- (gg) Recalling maritime and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments,
- (hh) <u>Recalling</u> resolution GC(67)/RES/7 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,
- (ii) <u>Recalling</u> 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),
- (jj) Recognizing that transparent communication with and outreach to the public and interested parties enhances public awareness regarding nuclear safety and benefits derived from and potential effects of ionizing radiation,
- (kk) <u>Recognizing</u> that nuclear and radiological incidents, accidents and emergencies and their consequences may raise public concerns about nuclear energy and about the effects of ionizing radiation on present and future generations and the environment, and that some emergencies may have transboundary effects,
- (ll) Recognizing that emergency preparedness and response arrangements may need to be reviewed or updated by Member States to address a potential nuclear accident at nuclear installations including inter alia in armed conflict or subject to armed attacks,
- (mm) <u>Emphasizing</u> the importance of Member States and relevant international organizations responding to nuclear and radiological emergencies in a timely, effective and transparent manner,
- (nn) Recognizing the importance of a well-developed radiation protection strategy comprised with due consideration to the general principles of justification, optimization, dose limitation and protection of present and future generations, as well as communication arrangements, as an important component of effective emergency preparedness and response,
- (00) Acknowledging the Secretariat's role in response to nuclear or radiological incidents, accidents and 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 affected State(s), of incident or emergency information to Member States and the public, as well as emphasizing the importance of effective facilitation and coordination of assistance by the Secretariat, upon request,

- (pp) Recognizing that some nuclear accidents and protective actions may have serious long-term effects on people's health and well-being, including mental health and non-radiological health impacts, and that these deserve due consideration,
- (qq) <u>Emphasizing</u> the importance of capacity building, which should, among other things, take into consideration lessons learned and expertise, in establishing and maintaining an adequate nuclear, radiation, transport and waste safety and emergency preparedness and response infrastructure.
- (rr) <u>Recalling</u> the IAEA Fundamental Safety Principles, according to which radioactive waste must be managed in such a way as to avoid imposing an undue burden on future generations, and <u>emphasizing</u> the importance of the development of national long-term programmes or approaches for the safe management of spent fuel and radioactive waste, including for waste disposal and storage, where appropriate, containing outcomes which are achievable and timely,
- (ss) <u>Reaffirming</u> the importance of planning and implementing long-term safe management for spent fuel and radioactive waste, alongside ensuring that spent fuel and radioactive waste management practices are feasible, and adequately protect people and the environment against radiation risks,
- (tt) Recognizing the importance of Member States voluntarily performing self-assessments and using the Agency's peer review services as effective tools for continued efforts to evaluate, maintain effective practices and further improve their respective nuclear safety, as well as shared learning with other Member States,
- (uu) Recognizing that regional entities of regulatory authorities strengthen regional efforts to improve safety through the exchange of information and experience, 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 such as the European Union, FORO and other stress tests and topical peer reviews, welcoming the information on these reassessments provided by FORO to the Ibero-American Summit of Heads of State and Government, recognizing also regional cooperation by the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) in emergency preparedness and response, environmental radiation monitoring and the transport of radioactive material in the Asia-Pacific region, and further recognizing that such activities can be of interest to other organizations or regulatory authorities,
- (vv) Recognizing that naturally occurring radiation constitutes by far the largest source of all exposures,
- (ww) <u>Underscoring</u> that medical uses of ionizing radiation constitute by far the largest source of artificial exposure, and <u>emphasizing</u> the need for enhanced efforts at national level to justify medical exposures, and to optimize radiation protection for patients, health workers, carers and comforters of patients, and volunteers subject to exposure,
- (xx) <u>Recognizing</u> 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,
- (yy) <u>Emphasizing</u> the importance of the establishment, implementation, regular exercise and continuous improvement of relevant national, bilateral, regional and international emergency preparedness and response mechanisms and arrangements, and contributing to the harmonization

- of national protective actions and other response actions within their State as outlined in GSR Part 7,
- (zz) <u>Emphasizing</u> the need to prepare for decontamination or remediation following a nuclear or radiological incident, accident or emergency, which may involve planning for the safe management of large volumes of waste or unusual waste forms,
- (aaa) <u>Noting</u> the importance of decommissioning programmes and spent fuel and radioactive waste management activities as facilities reach end of life,
- (bbb) <u>Recalling United Nations General Assembly resolution A/RES/78/71 of 7 December 2023</u> related to the effects of atomic radiation, and the Board decision in March 1960 on health and safety measures (INFCIRC/18/Rev.1),
- (ccc) <u>Noting</u> the guidance of the World Health Organization (WHO) for controlling radionuclides in drinking water, and the Codex Committee on Contaminants in Food on radionuclides in food and drinking water in non-emergency situations,
- (ddd) <u>Recalling</u> 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 <u>noting</u> that these instruments can provide the basis for establishing a global nuclear liability regime based on the principles of nuclear liability,
- (eee) 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,
- (fff) Recognizing the importance of coordination between the Agency and the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/NEA), when appropriate, with respect to conventions concluded under their auspices related to civil nuclear liability,
- (ggg) <u>Acknowledging</u> that diligent cross-border cooperation contributes to effective and harmonized emergency preparedness and response (EPR) and that participation in joint exercises on bilateral and/or multilateral level as appropriate also enhances national EPR,
- (hhh) <u>Looking forward to</u> the International Conference on Research Reactors: Achievements, Experience and the Way to a Sustainable Future, Vienna, Austria, from 11 to 15 November 2024,
- (iii) <u>Looking forward</u> to the International Conference on Enhancing Nuclear Safety and Security Through Technical and Scientific Support Organizations (TSOs): Challenges and Opportunities in a Rapidly Changing World, to be held in Vienna, Austria, from 2 to 6 December 2024,

