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International Atomic Energy Agency

Committee Staff

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Agenda

1. Maintaining and Strengthening Emergency Preparedness and Response
2. Improving the Safe and Secure Transport of Radioactive Materials

Resolutions adopted by the Committee

Code	Topic	Vote (For-Against-Abstain)
IAEA/1/1	Maintaining and Strengthening Emergency Preparedness and Response	75 in favor, 3 against, 19 abstentions
IAEA/1/2	Maintaining and Strengthening Emergency Preparedness and Response	61 in favor, 6 against, 30 abstentions
IAEA/1/3	Maintaining and Strengthening Emergency Preparedness and Response	65 in favor, 14 against, 18 abstentions
IAEA/1/4	Maintaining and Strengthening Emergency Preparedness and Response	66 in favor, 9 against, 22 abstentions
IAEA/1/5	Maintaining and Strengthening Emergency Preparedness and Response	61 in favor, 11 against, 25 abstentions
IAEA/1/6	Maintaining and Strengthening Emergency Preparedness and Response	70 in favor, 6 against, 21 abstentions
IAEA/1/7	Maintaining and Strengthening Emergency Preparedness and Response	70 in favor, 9 against, 19 abstentions
IAEA/2/1	Improving the Safe and Secure Transport of Radioactive Materials	55 in favor, 18 against, 24 abstentions

Summary Report

The International Atomic Energy Agency held its annual session to consider the following agenda items:

1. Maintaining and Strengthening Emergency Preparedness and Response
2. Improving the Safe and Secure Transport of Radioactive Materials

The session was attended by representatives of 93 Member States and no Observers.

On Monday, the Committee adopted its agenda and began discussion on “Maintaining and Strengthening Emergency Preparedness and Response.” The dais received a total of 12 working papers on Tuesday, addressing training, information sharing, use of technologies and standardization of response management. The atmosphere in the committee was proactive, solution- and consensus-driven, and one of spirited and strong negotiation.

On Wednesday, this translated into successful combinations of various working groups. Delegates ultimately negotiated a total of 7 proposals. On Thursday, these proposals were accepted as draft resolutions, three of which had friendly amendments. All draft resolutions were adopted through a recorded vote. Thereafter, the committee moved to agenda item 2. The committee adopted one draft resolution to address radioactive waste, strengthening regulations, and improving channels of communication.

Code: IAEA/1/1
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Noting with concern that radioactivity from nuclear disasters is not confined to national borders,

Cognizant that nuclear-related disasters could arise at any moment without proper safeguards,

Emphasizing that the most prolific nuclear accidents resulting in massive releases of radioactive materials into the environment occurred at Chernobyl in 1986 and at Fukushima in 2011,

Reflecting on the lessons regarding Emergency Preparedness and Response (EPR) which may be learned from the aforementioned incidents,

Expressing concern that Member States' EPR mechanisms are not up to par with technological progress,

Reaffirming the importance of fast and effective communication in case of exposure to nuclear materials, as well as the importance of implementing a more adequate emergency response system,

Taking note of the need for improving nuclear emergency response and readiness, including the development of an app for warnings, in order to adequately notify and safeguard people, communities, and the environment in the event of nuclear accidents or emergencies,

Recognizing the landmark progress made towards promoting safe, secure and trustworthy Artificial Intelligence (AI) systems via General Assembly Resolution A/78/L.49,

Recalling the Technical Cooperation Fund (TCF) which funds international and regional cooperation projects proposed by Member States within the IAEA,

Determined to include the framework set out by the World Association of Nuclear Operators (WANO) which promotes the highest possible standard of nuclear reactor safety,

Fully aware that Least Developed Countries (LDCs) and Landlocked Developing Countries (LLDCs) have inherent challenges in developing nuclear technology compared to developed Member States,

Appreciating the Nucleus Separation Passive System (NSPS) technology by the nongovernmental organization Exlterra's, to reduce the measured radioactivity is implemented to areas with radioactive spillage or leaking,

Taking note of the Agency's strategic First Response to a Radiological Emergency conducting a four-day training procedure for first responders which guarantees they are adequately prepared to prevent or respond to radiological disasters as well as ensuring saving lives and administering first aid given the highest priority,

Enveloping the outreach of Operational Safety Review Team (OSART) missions, which will allow for the increased monitoring of nuclear power plants and supporting the compilation of information from OSART to be accessible through the International Radiation Monitoring Information System (IRIMIS),

Recalling further the framework provided by the Integrated Radiation Monitoring System (IMRS),

Firmly convinced that many mistakes of previous nuclear disasters could be avoided with information sharing through Advanced Communication Systems,

Reiterating that a lack of information sharing neither occurs or results in further casualties,

Recalling the IAEA's Tool for Radiation Alarm and Commodity Evaluation (TRACE) mobile application as an effort that can be expanded upon,

Recognizing the critical role of technology in enhancing capabilities for reconnaissance, search-and-rescue operations, and defense that emphasizes the imperative of investing in Unmanned Aerial Vehicles (UAVs) and Robotics,

Considering previous cooperative efforts between the Agency and the International Telecommunications Union (ITU) for the development of monitoring and broadcasting information,

Emphasizing the importance of nuclear safety and security regarding peaceful nuclear facilities and materials in all circumstances, including in armed conflict,

Recalling the previous Board of Governors and General Conference discussions under the agenda item Nuclear safety, security and safeguards, including resolutions GOV/2022/17, GOV/2022/58, and GOV/2022/71,

Recalling further the previous resolutions GC(67)/RES/16 adopted by the General Conference on 28 September 2023,

Reaffirming the Director General's statement on 30 May 2023 to the United Nations Security Council on five concrete principles for protecting the nuclear power plants in conflict zones,

Taking into account the absence of IAEA common principles on the matter of the nuclear power plants in conflict zones,

Taking note of the GC(67)/RES/7 and previous resolutions on measures to improve the security of nuclear and other radioactive materials,

Recalling the objectives of the Convention on Nuclear Safety (CNS), the *Convention on Early Notification of a Nuclear Accidents* (1986) and the *Convention of Assistance in Case of a Nuclear Accident or Radiological Emergency* (1986) and recognizing the need for effective implementation,

Emphasizing the need for safety assessments to ensure nuclear power plants are operating in accordance to the full safety standards of IAEA,

Recognizing existing safety assessments such as Technical Safety Review (TSR) services within the IAEA that aim to provide peer review services for nuclear power plants,

Desiring that established nuclear Member States endorse the General Safety Standards series, most notably GSR-Part-7: *Preparedness and Response for a Nuclear or Radiological Emergency*, as a standardized regulation set,

Emphasizing the urgent need for pre-nuclear Member States to ratify and implement international safety standards, including those such as in the aforementioned General Safety Requirement Part 7,

Seeking a consistent and accessible training program for nuclear workers to ensure that all workers are equipped and knowledgeable enough to effectively prepare and respond to nuclear emergencies,

Recognizing the great work of the Agency's Specific Safety Guides (SSGs), while *acknowledging* the lack of SSGs that address the transportation of radioactive material in the presence of active combat,

Reflecting on the most prominent- nuclear accidents resulting in massive releases of radioactive materials into the environment occurred in Chernobyl (1986) and in Fukushima (2011),

Calling attention to the technological revolutions that have created new patterns of education, training, and work impacting more than 3.4 billion members of the working society according to the International Labour Organization (ILO),

Expressing the importance of the IAEA's Radiological Society (RSNA), that enhances radiology capabilities within Member States, especially with the urgency of technical cooperation and capacity building that will facilitate the exchange of best practices and technological transfers,

Addressing international education and innovation limitations from the lack of access to atomic facilities and research institutions in the nuclear sector,

Emphasizing the promotion of non-profit organizations such as the European Nuclear Engineering Network Association (ENEN) for international educational cooperation,

Acknowledging that Convention Exercise (ConvEx) courses, designed to make essential skills regarding operational arrangements under the *Convention on Early Notification of a Nuclear Accident* (1986)

Noting with approval that Women in Nuclear (WiN) is working towards improving the conditions in the Nuclear Energy Agency (NEA) with 25% of women are among the overall nuclear sector workforce, only one-fifth of women hold STEM roles, and women only represent 18.3% of senior leadership,

Recognizing the risk of inconsistent technologies in Nuclear Power Plants (NPPs),

Bearing in mind the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, and international cooperation on the Convention on Early Notification of a Nuclear Accident (1986),

Recognizing that Member States affected by nuclear disasters are left without a sufficient sustainable emergency relief fund to combat negative radioactive fallout,

Recalling the importance of the IAEA Technical Cooperation funding program to support Member States undergoing nuclear development,

Recognizing the Chernobyl incident and the Chernobyl Recovery and Development Programme (CRDP) mitigation process for long-term social, economic, and environmental consequences in the aftermath,

Requesting the Secretariat to implement the framework called for in this resolution in a prioritized, efficient manner within available resources,