1. General

- 1. <u>Urges</u> the Agency to continue to strengthen its efforts to maintain and improve nuclear, radiation, transport and waste safety and emergency preparedness and response, and to enhance its support and assistance to Member States, upon their request;
- 2. <u>Encourages</u> Member States to develop, maintain and improve their nuclear and radiation safety infrastructure and related scientific and technical capabilities, including through international nuclear cooperation; and both <u>requests</u> the Secretariat and <u>encourages</u> Member States in a position to do so, to assist in this regard, upon request, in a coordinated, efficient and sustainable manner;
- 3. <u>Encourages</u> Member States to develop and maintain strategies, approaches and contingency plans in managing extraordinary circumstances, such as the COVID-19 pandemic, extreme natural disasters and armed conflicts, in order to ensure nuclear and radiation safety;
- 4. <u>Encourages</u> the Agency to continue providing technical support and assistance to interested Member States in maintaining and improving nuclear safety and security for nuclear facilities and activities involving radioactive sources, including during armed conflicts, and to enhance this support and assistance upon request;
- 5. <u>Requests</u> the Secretariat, in close consultation with Member States, to continue identifying potential benefits and challenges of artificial intelligence in support of nuclear safety, to provide relevant technical assistance to Member States upon request, and to keep Member States informed of any progress;
- 6. <u>Requests</u> the Secretariat to provide Member States considering or introducing uranium mining, research reactors, radiation technology or a nuclear power programme, upon request, with assistance and guidance on how to use the Agency's safety services in support of the development of their nuclear and radiation safety regulatory infrastructure;
- 7. Acknowledges the actions undertaken by Contracting Parties of the CNS, the Joint Convention, the Early Notification Convention and the Assistance Convention in response to the Fukushima Daiichi nuclear power plant accident; recalls the IAEA Action Plan on Nuclear Safety, the IAEA Report on the Fukushima Daiichi nuclear power plant accident, the Vienna Declaration on Nuclear Safety on principles for the implementation of the objective of the CNS to prevent accidents and mitigate radiological consequences, and the experience from their implementation by Member States; requests the Agency to continue to build upon them and use them for refining its nuclear safety strategy and programme of work, including priorities, milestones, timelines and performance indicators; and requests that the Secretariat continue to report periodically in this regard in the lead up to the March Board of Governors and the General Conference;
- 8. <u>Encourages</u> Member States to continue to enhance safety culture at all levels in their nuclear and radiation activities, and <u>requests</u> the Secretariat to support Member States, upon request, in promoting, assessing, and improving safety culture in both regulatory bodies and licensees;
- 9. <u>Requests</u> 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 interface in a timely manner, and <u>encourages</u> the Agency to continue to develop safety and security publications, to ensure consistency and to foster culture accordingly;
- 10. <u>Encourages</u> the Secretariat to coordinate its programmatic activities in safety with other relevant activities of the Agency, and to ensure consistency of safety aspects of relevant Agency publications;

- 11. <u>Encourages</u> Member States to join relevant regional safety for and networks, and to participate and work in cooperation with other members so that the benefits of membership can be fully realized and <u>requests</u> the Secretariat to continue to assist Member States in the establishment, maintenance and functioning of such fora and networks;
- 12. Requests the Secretariat to strengthen its cooperation with the regional regulatory organizations or expert advisory groups, such as FORO, ENSREG and ASEANTOM, in areas of mutual interest, and <u>further requests</u> the Secretariat to promote wide dissemination of technical documents and outcomes of projects developed by these entities, such as the forthcoming technical documents about FORO's results on the inadvertent presence of radioactive material in metal recycling, cyclotron facilities for the production of radioisotopes and risk analysis in industrial radiography practices;
- 13. <u>Encourages</u> Member States to share safety-relevant experiences, findings, lessons learned and analytical tools among regulatory authorities, technical and scientific support organizations, operators and industry, as appropriate, <u>requests</u> the Secretariat to foster such sharing, and <u>further encourages</u> Member States to benefit from, as appropriate, interaction within international organizations and fora such as the OECD/NEA and the World Association of Nuclear Operators (WANO);
- 14. <u>Encourages</u> 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 nuclear and radiological facilities and activities, on the basis of scientific data as available, and <u>encourages</u> Member States to provide for consultation with their public as appropriate, and to reach out to the younger generations with clear and concise communications;
- 15. <u>Encourages</u> the Secretariat and Member States to continue to make effective use of the Agency's technical cooperation resources for the further enhancement of safety;
- 16. <u>Encourages</u> Member States to exercise effective supply chain management and to increase efforts in detecting non-conforming, counterfeit, fraudulent or suspect supplied items and prevent them from being installed in the facilities;

2.

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

- 17. <u>Urges</u> 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 consider becoming Contracting Parties to the CNS;
- 18. <u>Urges</u> all Member States that have not yet done so, particularly those managing radioactive waste or spent fuel, to become Contracting Parties to the Joint Convention;
- 19. <u>Stresses</u> the importance of CNS and Joint Convention Contracting Parties fulfilling their respective obligations stemming from these Conventions and reflecting these in their actions to strengthen nuclear safety and in particular when preparing National Reports, and actively participating in peer reviews for CNS and Joint Convention Review Meetings;
- 20. <u>Requests</u> the Secretariat to provide full support for the CNS and Joint Convention Review Meetings, and to consider addressing their outcomes in the Agency's activities, as appropriate and in consultation with Member States;
- 21. <u>Urges</u> all Member States that have not yet done so to become Contracting Parties to the Early Notification Convention and the Assistance Convention, and <u>stresses</u> the importance of Contracting

Parties fulfilling the obligations stemming from these Conventions, and actively participating in regular meetings of the Representatives of Competent Authorities;

- 22. <u>Requests</u> the Secretariat, in collaboration with regional and international organizations and Member States, to continue its activities to promote the importance of conventions concluded under the auspices of the Agency and to assist Member States upon request with adherence, participation and implementation as well as strengthening of their related technical and administrative procedures;
- 23. <u>Encourages</u> all Member States to make political commitments to the voluntary and non-legally binding Code of Conduct on the Safety and Security of Radioactive Sources, its Guidance on the Import and Export of Radioactive Sources, and its Guidance on the Management of Disused Radioactive Sources, and to implement these, as appropriate, in order to maintain effective safety and security of radioactive sources throughout their life cycle, and <u>requests</u> the Agency to continue supporting Member States in this regard and to promote these instruments;
- 24. <u>Encourages</u> Member States to apply the guidance of the Code of Conduct on the Safety of Research Reactors at all stages in the lifetime of research reactors, including planning, and <u>encourages</u> Member States to exchange their regulatory and operating information and experience with regard to research reactors;
- 25. <u>Encourages</u> the Secretariat in close consultation with Member States to take into account recommendations from the Open-ended Meeting of Technical and Legal Experts on States' Implementation of the Guidance on the Import and Export of Radioactive Sources, held in May 2024, and <u>encourages</u> relevant Member States, who have not already done so, to appoint or update their Points of Contact for Facilitating the Export and/or Import of Radioactive Sources, and answer the Importing and Exporting States Questionnaire;
- 26. <u>Requests</u> the Secretariat to continue to support Member States, upon request, in application of the guidance of the Code of Conduct on the Safety of Research Reactors;
- 27. <u>Urges</u> Member States that have not already done so to establish and sustain a regulatory body that is effectively independent in its regulatory decision-making, is competent, and has the legal authority, and the appropriate human, financial and technical resources for fulfilling its responsibilities, and <u>encourages</u> Member States who have not already done so, 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 and ionizing radiation;
- 28. <u>Urges</u> Member States to strengthen regulatory effectiveness in the field of nuclear, radiation, transport and waste safety, and emergency preparedness and response, and to continue promoting cooperation and coordination among regulatory bodies within a Member State, as appropriate, and among Member States;
- 29. <u>Notes</u> the International Conference on Effective Nuclear and Radiation Regulatory Systems: Preparing for the Future in a Rapidly Changing Environment held in February 2023, and <u>looks forward</u> to the next conference;
- 30. <u>Requests</u> the Secretariat to help Member States' regulatory bodies, upon request, to establish systematic regulatory experience feedback mechanisms;
- 31. <u>Encourages</u> Member States to continue to enhance their national regulatory inspection programmes, including, as appropriate, by applying a risk-informed, performance-based and graded approach;

- 32. <u>Encourages</u> Member States to consider establishing organizations to provide technical and scientific support to regulatory functions, as appropriate, and <u>requests</u> the Secretariat to promote cooperation between Member States, including through the Technical and Scientific Support Organization (TSO) Forum and regional TSO networks, and to assist, upon request, in this regard, including in applying the TSO Self Capability Assessment (TOSCA) methodology;
- 33. <u>Urges</u> Member States to establish or maintain systematic and robust regulatory decision-making processes that take into account scientific and technological knowledge, innovations and expertise, including, where appropriate, from TSOs and other relevant institutions, while recognizing the importance of technical assistance by the Agency in this regard;
- 34. <u>Encourages</u> the Secretariat to continue communication with Member States on a regular basis regarding the work of the International Nuclear Safety Group (INSAG), its major outcomes and recommendations of INSAG to the Director General;
- 35. <u>Encourages</u> Member States to give due consideration to the possibility of joining the international nuclear liability instruments, as appropriate, and to work towards establishing a global nuclear liability regime;
- 36. <u>Requests</u> 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 Agency or the OECD/NEA, taking into account the recommendations of the INLEX in response to the IAEA Action Plan on Nuclear Safety;
- 37. <u>Recognizes</u> the valuable work of INLEX, and <u>takes note</u> 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, <u>encourages</u> the continuation of INLEX, especially for its support for the Agency's outreach activities to facilitate the achievement of a global nuclear liability regime, and <u>requests</u> that INLEX, via the Secretariat informs Member States on a regular and transparent basis about the work of INLEX and its recommendations to the Director General;

3. Agency Safety Standards

- 38. <u>Encourages</u> Member States to implement measures nationally, regionally and internationally to ensure and continuously enhance, as necessary, nuclear, radiation, transport and waste safety, as well as emergency preparedness and response, taking into account the Agency's Safety Standards;
- 39. <u>Encourages</u> Member States to use the Agency's Safety Standards in their national regulatory programmes, as appropriate, and to periodically review national legislation, regulations and guidance taking into account the latest revision of the Agency's Safety Standards and report on progress in appropriate international fora;
- 40. <u>Urges</u> all Member States to be mindful of the importance of nuclear safety and security regarding peaceful nuclear facilities and materials in all circumstances, and, without prejudice to the views of Member States, <u>notes</u> the IAEA Director General's "seven indispensable pillars for ensuring nuclear safety and security during an armed conflict, which derive from the IAEA safety standards and nuclear security guidance", advanced on 2 March 2022;
- 41. <u>Takes note</u> of the relevance of the "five principles" presented by the IAEA Director General in the context of the ZNPP to the United Nations Security Council on 30 May 2023;