1. *Recommends* the formation of regional response teams with cooperation of the IAEA and following International Radiation Monitoring and Information System (IRMIS) guidelines to leverage shared capabilities for decisive action which:

a. Enhances regional interoperability by conducting joint training and drill sessions at times agreed upon by interested States;

b. Increases peace and stability by fostering enduring cooperation through strengthening communication during nuclear incidents;

2. *Encourages* IAEA Member States install radiation detection devices along consenting states borders to further strengthen the ability of all Member States to respond more effectively to nuclear emergencies while respecting the sovereignty of said States;

3. *Reaffirms* the *Occupational Radiation Protection Call for Action Promotion by recommending procedure* protecting workers in nuclear energy when raising concerns about plant safety which:

    a. Encourages Member States to conduct frequent safety drills in nuclear power plants;

    b. Ensures that all protocols are up to date;

    c. Provides the necessary knowledge and technical support to workers when required;

4. *Proposes* the creation of a new advanced communication system, the Nuclear Safety & Collaboration Hub (NSACH), to:

    a. Facilitate information-sharing and encryption capabilities between the EPR Information Management Systems (EPRIMS);

    b. Implement the Integrated Radiation Monitoring and Information Systems (IRMIS) to secure reliable communication channels while advising the allocation of funding towards the possession of satellite communications equipment;

    c. Recommend the development of mobile applications based on the existing TRACE infrastructure designed for real-time communication among emergency response teams;

5. *Urges* the collaboration between the IAEA and the International Telecommunications Union (ITU) to invest in satellite imagery and aerial drones for heightened situational awareness and data collection in emergencies and:

    a. Suggests the adoption of GIS software for thorough data analysis, mapping, and visualization of disaster-affected regions as acknowledged by the IAEA;

    b. Calls for the establishment of training programs to equip personnel with essential skills in remote sensing and GIS techniques;

6. *Encourages* Member States foster the development of predictive modeling and data analytics capabilities through developing predictive modeling algorithms to explore disaster simulations, urging the gathering and analysis of data concerning various emergency situations to inform decision-making processes, and recommends the establishment of data analytics frameworks to facilitate data-driven decision support during crises;

7. *Confirms* integrating AI and machine learning by encouraging the IAEA's Center for Science of Information and Purdue University to develop AI algorithms capable of analyzing large volumes of data to identify patterns and predict emergency scenarios, while also calling for the integration of machine learning techniques into emergency response systems to optimize resource allocation

and decision-making processes, and recommending training programs to familiarize personnel with the application of AI and machine learning in emergency response efforts;

8. *Encourages* partnership with the United Nations Office on Counterterrorism for the enhancement of cybersecurity measures for critical nuclear infrastructure, including networks and communication systems, to mitigate the risk of cyber threats directed towards that nuclear infrastructure during emergencies and recommending the development of protocols for incident response and recovery in the event of cyberattacks targeting emergency response systems;

9. *Asserts* that education on nuclear energy is crucial for accurate understanding, informed decision-making, and a sustainable energy future for a developing nuclear state that lacks nuclear power plants, but nuclear disasters can have severe consequences on public health and the environment, as seen in past incidents like Chernobyl and Fukushima Daiichi, emphasizing the need for safety measures;

10. *Calls upon* all Member States to unite and collaborate towards enhancing safety in the nuclear infrastructure sector through information sharing frameworks by striving for complete, open communication between Member States regarding the development of new nuclear power plants by:

    a. Affirming the existence of the current International Radiation Monitoring System;

    b. Calling for the expansion on the acceptance of the International Radiation Monitoring System among Member States and regional bodies;

    c. Requesting Member States take a proactive stance in using the IRMS and expanding how it can be used both for domestic and international radiation safety;

    d. Monitoring of Member States currently operating or developing nuclear power plants/programs, to be carried out by all Member States;

    e. Transparent cooperation among Member States to foster innovation while minimizing associated risks;

    f. Joining OSART operations, and having them inspect the NPPs at least once a year in addition to communally advocating for technology sharing;

11. *Encourages* Member States to implement the IAEA’s first responder's radiological disaster training while improving procedures to ensure a unified response to radiological disaster which:

    a. Implements procedures for first responders interoperability between different Member States reducing the time between the incident and containment;

    b. Emphasizes the importance of Member States undergoing a formal review to ensure the Member States Emergency Preparedness and Response Systems are up to date through IAEA standardized procedure of a 5-day review as well as a follow-up mission;

12. *Suggests* that Member States allocate funding towards the possession of satellite communications equipment, mobile applications for real-time communication among emergency response teams;

13. *Proposes* the establishment of the Nuclear Safety & Collaboration Hub (NSACH) to facilitate secure information-sharing and strengthen encryption across the Emergency Preparedness and Response Information Management Systems (EPRIMS) and the Integrated Radiation Monitoring and Information Systems (IRMIS), ensuring reliable communication channels between them;

14. *Endorses* collaboration with the ITU to allocate resources for Remote Sensing and Geographic Information Systems (GIS) to utilize data sourced from GIS hardware such as near-Earth satellites and atmospheric drones and incorporating this information into IAEA training programs for equipment usage;

15. *Emphasizes* investments in updated UAVs and Robotics, henceforth urging the allocation of resources for obtaining UAVs and robotic systems equipped with sensors and cameras for reconnaissance and search-and-rescue operations, providing real-time data and imagery to emergency responders, as well as making recommendations for the development of training programs to ensure proficient operation of these systems by military personnel and emergency responders;

16. *Endorses* the Director General's "five principles" regarding nuclear power plants in conflict zones which consists of:

    a. Calling upon all Parties in conflict zones to refrain from attacks of any kind from or against the nuclear power plant, particularly the reactors, spent fuel storage, other critical infrastructure, or personnel;

    b. Insisting that the nuclear power plants should not be used as storage or a base for weapons or military personnel that could be used for an attack from the nuclear power plant;

    c. Urging all Parties to ensure that off-site power to the nuclear power plant remains available and secure at all times;

    d. Reminding that all structures, systems and components essential to the safe and secure operation of nuclear power plant should be protected from attacks or acts of sabotage, and;

    e. Requesting all Parties to respect and desist any actions that undermines these principles;

17. *Reiterates its call* for the insurance of the safety and security of the Nuclear power plants in conflict zones that includes:

    a. Calling for urgent withdrawal of all unauthorized personnel from nuclear power plants in conflict zones;

    b. Calling for nuclear power plants in conflict zones to be immediately returned to the full control of the competent authorities consistent with IAEA standards to ensure its safe and secure operation and in order for the Agency to conduct safe, efficient, and effective safeguards implementation, in accordance with State comprehensive safeguards agreement and additional protocol;

    c. Requesting for the Agency experts to be provided with unrestricted and timely access to and from all relevant locations at and around Nuclear power plants in conflict zones, and;

d. Encouraging Member States to offer in-kind support to the IAEA comprehensive programme of technical support and assistance, including through the provision of necessary nuclear safety and security equipment;

18. *Establishes* the Agency's "Eleven Principles on the Matter of the Nuclear Power Plants in the Conflict Zone" which consist of:

    a. Desisting from attacking of any kinds from or against the nuclear power plants;

    b. Maintaining the physical integrity of nuclear power plants and relevant facilities, in particular the reactors, fuel ponds, radioactive waste storages;

    c. Abstaining from storing any weapons or basing military personnel in the nuclear power plants that could be used for an attack from the nuclear power plants;

    d. Safeguarding all safety and security systems and equipment of the nuclear power plants must be fully functional at all times;

    e. Ensuring the safety of the operating staff of the nuclear power plants for their abilities to fulfill their safety and security duties and to have the capacity to make decisions free of undue pressure;

    f. Assuring the uninterrupted logistical supply chains and transportation to and from the nuclear power plants;

    g. Guaranteeing the availability and readiness of the off-site power to the nuclear power plants at all times;

    h. Sustaining the effective on-site and off-site radiation monitoring systems, and emergency preparedness and response measures;

    i. Maintaining reliable communication between the Agency, the operating staff of the nuclear power plants, the Member State's regulator, and others;

    j. Supporting the "IAEA Support and Assistance Mission" to nuclear power plants without delay or hindrance, and;

    k. Refraining from any actions that undermines these principles;

19. *Encourages* Member States to adhere to and observe the Agency's "Eleven Principles on the Matter of the Nuclear Power Plants in the Conflict Zone";

20. *Urges* the Agency to support a reporting security network modeled after the *Incident Reporting System,* allowing States to share information related to implementing controls for Nuclear Installation;

21. *Guarantees* the effectiveness of implementation and training assessments by regular mandatory reports by the IAEA Secretariat;

22. *Requests* existing safety assessment programs, such as the TSRs, to be evaluated by the IAEA secretariat and rebuilt into universal safety assessments;