- 42. <u>Requests</u> the Agency to continue to support the work of the Commission on Safety Standards (CSS) and the Safety Standards Committees;
- 43. <u>Encourages</u> the Secretariat to continue to improve the publication process, in particular the editing of drafts, and address the coherence of the translation of Safety Standards into all Agency official languages;
- 44. <u>Requests</u> further efforts of the Secretariat to enable representatives of all Member States, including those considering introducing nuclear power or radiation technology, to participate in the work of the CSS and Safety Standards Committees;
- 45. Requests the Agency to continuously review and, if necessary, strengthen, in close consultation with Member States, as broadly and effectively as possible, the Agency's Safety Standards, and to reflect the lessons learned from extraordinary circumstances such as the COVID-19 pandemic and armed conflicts, and the potential effects of climate change in the relevant Agency Safety Standards, as appropriate;
- 46. Requests the Secretariat to promote feedback tools such as the Nuclear Safety and Security Online User Interface (NSS-OUI) and the online portal for the CSS and Safety Standards Committees to collect Member State views on the use of the Safety Standards;
- 47. <u>Encourages</u> the Secretariat, in close consultation with Member States, to continue its review of nuclear safety standards to identify potential challenges in applying the Nuclear Safety Standards including inter alia in armed conflict situations, and to keep Member States informed;
- 48. <u>Encourages</u> the Agency to keep up to date with the latest relevant findings of research supporting nuclear safety expertise as well as scientific and technological innovations, to enhance technical capabilities accordingly and to strengthen the Agency's Safety Standards as appropriate;
- 49. <u>Requests</u> the Agency to strengthen education and training programmes aimed at increasing awareness of the Agency's Safety Standards;
- 50. <u>Requests</u> the Secretariat to continue its close cooperation, where appropriate, with the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), the International Commission on Radiological Protection (ICRP) and other relevant international organizations in the development of Agency Safety Standards;
- 51. <u>Requests</u> the Secretariat to continue updating the Agency's Safety Standards following the process of the CSS and Safety Standards Committees, including updates based on the results of the applicability study to small modular reactors and advanced reactors, and to keep abreast of any new developments and challenges in this regard;

4. Self-assessments and the Agency's Peer Review and Advisory Services

- 52. <u>Encourages</u> Member States to carry out regular self-assessments of their domestic nuclear, radiation, transport and waste safety, as well as their emergency preparedness and response measures, taking into account the Agency's self-assessment tools and to make the outcomes publicly available on a voluntary basis;
- 53. <u>Further encourages</u> Member States, including those considering introducing nuclear power or radiation technology, on a voluntary basis, to regularly use advisory services, to host Agency peer review and associated follow-up missions, at appropriate phases, to make findings and outcomes publicly available and to implement recommended actions in a timely manner;

- 54. <u>Encourages</u> Member States in a position to do so to continue making the necessary expertise available to the Secretariat for Agency safety peer reviews and advisory services and <u>further encourages</u> the Secretariat to make available training courses for future reviewers;
- 55. Requests that the Secretariat continues to provide for and promote the regular interaction of the Peer Review and Advisory Services Committee with Member States and, in close consultation and coordination with Member States, continues to assess and strengthen the overall structure, effectiveness and efficiency of services within the purview of the Committee, and to report to the Board of Governors on the outcomes of this common effort;
- 56. Requests the Secretariat to continue improving the effectiveness and efficiency of Integrated Regulatory Review Service (IRRS) and Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) peer review missions, and to adjust their guidelines to best meet Member States' needs, using lessons learned from relevant past experiences, in close cooperation with Member States;
- 57. Requests the Secretariat to continue efforts in support of long-term safe operation of nuclear installations, and encourages Member States to make use of Agency safety peer review services such as Safety Aspects of Long Term Operation (SALTO) or Operational Safety Review Team (OSART) on long-term safe operation of nuclear power plants and research reactors and to make use of the Agency peer review service on Safety Evaluation of Fuel Cycle Facilities During Operation (SEDO);
- 58. <u>Encourages</u> Member States operating research reactors to request, as appropriate, Agency peer review missions, including Integrated Safety Assessment of Research Reactors (INSARR) and Operation and Maintenance Assessment for Research Reactors (OMARR) review missions;
- 59. <u>Requests</u> the Secretariat to continue to cooperate with Member States and the WHO to ensure that the Agency's Emergency Preparedness Review (EPREV) service coordinates with the WHO's Joint External Evaluations for the International Health Regulations in the area of radiation emergencies;

5. Nuclear Installation Safety

- 60. <u>Encourages</u> all Member States to contribute to the realization of CNS objectives, including those contained in the Vienna Declaration on Nuclear Safety on Principles for the Implementation of the Objective of the CNS to Prevent Accidents and Mitigate Radiological Consequences, inter alia through the implementation of the relevant provisions of this Resolution and <u>calls upon</u> all Contracting Parties to the CNS to address the Challenges and Suggestions from their review process in a timely manner and <u>recommends</u> that all Contracting Parties take into account the major common issues as well as good practices accordingly;
- 61. Renews the request to the Secretariat, in consultation with all Member States, using the safety issues highlighted in the summary report of the Joint 8th and 9th Review Meeting of the Contracting Parties of the CNS, to identify issues of particular relevance for civilian reactors not covered by the scope of the CNS;
- 62. <u>Calls upon</u> all Member States with nuclear installations that have not yet done so to establish and maintain 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, including via the Agency's web-based reporting systems related to operational experience;