23. *Urges* the use of updated safety assessments conducted by IAEA, which will ensure the consistent safety standards within Nuclear Power Plants, proposing the:

    a. Proper disposal of all radioactive and nuclear materials;

    b. Universal training for management of nuclear materials;

    c. Collaboration of Member States on the 'safe' collection, management, and disposal of nuclear materials;

    d. Unannounced annual assessments modeled after the peer review TSRs;

24. *Acknowledges* that a conversion towards an energy infrastructure powered by nuclear fusible and fissile materials inherits a large amount of stigmatism and the implication of an increased security threat, and accordingly:

    a. Encourages that Member States who already have access to nuclear energy present and endorse GSR-Part-7 as a commendable foundation upon which developing nuclear Member States can found their nuclear policies and further;

    b. Affirms that, with the adoption of a globally standardized framework for nuclear developing Member States, especially one which is as established and perceivably 'safe' as those in GSR-Part-7, an active de-stigmatization and de-securitization of nuclear energy acquirement can occur which;

    c. Emphasizes its hope that a greater rate of transfer of technology and increased number of Member States which have access to clean, and 'safe', nuclear energy can be achieved;

25. *Endorses* Member States to strengthen their national regulatory frameworks to align with international safety standards;

26. *Encourages* the expansion of the pre-existing standardized range of training materials

    which can be drawn upon to consistently train nuclear workers in all Member States which:

    a. Seeks that standardized training system can be used to supplement and enhance other global frameworks proposed within this resolution to ensure that all future development of, and participation within, such international systems can be founded from a consistently trained workforce, and;

    b. Declares accordingly that such a training system can further utilize a global network of experts and instructors within nuclear established Member States which can be delegated to developing nuclear Member States to ensure consistent training, though;

    c. Draws attention to the fact that a globally standardized training system must consider the diverse needs and backgrounds of participants within such a system, and recommends such a system be flexible to accommodate all;

27. *Requests* the Secretariat to implement the framework called for in this resolution in a prioritized, efficient manner within available resources,

28. *Suggests* Member States to conduct public awareness programs produced by the Secretariat to inform the populace of nuclear standards and equip them for rapid response during radioactive emergencies through dissemination of physical and digital educational material, in-person and online workshops and training, mass media, public forums, social media campaigns, United Nations mobile apps, in-person and virtual simulations, and school curriculum integration;

29. *Urges* Member States to participate in increased cooperation and resource-sharing, particularly with state-of-the-art nuclear monitoring equipment and advanced precision maintenance tools, assuring that each Member State has the safest and most modernized instruments to limit calamities by:

    a. Establishing a repository managed by the Agency that showcases new developments in nuclear technology;

    b. Developing a program to allow Member States to share their latest nuclear technology and hold educational training on its usage in a host Member State upon request;

30. *Calls* upon Member States to collaborate with the IAEA's Radiological Society RSNA to advance radiology capacities, which works on the regional technical cooperation and capacity building through sharing best practices and technological transfers to shield and store radioactive materials;

31. *Requires* the application of education and training programs tailored to Member States by:

    a. Providing children, young experienced professionals, and senior citizens with dynamic training on how to prepare and proceed in case of nuclear emergence;

    b. Holding annual trainings for safe handling practices of nuclear and radioactive medical supplies directed towards healthcare providers, assistance staff, and administrators;

    c. Creating specialized training for Member States according to their geographic location, availability of resources, and involvement in the field;

    d. Offering the use of technologies such as Artificial Intelligence (AI) and Virtual Reality (VR) to provide the resources necessary for implementation in the future with a low cost, easy transport, and inclusion of languages through the Nuclear Security Training and Demonstration Center (NSTDC);

32. *Emphasizes* international education partnerships and the share of nuclear and radiological technologies by promoting partnerships while hosting international students in relevant fields at research institutions and plants for in-field experience to bring back to their country of origin, much like the ENEN and other bilateral agreements, in addition to the construction of nuclear cycle facilities complying to both IAEA safety standards and the technology prioritized in the states involved;

33. *Fully supports* the Women in Nuclear (WiN) to increase global equalities, recognize the growing numbers of women in the nuclear industry, and to create access for women to create a meaningful impact in the nuclear sector;

34. *Advocates* for the expansion of a promising and clear understanding of efficient advancement through measures such as:

a. Forming public awareness campaigns that utilize various media platforms and community events to educate individuals about the benefits and risks of nuclear energy;

b. Providing educational programs, such as lectures, workshops, and hands-on activities, in schools, universities, and community centers to inform people about nuclear energy;

c. Offering students visits to nuclear power plants and research centers to offer an up-close look at the production and use of nuclear energy, helping to allay concerns and misconceptions about the technology;

35. *Encourages* Member States to create a third-party anonymous reporting system for civil actors to communicate with national and local officials who can monitor and prevent nuclear crises;

36. *Encourages* the Nuclear Security Training and Demonstration Center (NSTDC), which offers courses covering various aspects such as physical protection of nuclear and radioactive material, detection and response to criminal acts, cyber security, nuclear forensics, and preparation for major public events implementing nuclear security measures involving nuclear materials transportation to increase their capacities in order to:

    a. Increase the number of trainees to 2,000 per year from 1,000 per year;

    b. Further prepare them for their work in radioactive and nuclear environments;

37. *Reaffirms* the use of the mobile application TRACE, which enables customs officers to focus on transnational movement of radioactive material;

38. *Integrates* TRACE into the International Radiation Monitoring Information System (IRMIS) to serve as an international database to enhance transparency and information exchange between all Member States;

39. *Suggests* the creation and utilization of a new AI program in cooperation with the ITU to be implemented into early warning systems to detect anomalies either in proximity to nuclear facilities or related to equipment inside them;

40. *Encourages* Member States' national regulatory bodies to implement early warning and notification system modeling ECURIE to allow for direct reporting of emergencies involving nuclear material to the IAEA;

41. *Proposes* the creation of a panel of international experts in the nuclear energy sector which meets biannually to identify specific modern reactor technologies such as fast reactor and thorium reactors that Member States may choose to integrate into their early warning systems by assessing the quality and status of each state's systems, identifying technologies which are both affordable for the state and improve on their existing systems, and recommend plans for how these Member States may acquire them;

42. *Encourages* the creation and worldwide implementation of an immediate broadcasting system using cellular network as a tool for early warning mechanisms which:

    a. Allows fast and accurate information to the immediate vicinity;

    b. Encourages the immediate vicinity to take appropriate measures, including evacuation;

c. Includes specific locations where the population should not go, ‘hot zones’ where the risk of exposure to nuclear materials may be more my severe than others;

43. *Requests* the Secretariat, in close consultation with the Center for Science of Information and Purdue University and Member States, to promote research by Member States on how they may begin to implement AI into their early warning systems and identify the benefits and challenges of artificial intelligence deployed in early warning systems;

44. *Promotes* the development of more resilient atomic infrastructure to account for the risks to structural integrity and stability of infrastructure through the IAEA Action Plan on Nuclear Safety by emphasizing on collaboration with nations possessing knowledge of especially challenging geographical zones;

45. *Encourages* the IAEA to implement reactor monitoring and automatic switch-off systems modeling the *SCRAM* system, implementing pressure sensors inside pressurized water-reactors to alert facility workers to changes indicating a potential meltdown and allowing for an expedited reactor shutdown response;

46. *Suggests* that the Agency create a transponder-like system which transmits data via the use of a global positioning system (GPS) which, when paired with a verifying satellite imagery, could be a source of data to enhance the already existing apps to ensure increased safety across the globe and make informed decisions to protect the public in case of radioactive incident;

47. *Emphasizes* the implementation of monitoring systems in nuclear fuel cycle facilities and their surrounding regions through the advancement of:

    a. Domestic Response Teams trained in radiological emergencies for response in the case of acute emergencies in nuclear fuel cycle facilities, complimented with on-line monitoring;

    b. International cooperation on the Convention on Early Notification of a Nuclear Accident (1986);

48. *Recommends* that a division in partnership with the WHO and the IAEA Secretariat must be established, promoting world nuclear ‘safety’ and assisting the most vulnerable to provide first aid to victims;

49. *Urges* all Member States to allocate increased financial assistance to promote programs enabling Member States to learn contemporary safety training and crisis management tactics which,

    a. Encourages training within technical cooperation initiatives, regulatory review services, emergency preparedness and response training courses;

    b. Further proclaims specialized training courses in radiation safety to ensure that all Member States are prepared for nuclear disaster;

50. *Suggests* that Member States focus on financial incentives for the development of unexplored nuclear-related devices to assemble the highest quality technology for mitigating accidents by:

    a. Granting incentives to private sector actors for the creation of new and improved tools that emphasize safety and security;

b. Forming a research and development center within the IAEA, utilizing Member States funds and resources for joint projects;

c. Providing funds for the construction and maintenance of infrastructure and warning systems to ensure all in-use technology and infrastructure are updated and accessible to all Member States;

d. Determining the appropriate amount of funds allocated to affected Member States by considering disaster size, affected populations & ecosystems, and safety protocols that would need to be implemented;

51. *Advises* for the introduction of NPP emergency preparedness technology through:

    a. Further advancing on technology around inert gas ignition within units and plants under construction, done through double-containment and an after-heat removal system complimented with the introduction of inert gasses into the control environment;

    b. The implementation of comprehensive guidelines that emphasize the commitments and obligations of Member States implementing atomic energy targets plants for the first time, to be implemented through the Milestones Approach:

        i. With countries analyzing their overall energy consumption to determine whether nuclear energy is the most feasible option;

        ii. The development of supportive frameworks, institutions, and infrastructure that produce a transparent and responsible bidding process;

        iii. With the construction of nuclear power plants;

52. *Endorses* the WANO to implement and promote IAEA Standards regarding the safety standards of both in progress and complete nuclear reactors, and more widely introduce and fund the six-step roadmap set out through the New Unit Assistance Working Group (NUAWG);

53. *Appeals to* Member States to participate in resource sharing to ensure readily accessible and available disaster relief for all affected areas by nuclear disasters as well as funds to aid those affected by:

    a. Ensuring the funds and resources needed will be provided to all affected Member States and communities;

    b. Enabling the recuperation process for Member States affected by nuclear disasters as well as those displaced by them;

    c. Navigating through the economic recovery, environment, displacement, and relocation of communities affected with programs similar to CRDP;

54. *Encourages* priority funding to be allocated to LDCs and LLDCs for EPR systems, which will fund:

    a. The construction of nuclear reactors for use of power, including technology on early-warning systems to LDCs;

    b. Education and training for minorities and underrepresented groups in LDCs, to ensure proper safety protocols are adhered to worldwide and for the safety of all people;

55. *Considers* the extension of current budget allocation by the IAEA Board of Governors beyond those specified by the current budget appropriations extending it to manage and oversee the use of funds in the emergency relief, education, training, infrastructure, and warning systems modeled after the *Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency* with the shared goal of speedy and reliable support and assistance, by:

    a. Establishing a new extrabudgetary fund section, under that of the TCF, from voluntary private donors to contribute towards empowerment and technical programs as well as scholarships for those studying nuclear-oriented careers;

    b. Setting up a program for Member States who contribute to IAEA endeavors to have a percentage of donations go into the extrabudgetary fund;

56. *Draws attention to* the importance of transparency of where these funds will be allocated to all Member States;

57. *Supports* the Secretariat implementing the actions called for in this resolution in a prioritized, efficient manner within available resources;

58. *Urges* the Director General to report in detail on the implementation of this resolution, and on other relevant developments in the intervening period;

59. *Welcomes* the Secretariat to prepare a detailed report of the developments of this resolution for the next session of the IAEA's General Conference in 2025.

Code: IAEA/1/2
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Guided by the responsibilities set out for each Member State under the *Convention on Early Notification of a Nuclear Accident and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency* (1986),

Recalling Article 5(a)(ii) of the Assistance Convention, the function of the IAEA is to collect and disseminate to State Parties and Member States information concerning methodologies, techniques, and results of research relating to response to nuclear or radiological emergencies,

Welcoming innovative solutions and programs to enhance existing and developing information-sharing systems, education and training programs,

Affirming a commitment to recognizing underrepresented persons and protecting vulnerable communities in the development of standards for nuclear emergency preparedness and response,

Fully aware that armed conflicts and international security concerns may cause nuclear emergencies, and further complicate the monitoring of nuclear safety and response,

Expressing its utmost concern for nuclear power plants in conflict zones such as the Zaporizhia Nuclear Power Plant and its threats to the Nuclear Safety and Security of countries in the region,

Recognizing the 1947 Geneva Convention on Humanitarian Conduct in War and its Protocols prohibiting the targeting of civilian infrastructure*,*

Taking into account, Article 3 of the International Atomic Energy Agency (IAEA) Statutewhich calls for the exchange of scientific and technical information on peaceful uses of atomic energy, as well as Article 1 of the *Charter of the United Nations* related to maintaining international peace and security,

Having considered avenues in which existing safeguards systems can be improved upon, such as the universal adoption of Additional Protocol, as outlined in Article III of the 1968 *Treaty on Nuclear Non-Proliferation*, expanding the ability of the IAEA to monitor developing and existing nuclear programs in signatory states,

Acknowledging transparency as a core value of the IAEA, as well as the monitoring regime being a crucial component of the IAEA,

Further expressing the importance of existing international monitoring systems, instituted by the Comprehensive Test-Ban Treaty (CTBT), which includes 321 monitoring stations and 16 radionuclide laboratories that help to identify radioactive substances,

Noting with satisfaction the results of the nuclear security agencies and programs of Member States such as the Moroccan Agency for Nuclear and Radiological Safety and Security (AMSSNuR), the Negev and Soreq Research Center in Israel, TENMAK in Israel, Marcoule in France, and others,

Emphasizing the importance of capacity building and training programs to enhance the skills and competencies of emergency response personnel,

Aware of the advancements in technology that facilitate the prediction and management of nuclear risks, as well as the growing cyber threat to nuclear safety, and the growing importance of Artificial Intelligence,

Emphasizing the importance of the 2030 Agenda and the risks nuclear incidents may pose to attaining Sustainable Development Goal (SDG) 3 on “Good Health and Wellbeing”, SDG 15 on “Life on Land”, and SDG 14 on “Life Below Water,”

Acknowledging the viability and potential of nuclear energy towards a more sustainable future following SDG 16 on “Peaceful and Inclusive Societies” for sustainable development,

Stressing the importance of international cooperation in matters of nuclear expertise, international education, leadership in the peaceful applications of nuclear science and technology, and cooperation in Emergency Preparedness and Response (EPR), to achieve SDG 7 on “Affordable and Clean Energy” and SDG 17 on “Partnerships for the Goals,”

Reaffirming support for these sustainable goals and the necessity to commit to sustainable development of nuclear programs in light of the dangers posed by climate change to vulnerable communities,

Declaring safeguard verifications using the Seven Indispensable Pillars previously established by the Security Council on 30 May 2023 in an IAEA Director General Statement to the United Nations Security Council to prove effective on and off-site monitoring of potential radiation exposures in combat areas, and nuclear facilities,

Expressing deep concern over the lack of foresight and preparation for environmental cataclysmic or unforeseeable events that impact lives in an instant,

Recognizing the need for Member States who wish to implement an emergency preparedness plan to have the framework required for their programs to be successful on a national level,

Further noting the imperativeness of IAEA involvement through the International School of Nuclear Law (ISNL) to assure Member States uphold and adhere to their utmost standards, and/or improve their nuclear infrastructure,

1. *Suggests* the creation of the Nuclear Conflict Mitigating Task Force (NuCoMT) under the Nuclear Security Plan (NSP) with the invitation and consent of Member States, which would deal with early warning, monitoring, assessment, prevention, and response to nuclear and radiological emergencies in situations of ongoing or threat of armed conflict and is:

    a. Executed by professionally trained personnel and equipment provided by the IAEA and Member States voluntarily in case of an arising emergency in the proximity of nuclear facilities;

    b. Tasked with assessing the risk of nuclear emergencies, utilizing cutting-edge artificial intelligence and machine learning to enhance prediction and management of nuclear risks, drafting a report on the result of such an assessment, including suggestions for measures to mitigate risks as a result of armed conflict, within 90 days, and updating the assessment every 6 months;

c. Concerned with developing tools for risk assessment, thereby aiding in the formulation of effective response strategies, refined evacuation plans, resource allocation, and public information strategies;

d. Encouraging all parties in a conflict to participate in the monitoring of nuclear facilities, execute the recommendation of NuComt, and actively provide information to the designated task force;

e. Tasked with coordinating the first response to nuclear emergencies in conflict zones;

f. Promoting cooperation between the NSP, the United Nations Office of Counter-Terrorism (UNOCT), the United Nations Peacekeeping Operations (UNPKO), and the United Nations Security Council (UNSC) through sharing capabilities and information regarding knowledge on nuclear issues in conflict zones;

2. *Emphasizes* the general importance to the UNSC of establishing non-combative zones in the surrounding area of nuclear facilities for maximum military restraint and strict observance of nuclear facilities within conflict zones such as Zaporizhia Nuclear Power Plants, while further requesting Member States to recognize the importance of monitoring the current Nuclear Power Plants (NPP) in conflict zones which ensures safety assurance according to SDG Partnership for the Goals (17);