- 63. <u>Encourages</u> Member States to participate in the Agency's NHSI and <u>requests</u> the Secretariat to report to Member States on the progress of and expected outcomes from NHSI activities, and to continue to consult closely with Member States on these activities;
- 64. <u>Encourages</u> Member States embarking on nuclear programmes to consider requesting assistance in site safety review and capacity building of both regulator and operator organizations in relation to site selection and site safety assessment;
- 65. Recalls the 29th IAEA Fusion Energy Conference in October 2023 and requests the Secretariat to organize meetings and activities on the safety of fusion energy, in a coordinated cross-departmental manner, using the findings and the experience of Member States planning to deploy fusion energy to develop relevant publications to inform the timely development or revision of safety standards applicable to fusion energy by the CSS and the Safety Standards Committees;
- 66. <u>Encourages</u> Member States to address ageing management, including physical ageing and obsolescence, throughout the lifetime of nuclear installations, and to share lessons learned from available international experience, as appropriate, and <u>further requests</u> the Secretariat to support Member States in this regard;
- 67. 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, and requests the Secretariat to continue to facilitate information exchange on experiences and lessons learned in this regard;
- 68. <u>Encourages</u> Member States that have not already done so to perform safety assessments, including at multi-unit sites or SMRs at remote sites, to evaluate the robustness of nuclear power plants and other installations against one or more plausible extreme events, with due account taken for the effects of climate change, in particular related to the increased frequency and intensity of extreme weather conditions, and <u>encourages</u> the Secretariat to continue supporting Member States in this regard by considering updating technical guidance for site and design evaluation to protect nuclear installations against external hazards, in consultation with Member States;
- 69. <u>Encourages</u> Member States to further their understanding of the impact of the increase in frequency and severity of weather-related hazards on nuclear installations, <u>encourages</u> the Secretariat to continue assisting Member States in their efforts, upon their request, and <u>notes</u> the launching of the coordinated research project to focus on how climate change and severe weather could impact the safety of nuclear installations;
- 70. <u>Encourages</u> the Agency to continue, as appropriate, activities relating to the safety of multi-unit sites, in a manner which facilitates Member States' development and application of new technologies;
- 71. <u>Further encourages</u> Member States to exchange regulatory information and share experiences with regard to new nuclear power plants and advanced reactors, including SMRs and Generation IV reactors, taking into account that new nuclear power plants are to be designed, sited, and constructed consistent with the objective of preventing accidents and, should an accident occur, mitigating possible releases of radionuclides causing long-term off-site contamination and avoiding potential radioactive releases, and <u>encourages</u> Member States to ensure that new reactor technologies take into account lessons from the Fukushima Daiichi nuclear power plant accident;

- 72. <u>Requests</u> the Secretariat to continue identifying issues important to safety of operational and new nuclear power plants and also advanced reactors, including through the organization of meetings and conferences such as the International Conference on Topical Issues in Nuclear Installation Safety;
- 73. <u>Encourages</u> the Secretariat to provide for the exchange of information on and experience in conducting the safety assessment of digital instrumentation and control systems;
- 74. <u>Encourages</u> the Agency to facilitate the exchange of results of research and development on severe accident management strategies for nuclear power plants;
- 75. <u>Encourages</u> Member States to share information on research programmes needed to ensure availability and durability of scientific expertise to support nuclear safety;
- 76. <u>Encourages</u> Member States to develop as necessary and implement severe accident management guidelines taking into account, inter alia, lessons learned from the Fukushima Daiichi nuclear power plant accident, and requests the Secretariat to support their efforts through training workshops;
- 77. Requests the Secretariat, in close cooperation with Member States, to continue to support the Agency's Fuel Incident Notification and Analysis System (FINAS), the International Reporting System for Operating Experience (IRS) and the Incident Reporting System for Research Reactors (IRSRR), and invites Member States to benefit from participation in these systems;
- 78. <u>Calls upon</u> the Secretariat to continue considering the safety and security aspects, including emergency preparedness and response, of TNPPs and SMRs throughout their life cycle, including through the Small Modular Reactor Regulators' Forum, the NHSI and its regulatory track and, where relevant, the NHSI industry track and the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), and to draw upon the knowledge and work of other international organizations, initiatives and Member States, on nuclear safety improvements, and <u>renews its request</u> to the Secretariat to continue to organize meetings and activities on TNPPs and SMRs, with a view to using their findings to consider, under the common existing requirements and legal instruments, the various safety aspects of such power plants, including their transport, as well as identifying, understanding and addressing regulatory challenges related to their lifecycles;

6. Radiation Safety and Environmental Protection

- 79. Encourages Member States to align their national radiation protection programmes to the revised International Basic Safety Standards (GSR Part 3), and requests the Secretariat to support the effective application of GSR Part 3, in relation to occupational, public and medical exposure under planned exposure situations, emergency exposure situations and existing exposure situations, as well as protection of the environment, and further requests the Secretariat to continue to organize national and regional workshops on applying GSR Part 3, upon request;
- 80. <u>Invites</u> Member States operating nuclear power plants and those considering introducing nuclear power, to encourage their utilities and authorities to become members of the IAEA-OECD/NEA Information System on Occupational Exposure (ISOE) programme, and <u>requests</u> the Secretariat to assist in this regard and to continue supporting the ISOE programme;
- 81. <u>Requests</u> the Secretariat to promote and to assist Member States, upon request, in using the Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR) to strengthen the radiation protection of workers subject to exposure, and <u>recommends</u> that Member States provide data on occupational exposure to the ISEMIR programme;