3. *Encourages* all Member States to participate in an international conference on the expansion of the existing International Radiation Monitoring Information System (IRMIS) and the Response and Assistance Network (RANET) to:

    a. Develop a strategy and roadmap for the addition of new Member States for IRMIS and RANET;

    b. Create more accommodating criteria for Member States that are not yet involved in the IRMIS or RANET network;

    c. Promote the International Collaboration and Knowledge Exchange Program (ICK-EP) to facilitate the sharing of expertise, best practices, and lessons learned among nations, strengthening the global network of nuclear safety professions;

4. *Urges* Member States to collaborate on the further development of the RANET, which will:

    a. Establish a robust and interconnected framework for rapid deployment and assistance during nuclear emergencies;

    b. Implement a centralized database of all resources, expertise, and equipment to ensure continuous exchange of information and operational readiness among all member states, with communication channels that remain open even if local infrastructure is compromised;

    c. Restrict data sharing to Member States to safeguard sensitive information and promote mutual trust and collaboration;

5. *Recommends* the development of a system for rapid information exchange during emergencies, utilizing technologies such as satellite communication systems that are designed to remain operational even when local infrastructure is compromised;

6. *Decides* accordingly to create the Standard Measures for Atomic and Radioactive Technology (SMART) whereby all Member States shall create, and strengthen where already existing, national authorities responsible for the monitoring and regulating of nuclear energy within their national borders:

    a. Which will receive, when requested, technical and financial support through the Peaceful Uses Initiatives (PUI) in the creation of these national authorities to ensure that IAEA and other international protocols can be ratified in all Member States;

    b. To ensure that all radioactive and nuclear activities within its borders share their activities through the Integrated Radiation Monitoring and Information Systems (IRMIS), EPR Information Management System (EPRIM) and the Response and Assistance Network (RANET);

    c. Starting with a pilot in Comoros which should start by the last quarter of 2025, after which it shall be evaluated and adjusted accordingly before rolling out to other Member States starting in 2026;

    d. And Emphasizes the need to ensure that all Member States have equal accessibility to the notification system being proposed;

7. *Encourages* further emphasis on international communication and data sharing with Member States to strengthen Emergency Preparedness and Response (EPR) and recommends the creation of an international advisory committee for EPR to guide all Member States on ongoing nuclear programs and future projects, the International Emergency Preparedness Advisory Committee (IEPAC) in which:

    a. There would be equal representation with all Member States, with 2 trained delegates from each nation serving as representatives;

    b. Each delegate would complete a security training period of one year;

    c. An advisory committee would provide a guideline on nuclear projects pertaining to technological standards, safety measures, and education training;

    d. IEPAC’s guideline would serve as a standard for nuclear projects that are ongoing and developing, in order to maintain and strengthen Emergency Preparedness and Response Efforts;

8. *Encourages* public officers to engage in campaigns to spread awareness among their citizens on emergency preparedness and response to nuclear and radiological emergencies by:

    a. By developing workshops and exercises in line with EPR- Public Communications 2012, in respect of each Member State's realty and needs;

    b. Using new technologies such as virtual reality simulation to approach as much as possible the reality of such emergencies;

    c. Collaborating with local NGOs to broaden the scale of impact;

9. *Encourages* the creation of a well-trained team of IAEA first-response intervention officers to address all nuclear incidents, involving:

a. The development of a standardized training program agreed upon by all willing members;

b. Active cooperation with the NSP and NuCoMT;

c. Encouraging Member States to employ a set minimum of first response officers, paid for by Member States;

d. A minimum requirement for all response officers to receive 100 hours of formal training in radiation intervention before certification;

10. *Urges* all Member States to contribute to funding for the Technical Cooperation Program, nuclear knowledge, development and management;

11. *Recommends* the creation of a NUKE “Nuclear University for Knowledge and Expertise” building upon the World Nuclear University (WNU) partnership by:

    a. Creating a permanent international institution operating as a research center that would bring experts and personnel of nuclear facilities together;

    b. Offering to students all over the world the possibility to follow academic parcours in nuclear engineering focusing on EPR;

    c. Providing personnel and expertise to the Division of Nuclear Security under the IAEA, towards coordinating crises at a global level, while conducting research into the possibility of future integration;

    d. The contribution to the budget of the NUKE would be proportional to the nuclear energy production of the Member State, in the case of a Member State with no nuclear production, this Member State will not be required to put money into this budget;

12. *Recommend*s the adoption and integration of advanced technological and innovative tools, including artificial intelligence, within educational programs to enhance emergency preparedness and response initiatives by:

    a. Implementing automatic evaluation systems that accurately assess the readiness and effectiveness of emergency response strategies, facilitated by artificial intelligence;

    b. Utilizing educational content generators powered by artificial intelligence to create dynamic and adaptive learning materials tailored to the specific needs of emergency preparedness and response training;

    c. Allocating the funding through the United Nations Emergency Preparedness and Innovation Fund (UNEPIF) to support the development and implementation of these technological tools, ensuring that:

        i. Sufficient resources are dedicated to the research, development, and deployment of artificial intelligence applications within the framework of emergency preparedness and response education;

        ii. Financial assistance is voluntarily provided to Member States for the adoption of these technologies, with a focus on enhancing their capabilities to effectively

utilize artificial intelligence in emergency preparedness and response initiatives, thereby ensuring global resilience and readiness;

13. *Suggests* the creation of the Controlled Information Access for Nuclear Youth Education which would consist of:

    a. A panel that allows youths that are a part of the IAEA School on Nuclear and Radiological Leader for Safety to get expert knowledge on how to prevent and prepare for nuclear emergencies and incidents;

    b. Implementation by UNESCO due to their emphasis on education and funded by Plan International as their mission is to provide strategies. Information, and techniques used in the modern era and radiological safety;

    c. *Calls* upon signatory Member States of the Treaty on the Nonproliferation Of Nuclear Weapons and The Comprehensive Nuclear Test Ban Treaty to maintain their nuclear program commitments, suggested in the NPT and CTBT, through cooperation with IAEA Member States to regularly monitor existing programs and institutions to facilitate evidence-based evaluation and strengthen information-sharing systems so that:

    d. Member States with developing and existing nuclear programs pursue and strengthen Comprehensive Safeguards Agreement (CSA) outlined in conjunction with their programs to increase transparency and bolster existing information-sharing systems;

    e. Existing Comprehensive Safeguards Agreements are applied and maintained to aid sustainable development as per SDG 16 in support of existing and developing nuclear programs;

    f. Member States commit to strengthening of existing measures through the adoption of Additional Protocols, such as cooperation with IAEA monitoring officials, or the increasing of intentional training and education towards sustainable nuclear development in compliance with regional standards;

    g. Nuclear materials are properly used in the peaceful agreement of treaty commitments;

14. *Recommends* the expansion of IMS data to additional benefits that can help save lives and expand scientific knowledge on a rapidly increasing array of issues posed by climate change to vulnerable communities and the tracking of radioactive releases from nuclear incidents;

15. *Draws* attention to the seven indispensable pillars for ensuring nuclear safety and security during an armed conflict to:

    a. Guarantee secure and undisrupted logistical supply chains to and from nuclear facilities;

    b. Safeguard operating staff to make sure they can safely fulfill their duties;

    c. Ensure that nuclear facilities are operating at the highest capacity by securing communication, power supply, and physical infrastructure;

16. *Recommends* Member States implement emergency preparedness plans that empower their citizens to prevail and become resilient in the face of catastrophe through the creation of a committee to determine if respective emergency preparedness plans are in effect in the

respective Member State to improve and expand already existing plans, or develop new ones, which will:

a. Explore thematic vulnerabilities of nuclear facilities, hospitals, elder care facilities, schools, and places of employment;

b. Review of areas of susceptibility, such as government offices, nuclear facilities, and locations with prominent populations of elder individuals, women, and children;

c. Establish areas of importance which require various levels of assistance, adjusting programs in areas without emergency preparedness programs in existence;

d. Create a Task Force to oversee anticipated expenditures, budget development, financial resource support;

e. Directly includes Member State citizen liaison involvement to provide community perspectives, guidance, and community preparation assistance for drills, programs and in actual emergencies;

17. *Encourages* the creation of the Radiological Emergency Mission (REM) whose goal involves preventative measures for radiological disasters through educational programs and to support the recovery of disasters that are not preventable by:

    a. Creating a Radiological Board that is represented by global regions of Member States composed of the various global regions that consist of 13 seats for Western European States, 13 seats for Eastern European States, 13 seats for Asian Pacific, 10 seats for African States 8 Eastern Asian and 8 seats for Latin American and Caribbean States that vote on areas of further research of mitigating or eliminating circumstances that might produce Radiological emergencies and technologies that can reduce the half-life of dangerous radiological elements;

    b. Sending representatives from the NUKE school to train and teach the public within the regional blocks of the voting board to better understand how to prevent and prepare for radiological disasters by:

        i. Running workshops for first responders, caregivers, and teachers to better understand how to respond to radiological disasters based on their needs and duties to their communities;

        ii. Working alongside the IAEA's Technical Operation Programme to review response plans of communities in the event of a radiological emergency;

    c. Establishing radiological care centers in the regional blocks of the voting board to care for those who are affected by radiation physically support those affected by radiological disasters and act as an advisory body to the affected country to expedite the return of citizens to the affected zones.

Code: IAEA/1/3
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Recognizing the strategic significance of the Middle East region, characterized by its diverse geopolitical landscapes and the increasing use of nuclear technology for peaceful purposes, which calls for a heightened level of emergency preparedness,

Convinced that a united Middle East, working in close coordination under the supervision of the International Atomic Energy Agency (IAEA), can most effectively leverage shared resources, knowledge, and capacities to establish a comprehensive, integrated, and efficient emergency preparedness and response framework,

Acknowledging the lessons learned from prior nuclear and radiological incidents and the increased reliance on nuclear technology, as well as the number of nuclear power plants operating which have a high-risk factor due to limited development as determined by the IAEA Bulletin, Vol. 26, No. 1,

Concerned with the potential and existing damage that foreign forces such as the Islamic State of Iraq and the Levant (ISIS) and other malicious non-state actors cause to nuclear research and development facilities, as well as the industries and civilians in the Middle East, where radioactive material has been improperly stored or destroyed,

Fully aware of the need to make the cleanup of radioactive material a priority and emphasize support of the IAEA technical cooperation program and the Network on Environmental Remediation,

Mindful that immediate notification of emergencies is crucial for the safety and security of Member States,

Noting the United Nations Sustainable Development Goals: affordable and clean energy (7), sustainable cities and communities (11), peace, justice and strong institutions (16),

Recalling the IAEA's Safety Standards and the Framework for Emergency Preparedness and Response, which provides guidance for protecting people and the environment from the harmful effects of ionizing radiation in nuclear and radiological emergencies,

Recognizing the need to enhance the performance and safety of life of existing and planned reactor fleets according to the IAEA's 67th General Conference,

Reminding the global community that there is no cohesive standard for reporting and categorizing radioactive material,

Fully believing in the importance of maintaining and utilizing existing systems such as the Central Emergency Response Fund, the Emergency Preparedness Review, and the IAEA's Unified System for Information Exchange to provide timely information to participating Member States,

Acknowledging that efficient sharing of information and technology is necessary for the insurance of emergency prevention and preparedness,

Confident about the benefits of creating and extending collaborative frameworks, and platforms that will provide a common ground for military and civilian officials to collaborate on nuclear safety and emergency preparedness,

Firmly convinced joint exercises between Member States of the IAEA, shared protocols, and mutual agreements are essential to emergency preparedness,

Having approved of the innovation and research taking place in the IAEA's Platform on Small Model Reactors (SMRs) and its emphasis on access to environmentally diverse, affordable nuclear opportunities for developing nuclear programs,

1. *Suggests* all Member States form an international notification system similar to the International Nuclear and Radiological Event Scale (INES) that operates at a governmental regional level to immediately notify Member States impacted by a reported disaster rather than a civilian notification system such as the INES system:

    a. Which will allow the Member State experiencing an emergency to report emergency details as well as the disaster plan being implemented by the Member State in order to pursue domestic and international disaster plans as necessary;

    b. By including national security forces within the Regional Response Centers to provide timely security support to nuclear sites:

        i. Ensuring Regional Response Centers are located proximal to nuclear sites to allow for timely access;

        ii. Maintaining a staff of nuclear experts, security forces, and trained medical staff to respond in case of emergency and incident;

        iii. Providing appropriate security and medical education for populations surrounding nuclear sites for incident prevention;

2. *Encourages* the creation of a sub-platform within the preexisting IAEA's Unified System for Information Exchange (USIE) that aims to facilitate regional sharing of information regarding nuclear facilities and technology through:

    a. Naming the new sub-committee "Global and Regional Nuclear and Radioactive Preparedness Committee" and including expertise from representatives from the Incident and Emergency Centre (IEC), the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE), and the Emergency Preparedness and Response Standards Committee (EPReSC);

    b. Fostering cooperation between experts specialized in the field of nuclear safety and preparedness response through IEC by providing training, threat assessments, response strategies, improved capacity building, and real-time information-sharing networks;

    c. Providing day-to-day information on the current level of a nuclear emergency in each Member State acknowledging limitations within national security and privacy;

    d. Fostering cooperation between fellow experts specialized in the field of nuclear safety and preparedness response as defined through the IEC;

e. Enhancing collective preparedness through coordinated response in case of a nuclear emergency emphasizing the energy, scientific, and medical sectors and facilities;

f. Requesting USIE to allow sharing of the latest technological information that has possibilities of reduction of nuclear emergencies;

3. *Further invites* Member States of the IAEA to provide one another with the necessary technology to ensure safe and efficient management of power plants to reduce the risk of emergencies:

    a. By providing access to advanced technological resources and real-time knowledge transfer through the Incident and Emergency System (IES) aimed at enhancing safety protocols and risk mitigation strategies in nuclear power plant operations;

    b. Through facilitating collaborative initiatives for the sharing and dissemination of innovative technologies and best practices among Member States, with a focus on addressing common challenges and promoting standardized safety measures;

4. *Supports* the continued research of Small Model Reactors (SMRs) and encourages Member States to share all successes and failures in their development of regionally specific SMRs to get a better international understanding of ideal emergency preparedness:

    a. By the continued usage of the IAEA platform for SMRs;

    b. By the submission of regional data to the newly expanded Integrated Resource Management Information System (IRMIS) system to include environmental factors for SMR safety;

    c. Through collaboration of Member States in academic settings to address the growing needs of SMRs in population-dense areas;

5. *Advises* all Member States to refrain from restrictions on the peaceful development of nuclear energy and sanctions against developing Member States as:

    a. Sanctions directly or indirectly harm the development of peaceful nuclear technology;

    b. Sanctions hinder the development of strong economies, preventing Member States from improving national preparedness and response capabilities;

    c. Member states are fully aware of the risks posed by Nuclear Technology and Development and intend to reasonably follow IAEA safety standards and protocols to ensure the safety of the region's population and infrastructure;

6. *Requests* Member States to collaborate in favor of an international financial framework through the IAEA Technical Cooperation Fund for emergency preparedness by:

    a. Using allocated parts of the IAEA budget towards the construction and continued service of Regional Response Renters;

    b. Enhancing the opportunity for Member States to provide extrabudgetary contributions in support of the mechanisms explained above;

    c. Encouraging the World Bank to provide financial means to secure facilities against all kinds of endangerments and therefore save money from reconstruction in the future;

d. Supporting the development of further domestic security measures through the improvement of existing infrastructure, guaranteeing the implementation of more easily defended and maintained facilities;

e. Suggesting that Member States enhance the security towards nuclear material in transit as well as implementing the Emergency Preparedness Framework (EPF);

7. *Calls upon* all Member States to prioritize the proper disposal of radioactive material to avoid future waste-related emergencies:

    a. Through the utilization of disposal tanks in which waste will be immobilized into glass;

    b. By developing near-surface and geological disposal facilities, including borehole disposal for disused sealed radioactive sources, with a focus on ensuring appropriate containment and isolation measures for long-term safety and remediation of tailings dump, emphasizing upgrades to near-surface repositories;

8. *Endorses* the collaboration between IAEA Member States and Non-Governmental Organizations to develop and improve nuclear emergency preparedness and response infrastructure within the Middle East, in order to prevent nuclear incidents and increase standardized safety protocols:

    a. Through organizations like the International Renewable Energy Agency to improve access to nuclear energy in Member States currently developing nuclear programs as access to the most advanced nuclear technology will increase regional Emergency Preparedness and Response;

    b. By including the Islamic Development Bank to develop medical nuclear safety programming and provide training to medical personnel to reduce error and emergency occurrence rates;

    c. By encouraging Member States to adopt a holistic approach to emergency preparedness and response by incorporating nuclear safety standards in civil, medical, and governmental affairs;

    d. Promoting Member States to implement Global Positioning System (GPS) and Radio Frequency Identification (RFID), which allows Member States to properly track and intercept nuclear materials within their borders;

9. *Affirms* the need for countermeasures in case of emergency situations exposing radioactive energy to areas outside of statutory limits while:

    a. Comprehension of the importance of conventions such as The Convention on Early Notification of a Nuclear Accident (Early Notification Convention) (1986) sets out the responsibilities of a Member State in the event of a nuclear accident occurring within its borders;

    b. Taking into consideration the International Nuclear and Radiological Event Scale (INES) that divides levels 1 through 3 as incidents and further goes on to levels 4 through 7 as accidents;

c. Tasking Member States to ensure the readiness and adequacy of regional response centers at levels of emergency from level 1-5, classified as animality, incident, serious incident, accident with local consequences, and accident with wider consequences;

    i. Including offering experience and expertise-sharing to the other Member States' personnel;

    ii. By improving the reaction and analysis of the Emergency Preparedness and Response Information Management System (EPRIMS) by elevating the current system to real-time operational data sharing, before, during, and preceding incidents among member states and regional response centers facilitating timely information exchange;

d. Mutually assisting, and initiating international coordinated action as requested and approved by the Member State's government without additional international conditions during nuclear and radiological emergencies at level 6 (serious accident) and level 7 (major accident), having a significant release of radioactive materials requiring implementation of planned and extended countermeasures with the goal of minimizing potential impacts on human health, the environment, and socioeconomic stability.