- 82. <u>Requests</u> the Secretariat to make recommendations and assist Member States, upon request, to enhance radiation protection of workers by utilizing efficient and effective dosimetry techniques, and <u>recalls</u> the 2022 International Conference on Occupational Radiation Protection in Geneva, Switzerland, in cooperation with the International Labour Organization (ILO);
- 83. 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 material (NORM), and to assist Member States in managing NORM, including technologically enhanced NORM (TENORM) and NORM residues and waste, in particular for the final treatment and safe storage of residues, including by organizing national and regional workshops and training on these topics;
- 84. <u>Calls upon</u> Member States receiving assistance from the Agency to update periodically information in the Agency's Radiation Safety Information Management System (RASIMS) so as to enable them and the Secretariat to identify the technical assistance needed to help strengthen their national radiation safety infrastructure for existing and planned use of radiation sources;
- 85. Requests the Agency, in cooperation with the WHO and in coordination with other international organizations, to strengthen the radiation protection of patients, health professionals, carers and comforters of patients, and volunteers subject to exposure and to enhance the safety of radiological procedures, taking into account relevant UNSCEAR reports;
- 86. Requests the Secretariat to promote regional technical cooperation projects on medical exposure and encourages Member States to use safety reporting and learning systems developed by the Agency for radiological procedures and radiotherapy;
- 87. <u>Requests</u> the Secretariat, upon request by Member States, to continue to assist with the implementation of radiation protection guidance for the regulatory control of the use of human imaging techniques for non-medical purposes;
- 88. <u>Encourages</u> Member States to assess the extent of public and occupational exposure to radon in homes, schools and other buildings, and workplaces and, where relevant, to take appropriate actions to reduce exposure taking into account the Agency's Safety Standards, and <u>requests</u> the Secretariat, in cooperation with Member States, the WHO and other relevant international organizations, to assist Member States in this regard;
- 89. <u>Urges</u> the Secretariat, following work of the Codex Committee on Contaminants in Foods, in collaboration with the FAO, WHO and interested Member States, to continue promoting discussion and potential application of the publications 'Exposure Due to Radionuclides in Food Other Than During a Nuclear or Radiological Emergency', parts 1 and 2;
- 90. <u>Urges</u> the Secretariat, recalling resolution GC(67)/RES/7, to develop, in consultation with Member States and relevant international organizations, a guidance document describing the scope of regulatory control related to the amount of radionuclides (activity) in commodities and consumer goods supplied for public use by, inter alia, synthesizing existing requirements and regulations on radiation protection applicable to control of commodities and consumer goods;
- 91. Requests the Secretariat to continue its work in order to develop a Safety Report on international trade of consumer goods containing radionuclides, in consultation with Member States and relevant international organizations;
- 92. <u>Encourages</u> the Secretariat to promote international consistency in applying the Safety Guides on the Application of the Concepts of Exemption and Clearance to facilitate safe transboundary shipments of materials;

93. <u>Requests</u> the Secretariat to continue updating 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) as appropriate;

7. Transport Safety

- 94. <u>Urges</u> Member States that do not have a national regulatory framework governing the safe transport of radioactive material to adopt and implement such a framework expeditiously, and <u>calls upon</u> all Member States to ensure that such a regulatory framework is in conformity with the applicable edition of the Agency's Regulations for the Safe Transport of Radioactive Material (SSR-6);
- 95. <u>Stresses</u> the importance of having effective liability mechanisms to ensure prompt compensation for damage incurred during the transport of radioactive material, including maritime transport, and in this context <u>notes</u> the application of the principles of nuclear liability, including strict liability;
- 96. <u>Calls upon</u> Member States to facilitate the transport of radioactive material, and to appoint and inform the IAEA, if they have not done so, a national focal point on denials of shipment of radioactive materials to achieve a satisfactory and timely resolution of this issue;
- 97. <u>Takes note</u> of the work of the Denial of Shipment Working Group in compliance with resolutions GC(66)/RES/6 and GC(67)/RES/7, and <u>urges</u> the Secretariat to assist interested Member States to develop concrete solutions to effectively address denials of shipment at the earliest, in order to overcome the sustained challenges in this regard;
- 98. <u>Invites</u> the Secretariat to continue working with the relevant UN specialized agencies, including the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), and other relevant organizations such as the regional United Nations economic commissions to increase awareness and knowledge about the safe and secure transport of radioactive material;
- 99. <u>Encourages</u> the Agency to continue to strengthen and widen efforts to make available education and training on the safety of radioactive material during transport, and <u>acknowledges</u> the progress made in that regard, including the preparation of training materials and their translation into Agency official languages;
- 100. <u>Welcomes</u> the practice of some shipping States and operators of providing timely information and responses to relevant coastal States in advance of maritime transport shipments in order to address concerns regarding nuclear safety and security, including emergency preparedness, and <u>notes</u> 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;
- 101. <u>Calls upon</u> Member States to further enhance mutual confidence, such as through the use of guidelines, voluntary communication practices and tabletop exercises, and relevant outcomes thereof, and <u>requests</u> the Secretariat to provide appropriate support to interested Member States upon their request;
- 102. Encourages the continuation of the positive dialogue process between coastal and shipping States, which has improved mutual understanding, confidence building and enhanced communication in relation to the safe maritime transport of radioactive material, and takes note that other interested Member States are invited to join in this informal dialogue process and to implement, as appropriate, the best practices as contained in document INFCIRC/863, subject to confidentiality and security constraints;

8. The Safety of Spent Fuel and Radioactive Waste Management

- 103. Encourages Member States to plan, develop and implement national long-term programmes or approaches for the safe management of radioactive waste and spent fuel, containing outcomes which are achievable and timely to avoid undue burdens on future generations, and put mechanisms in place to ensure adequate resources are available, and to share experience and lessons learned in this regard;
- 104. Recalls the IAEA International Conference on the Safety of Radioactive Waste Management, Decommissioning, Environmental Protection and Remediation: Ensuring Safety and Enabling Sustainability, held in November 2023, encourages Member States to consider sustainability in spent fuel and radioactive waste management, when implementing the Agency's Safety Standards, and encourages the Secretariat to support Member States in accessing equipment and technology needed in this regard, upon request;
- 105. Encourages the Agency to continue its activities relating to the safety of predisposal management, near-surface, borehole and geological disposal of radioactive waste and, where appropriate, spent nuclear fuel, and <u>further encourages</u> the early engagement of regulatory bodies before the licensing process is launched;
- 106. Encourages the Agency to work on safety-related aspects of radioactive waste and spent fuel management, including for SMRs and advanced nuclear technologies;
- 107. Requests the Secretariat to foster exchange of information, experience and knowledge on safety-related aspects of storage of spent nuclear fuel and radioactive waste, emphasizing that safe disposal is the long-term solution for radioactive waste and spent fuel, if considered as waste;
- 108. Encourages Member States to explore ways and means to enhance cooperation in radioactive waste management;
- 109. Encourages Member States to plan for the management of all kinds of radioactive wastes arising from a nuclear or radiological emergency, including damaged nuclear 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;

Safety in Decommissioning, Uranium Mining and Processing, and Environmental Remediation

- 110. Encourages Member States to plan for the safe decommissioning of facilities, including during the facility design phase, and update as appropriate, and to put mechanisms in place to ensure human and financial resources are available so that decommissioning can start as soon as justified at a national level;
- 111. Encourages Member States to consider developing and adopting plans and measures for managing the end state of decommissioning;
- 112. Encourages Member States to benefit from the exchange of lessons learned and good practices from decommissioning and remediation activities, and to take them into account in their own activities, as appropriate;
- 113. Requests the Secretariat to continue supporting the exchange of information, experience and knowledge on safety-related aspects of decommissioning, including for novel types of facilities, and remediation of radioactively contaminated areas;

- 114. Requests the Secretariat to assist Member States, upon request, in developing plans for radiological protection of the environment during uranium mining and processing and for the safe decommissioning and remediation of facilities involving NORM residues, including the management of these residues, in particular the radiological characterization of materials and soil contaminated by NORM residues;
- 115. <u>Requests</u> the Secretariat to continue supporting efforts 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 <u>encourages</u> the Secretariat to consult relevant Member States in Africa, upon request, with a view to implementing similar initiatives; and <u>encourages</u> Member States, in a position to do so, to provide support to this end;
- 116. <u>Requests</u> the Agency to continue implementing activities through the International Working Forum on Regulatory Supervision of Legacy Sites and the Regulatory Forum for Safety of Uranium Production and NORM;

10. Capacity-building

- 117. Encourages Member States to develop national strategies for capacity-building in nuclear and radiation safety including, as applicable, through education and training, promoting gender equality and workforce diversity, human resource development, knowledge management, and knowledge networks and requests the Secretariat to provide support, upon request, and further encourages Member States to ensure that resources are made available for capacity building of this kind, including through the IAEA Marie Sklodowska-Curie Fellowship Programme;
- 118. <u>Encourages</u> Member States to further strengthen their national regulatory capabilities taking into account new and innovative technologies, <u>calls on</u> Member States in a position to do so to share, to the extent possible, their knowledge and experience to this end, and <u>reiterates</u> the role of the Agency in supporting Member States in accessing materials, equipment and technology needed in this regard, upon request;
- 119. <u>Encourages</u> interested Member States to utilize Regulatory Infrastructure Development Projects to support the establishment of national legislative and regulatory infrastructure and to build competencies in core regulatory activities for radiation safety and for security of radioactive material;
- 120. <u>Requests</u> the Secretariat to strengthen and expand its programme of education and training activities, focusing on building institutional, technical, managerial and leadership capabilities in Member States;
- 121. <u>Requests</u> the Secretariat to support Member States' efforts to identify and implement knowledge management including succession planning measures, and to continue efforts to acquire, update and preserve knowledge and institutional memory relating to nuclear safety, to mitigate lost experience;
- 122. <u>Requests</u> the Secretariat to support and coordinate regional and inter regional efforts for the sharing of knowledge, expertise and experience on safety-relevant issues and <u>encourages</u> Member States to participate in knowledge-sharing platforms such as the Global Nuclear Safety and Security Network (GNSSN) for efficient information sharing and effective cooperation;
- 123. <u>Welcomes</u> the International Conference on Nuclear Knowledge Management and Human Resources Development held in Vienna in July 2024 and <u>requests</u> the Secretariat to continue organizing events to address this topic;

- 124. <u>Encourages</u> Member States to utilize, as appropriate, the Agency's Systematic Approach to Training (SAT) and other relevant tools for the self-assessment of capacity building programmes at national and organizational level, and <u>further encourages</u> the Secretariat to continue developing the SAT;
- 125. Requests the Secretariat to support the knowledge management activities of Member States, upon request, and in particular the sustainability of competence and skills in their regulatory bodies;
- 126. <u>Requests</u> the Secretariat to continue supporting Small Island Developing States (SIDS), upon request, in building their technical capacity in nuclear and radiation safety, to enhance their safe use of nuclear science and technology for development;

11. Safe Management of Radioactive Sources

- 127. <u>Calls upon</u> 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;
- 128. <u>Calls upon</u> 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 <u>encourages</u> all Member States to develop arrangements, as practicable, to permit the return of disused sources to the supplier States or consider other options for management of sources wherever possible;
- 129. <u>Encourages</u> the Secretariat and Member States to strengthen national and multinational efforts to recover orphan sources and maintain control of disused sources, and <u>invites</u> Member States to establish radiation detection systems, including at international borders, as appropriate;
- 130. <u>Calls upon</u> all Member States to establish and maintain national registers of high-activity sealed radioactive sources;
- 131. <u>Encourages</u> Member States to make use of the Agency's services when dealing with issues related to the control or regaining of control over orphan sources, and <u>encourages</u> the Secretariat to advise Member States on how to formulate such assistance requests;
- 132. Requests the Secretariat to continue to foster information exchange on implementation of the Code of Conduct on the Safety and Security of Radioactive Sources, its Guidance on the Import and Export of Radioactive Sources and its Guidance on the Management of Disused Radioactive Sources, and <u>further encourages</u> the Secretariat to expedite the redesign and update of the Code platform to enhance exchange of information and experience among Member States;
- 133. <u>Requests</u> 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;
- 134. <u>Encourages</u> the Agency to support research efforts on the safety of nuclear and radiation technologies, including on options for safe, economically viable and technically feasible technologies, respecting each Member State's choice in nuclear technology;