Code: IAEA/1/4
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Noting with regret the negligence such as the lack of emergency plans as well as the negligence of the power plant staff that led to the 1986 Chernobyl disaster,

Emphasizing the need to make Member States aware of the *Joint Convention on the Safety of Spent Fuel Management* (2001) and on the *IAEA Bulletin Safety of Radioactive Waste Management* (2001),

Recognizing that many Member States which are currently in possession of nuclear reactors and nuclear weapons do not have staff that are properly prepared for a nuclear incident,

Recalling the objectives of the *Convention on Early Notification of a Nuclear Accident* (Early Notification Convention) and the *Convention on Assistance in the Case of Nuclear Accident* (Assistance Convention),

Guided by the *Treaty on the Nonproliferation of Nuclear Weapons* (1968), the *Convention on the Assistance in the Case of a Nuclear Accident or Radiological Emergency* (1986), *Treaty on the Nonproliferation of Nuclear Weapons* (NPT) (1986), the *Convention on Nuclear Safety (1994), and the Convention on Early Notification of a Nuclear Accident* (1986), which encourage the peaceful use of nuclear technology and establish regulations and bodies surrounding this use,

Taking into account the IAEA *Technical Report on Environmental Protection in New Nuclear Power Programmes (2024)*,

Underscoring the IAEA Safety Requirements publication on *Site Evaluations for Nuclear Installations (2019)* that reflects the most recent consensus among Member States,

Observing the IAEA Milestone Approach outlined in *Milestones in the Development of a National Infrastructure for Nuclear Power* (2015), which aims to help Member States embarking on nuclear power to plan and develop the necessary infrastructure in a phased way,

Conscious of the Radiological School of Nuclear Leadership and the International Nuclear Security Education Network which work to educate Member States on safe Emergency Preparedness and Response,

Emphasizing the disparity of knowledge between developed countries with nuclear power and developing countries that aspire to have nuclear power,

Taking into consideration the importance of secure implementation of new nuclear plants as an advance for future accident prevention,

Underscoring the importance of training programs for professionals in nuclear industries such as the School of Radiation Emergency Management and other IAEA workshops on preparedness for nuclear or radiological emergencies at the national, regional, local, and facility levels,

Noting the growing importance of emerging technologies, including Artificial Intelligence (AI) and virtual reality, as educational and professional tools and their capacity to contribute to the field of nuclear energy and emergency preparedness,

Highlighting the IAEA Coordinated Research Projects, which encourages and explores research on nuclear energy projects for peaceful purposes,

Acknowledging the Nuclear Safety Directive 2009/71/Euratom, which supports the right each Member State has to the usage and implementation of nuclear energy and power,

Recognizing that many Member States that are currently in possession of nuclear reactors and nuclear weapons do not have staff that are properly prepared for a nuclear incident,

Appreciating previous collaboration and safety regulations established under the Convention on Nuclear Safety (CNS),

Reiterating the definition of natural hazards by the United Nations Office for Disaster Risk Reduction (UNDRR) natural processes or phenomena that may cause loss of life, injury, or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage,

Taking note with satisfaction the examples set by the United States to implement nuclear facilities that are capable of withstanding the effects of natural disasters, namely earthquakes,

Acknowledging the impacts of climate change, natural disasters, and conflict upon nuclear energy facilities and the implementation of Emergency Preparedness and Response solutions,

Expressing grave concern with the current global responsiveness and preparation resources available to citizens within the haphazard radius of active nuclear reactors due to the lack of emergency drills and fallout shelter infrastructure for civilians within Nuclear Reactor towns,

Recalling resolution IAEA-TDL-007, which sets the parameters and training of nuclear transportation in different settings,

Having considered further the IAEA Director General's May 2023 statement to the United Nations Security Council regarding the safeguarding of nuclear power plants and the Seven Indispensable Pillars for ensuring nuclear safety and security during an armed conflict,

Aware that a timely response is crucial to the effects of excessive radiological exposure,

Expressing satisfaction with the avoidance of a nuclear incident regarding the Zaporizhia nuclear power plant in light of the current conflict within Ukraine, yet still remaining cognizant of the risk for a potential incident in the future,

Convinced that there is a need for communication between states and companies that have or operate nuclear power plants to strengthen their nuclear safety laws and protocols,

Concerned that the information-sharing systems in place vary in effectiveness and coverage across the world,

Recognizant of the International Radiation Monitoring Information System (IRMIS) as an important tool for the reporting and visualization of large quantities of environmental radiation monitoring data during nuclear or radiological emergencies,

Having considered the Unified System for Information Exchange in Incidents and Emergencies (USIE) as a secure website maintained by the IAEA to enable countries to exchange urgent notifications and follow-up information during an emergency and facilitates the exchange of notifications and information between countries during an emergency,

Building on the existing efforts of the *Treaty of Tlatelolco* (1967), *Treaty of Rarotonga* (1985), *Treaty of Bangkok* (1995), the *Treaty of Pelindaba* (1996), and the *Treaty of Semipalatinsk* (2006) and their respective regional nongovernmental organizations and commissions including the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), the Pacific Islands Forum Secretariat (PIF), the Commission for the Southeast Asia Nuclear-Weapon-Free Zone (SEANWFZ), the African Commission on Nuclear Energy (AFCONE) to monitor nuclear activity, the *International Convention for the Suppression of Acts of Nuclear Terrorism* (ICSANT) (2008), and the European External Action Service (EEAS),

Acknowledging that Nuclear Safety Directive 2014/87/EURATOM has a reliable baseline for nuclear safety and response plans for Member States outside of the EU to follow,

Reminding Member States that The World Nuclear Association 3/2024 reported that 32 out of 195 Member States run nuclear reactors and emphasizing the importance of nuclear in providing a clean energy future for developing states,

Recalling IAEA's regional collaborating centers initiative, which brings together culturally similar nuclear entities to collaborate and share knowledge, and encourages such initiatives to be expanded to include a focus on strengthening emergency preparedness,

Bearing in mind the creation of the External Events Notification System (EENS) to protect nuclear installations from natural hazards and its limitations in addressing human conflict and error regarding nuclear infrastructure,

Reiterating that according to the Bulletin of the Atomic Scientists, 1 out of 3704 nuclear reactors melt down each year, which is too high to be acceptable,

Taking into consideration the Nuclear Security Plan (NSP), which deals with early warning, monitoring, assessment, prevention, and response to nuclear and radiological emergencies,

1. *Welcomes* Member States to increase financial support for the Radiological School of Nuclear Leadership and the International Nuclear Security Education Network and expand their scope to include training individuals who are involved in handling nuclear materials and the construction, maintenance, and natural disaster resilience of nuclear facilities and increasing equitable access to IAEA Safety Standards Series and Security Standards Series through the use of online training modules in collaboration with global educational institutions, research centers, and relevant organizations;

2. *Endorses* the creation of domestic and transnational programs to educate the general public on the safety and emergency preparedness measures that Member States have taken, and the benefits of nuclear energy;

3. *Calls upon* all willing and able Member States to compose regular training programs and exercises for Member States and individuals working at nuclear facilities by enhancing their national and regional preparedness and response capabilities for emergencies and by placing further emphasis on the systematic approach to training (SAT);

4. *Emphasizes* the need for a novel partnership between the International Network for Education and Training for Emergency Preparedness and Response (iNetEPR) and the Emergency Preparedness Framework (EPF) by convening regular dialogue to tailor programs to all Member States that utilize existing training protocols and ensure accessibility to existing designs of nuclear plants;

5. *Proposes* a virtual reality training program through the UN Innovation Network for first responders in each Member State that would allow for simulated training for response to medical and infrastructural damage from nuclear emergencies and accidents, specialize training based on geographic, political, climate, and other potential threats, and be introduced first in countries with existing nuclear power plants, which would then train smaller, potentially-nuclear Member States for similar implementation;

6. *Requests* the expansion and specification of the Coordinated Research Projects (CRPs), emphasizing collaboration, research projects, the development of nuclear energy reactors or plants, and resource-sharing particularly between Member States with large nuclear energy capabilities and small or developing Member States;

7. *Suggests* Rokkasho Solution Measurement and Monitoring System (SMMS) employ rapid scanning, processing, and modeling through AI software to identify internal discrepancies in nuclear processing machines using a new high-technology scanner applied to the chemical liquid reprocessing mechanism;