12. Nuclear and Radiological Incident and Emergency Preparedness and Response

135. <u>Encourages</u> Member States to develop and strengthen national, bilateral, regional and international emergency preparedness and response mechanisms and arrangements, including protection strategies; 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 enhance transparency among licensees, authorities, the public and the international community; and to continue to improve bilateral, regional and international cooperation among national experts, competent authorities and regulators to that effect, including through the organization of joint trainings and exercises, as appropriate;

- 136. <u>Encourages</u> the Agency to organize, as appropriate, emergency exercises to test and analyse the effectiveness of emergency preparedness and response systems including in light of potential emergency events at nuclear facilities affected by armed conflicts;
- 137. <u>Requests</u> the Secretariat, in close cooperation and upon consultation with Member States and appropriate relevant international organizations, to continue to prioritize a programme of exercises and training emphasizing the importance of multilateral exercises, and <u>further encourages</u> Member States to consider volunteering to host such exercises, including those in the ConvEx series;
- 138. <u>Encourages</u> Member States to ensure that radiation protection strategies are developed, justified and optimized to enable effective protective actions and other response actions within their State as outlined in GSR Part 7, to be taken in a timely manner during a nuclear or radiological emergency; and <u>requests</u> the Secretariat to provide assistance to Member States in this regard, upon request;
- 139. Encourages Member States to make arrangements to ensure that protective actions in a nuclear or radiological emergency are justified and optimized by taking into account all potential hazards, including mental health and psycho-social impacts arising from such actions;
- 140. Requests the Secretariat to work with Member States to maintain and raise awareness of the Agency's arrangements for assessment, prognosis and communication, including arrangements for the timely sharing of relevant technical information, while making effective use of Member States' capabilities and, as necessary, to adapt and refine the technical capabilities and procedures of the Incident and Emergency Centre (IEC) to ensure effectiveness under nuclear and radiological emergencies;
- 141. <u>Requests</u> the Secretariat to support Member States, upon request, to develop, strengthen and build the capacity of national emergency preparedness and response mechanisms and arrangements;
- 142. <u>Requests</u> the Secretariat to consolidate the international experience of recovery from nuclear and radiological incidents, accidents and emergencies and review their impact with the purpose to support Member States, upon their request, in decision-making in relation to emergency planning and recovery;
- 143. <u>Encourages</u> 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, as outlined in GSR Part 7;
- 144. Encourages Member States and the Secretariat to continue utilizing the Agency's Unified System for Information Exchange (USIE) as a web portal for contact points of States Parties to the Early Notification Convention and the Assistance Convention, and of Member States to exchange urgent information during nuclear and radiological incidents and emergencies, and for officially nominated International Nuclear and Radiological Event Scale (INES) national officers to post information on events rated using INES, <u>further encourages</u> Member States to exchange information on nuclear and radiological incidents and emergencies, which includes national and transnational emergencies as defined in GSR Part 7 as being of actual or potential or perceived radiological significance for more than one State, and <u>encourages</u> Member States to consider sharing this information with the general public, as appropriate, including through the USIE mechanism;

- 145. <u>Requests</u> the Secretariat to work with Member States to improve the Agency's Response and Assistance Network (RANET), including by enabling RANET to facilitate the large-scale provision of equipment upon request, to ensure that, if and when requested, timely and effective assistance can be provided, <u>further requests</u> 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 <u>encourages</u> Member States to register and update, on a regular basis in RANET, national capabilities that could be made available to States requesting international assistance;
- 146. <u>Recalls</u> the 12th Meeting of the Representatives of Competent Authorities identified under the Early Notification Convention and the Assistance Convention, and <u>requests</u> the Secretariat, in consultation with Member States, to continue to facilitate information exchange between interested Member States and competent authorities;
- 147. <u>Requests</u> 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;
- 148. <u>Encourages</u> the Secretariat to continue utilizing and upgrading the performance of the International Radiation Monitoring Information System (IRMIS), in order to meet the needs of Member States in this regard, and <u>further encourages</u> Member States in a position to do so, to routinely provide data to the system;
- 149. <u>Encourages</u> Member States to consider providing information to the Emergency Preparedness and Response Information Management System (EPRIMS), and <u>encourages</u> the Secretariat to promote the benefits of EPRIMS to Member States;
- 150. <u>Requests</u> the Secretariat, in close consultation with Member States, to review the Agency's arrangements for reporting nuclear and radiological incidents, accidents and emergencies, with a view to identifying potential improvements in these arrangements, and <u>calls on</u> all Member States in a position to do so, to contribute to the effectiveness of these arrangements;
- 151. <u>Requests</u> the Secretariat, in coordination and consultation with Member States, to continue to strengthen cooperation with other relevant international organizations in the area of emergency preparedness and response, including through the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE);
- 152. <u>Encourages</u> the Secretariat, in coordination with the CSS and the Safety Standards Committees, to continue the review of GSR Part 7 and to consider its possible revision to address evolving challenges;

13. Implementation and Reporting

- 153. <u>Requests</u> the Secretariat to implement the actions called for in this resolution in a prioritized, efficient manner within available resources; and
- 154. Requests the Director General to report in detail at the sixty-ninth (2025) regular session of the General Conference on implementation of this resolution, and on other relevant developments in the intervening period.