8. *Further encourages* Member States to adopt the framework to ensure the safety of nuclear installations through the means of providing information to the public, educating and training all functioning actors, and arranging for Member States to hold periodic self-assessments to test their national frameworks and competence;

9. *Recommends* the creation and modernization of internal nuclear regulatory bodies within Member States to:

    a. Ensure compliance with the guidelines of the Convention on Nuclear Safety and other IAEA standards;

    b. Assist in the safe implementation of framework and infrastructure for nuclear power plants in non-nuclear Member States, in accordance with the Safety Standards published in 2022;

    c. Consider regional circumstances such as humanitarian crises in the implementation of nuclear plants and adjust accordingly;

10. *Recommends* that the IAEA collaborate with national and international environmental agencies to cultivate research and to establish guidelines to set regional nuclear facilities based on the climate that are organized by common natural hazards defined by the UNDRR through its oversight along with the IAEA to set standards;

11. *Requests* Member States to inform employees of nuclear power plants to properly dispose of nuclear materials in the future so that contamination of the public may be avoided;

12. *Strongly advises* Member States to further prepare nuclear power plant employees through drills for potential nuclear incidents by:

    a. Assist in funding the IAEA so that more workshops can be initiated;

    b. Initiating exercises for nuclear power plant employees to prepare for various potential incidents;

13. *Requests* that the private sector inspects and considers global nuclear agreements and national procedures on nuclear safety and proactively reassesses training and e-learning modules and implement current and future advice from the Institute of Nuclear Power Operations (INPO);

14. *Invites* Member States' leaders to an Emergency Preparation Conference to discuss expanding the *Joint Radiation Emergency Management Plan (JPLAN)* by incorporating, informing, and incentivizing civilians of Nuclear Reactor towns by:

    a. Encouraging the construction of fallout shelter safe-havens;

    b. Developing updated international evacuation plans;

    c. Conducting coordinated simulations and drills regarding emergencies such as power outages, cyber-attacks, shelter-seeking, and attacks on and trafficking of nuclear material;

    d. Utilizing the Response and Assistance Network (RANET) centers to further provide easily accessible information to Member States during simulation scenarios, including informing citizens within a radius of Nuclear Reactors of the location of their designated fallout shelter and facilitating their safe relocation;

15. *Suggests* the implementation of mobile tracking devices to be used for the security of nuclear materials employing drones allowed by the country to lock onto the nuclear isotope, which utilize either carbon fiber or electromagnetic pulse proof metals, alternating encryption, and solar panels and implementing the improvement of the mobile tracking device every four years to keep the security constantly strengthened;

16. *Suggests* that Member States and Non-Governmental Organizations (NGOs) support the funding of regional response groups that will be able to respond to any extreme event;

17. *Directs attention* to the Seven Indispensable Pillars for ensuring nuclear safety and security during an armed conflict in both domestic and international manners to:

    a. Guarantee secure and undisrupted logistical supply chains to and from nuclear facilities;

    b. Safeguard operating staff to make sure they can safely, and distress free, fulfill their duties;

    c. Ensure that nuclear facilities are operating at the highest capacity by securing communication, power supply, and physical infrastructure from armed conflict;

    d. Enact cease-fire zones over nuclear facilities;

18. *Supports* the extension of the Nuclear Security Plan (NSP) through the following suggestions:

    a. Reporting an assessment of the resulting risk of nuclear emergencies including suggestions for measures to mitigate risks as a result of the armed conflict within 90 days of such an incident and updating the assessment every 6 months;

    b. Expanding early warning to include situations regarding political instability, territorial disputes, and radioactive terrorism, urging Member States to transparently communicate these situations which may impact nuclear or radiological infrastructure;

    c. Sending personnel and monitoring equipment to nuclear facilities within the conflict zone, with the consent of the sovereign Member State;

    d. Cooperating with the United Nations Office of Counter-Terrorism (UNOCT), the United Nations Department of Peacekeeping Operations (DPO), the United Nations Security Council (UNSC), and all other relevant international organizations, through sharing capabilities and information sharing regarding knowledge on nuclear issues in conflict zones;

    e. Encouraging all Member States to participate in the monitoring of nuclear facilities, execute the recommendation of the designated task force, and provide information to the designated task force;

19. *Suggests* the expansion of IRMIS by improving sensor infrastructure by employing updated sensor technologies, establishing an adequate amount of sensors in the development of nuclear material and power plants, and a standardized reporting format for nuclear and radiological infrastructure data where Member States can share information on their nuclear facilities, safety measures, and emergency response plans while ensuring such measures are tailored to specific Member State needs;

20. *Invites* Member States to improve upon the Unified System for Information Exchange in Incidents and Emergencies (USIE) by encouraging all Member States to participate in this information-sharing system and endorsing the transparent provision of incident information, expertise, and resources on emergency preparedness and response to the system;

21. *Endorses* the creation of regional information-sharing guidelines to advance the development, refinement, and maintenance of early warning systems by:

    a. Establishing and maintaining international channels of communication between all Member States for assistance in the event of a nuclear accident;

    b. Enhancing transparency and information sharing around nuclear power plants by utilizing the Power Reactor Information System (PRIS) and increasing reports to this system by those Member States with nuclear power plants;

    c. Endorsing membership in the International Radiation Monitoring Information System (IRMIS), the Unified System for Information Exchange (USIE), and the Emergency Preparedness and Response Information Management System (EPRIMS);

22. *Encourages* IAEA Member States to strengthen regional cooperation on safety guidelines and secure infrastructure with states that currently operate nuclear reactors to help better prepare

EPR forces in local regions to deal with local problems, and the building of new nuclear power plants and sharing the electrical infrastructure;

23. *Recommends* regional non-governmental organizations collaborate further with the IAEA to enhance regional nuclear accident contingency plans and existing emergency preparedness plans to bring them in line with the Nuclear Security Series and Nuclear Safety Series;

24. *Further Recommends* that regional non-governmental organizations facilitate interregional and intraregional communication and jointly assess regional nuclear accident contingency plans, existing emergency preparedness plans, security infrastructure, and safe transport mechanisms to provide recommendations on addressing the specific concerns of their respective zones;

25. *Advises* Member States to consider adopting measures inspired by Nuclear Safety Directive 2014/87/EURATOM by:

    a. Suggesting the Amendment of the Nuclear Safety Directive 2014/87/EURATOM to include new safety and regulatory procedures by expanding the directive to an international level to include more Member States through a system of peer reviewers of nuclear reactors chosen by Member States;

    b. Requiring operators of nuclear power plants to provide information to the public during both times of crisis and normal operation;

26. *Invites* the consideration of the amendment of the Convention of Early Notification of a Nuclear Accident (1986) to create specific data requirements by encouraging the IAEA to partner with the Security Council by:

    a. Enforcing data requirements and to facilitate information sharing to prevent and prepare for radiological accidents;

    b. Receiving funding from the United Nations Development Programme;

27. *Encourages* Member States, particularly those considering introducing nuclear power, to maintain and improve their nuclear security and safety infrastructure;

28. *Supports* the implementation of a comprehensive reporting system that tracks the progress of Member States in terms of their nuclear power development and education initiatives by strengthening technology use and administering a platform where Member States will be required to submit data semi-annually, and the IAEA will provide guidance and technical assistance to enhance their capabilities.

Code: IAEA/1/5
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Welcoming the expansion of nuclear energy plants in all Member States while demanding stringent safety standards,

Acknowledging the resolution G(66)/RES/6 on “Nuclear and Radiation Safety”, which highlights the need for common standards to be implemented globally for nuclear safety in the operation and maintenance of nuclear sites,

Recalling the *Geneva Convention* (1949) which allowed the demilitarization of schools and hospital zones during the conflict, under Article 18 related to the protection of civilian persons in times of war,

Cognizant of the crucial role the International Atomic Energy Agency takes in promoting the peaceful use of nuclear energy and preventing its use for military purposes,

Deeply concerned about the threat posed by armed terrorist groups and interstate conflict to the safety and security of nuclear power plants and the transportation of nuclear materials, and recognizing the catastrophic consequences that could arise from the seizure of such material and facilities by terrorist organizations,

Upholding the sanctity of the Seven Pillars of Nuclear Safety and Security (2022) with an emphasis on the first pillar being the physical integrity of the facilities, whether it is the reactors, fuel ponds, or radioactive waste stores must be maintained,

Bearing in mind the specific challenges faced by Member States that are recovering from conflicts and the importance of international support in these efforts,

Emphasizing the significance of emergency preparedness and response (EPR) as a cornerstone of national and international security, particularly in regions vulnerable to conflicts and terrorism,

Taking note of the potential utilization of unmanned aerial vehicles in monitoring and surveillance of material transportation, in particular radioactive materials, and waste,

Encourages Member States to continue developing safe nuclear energy techniques and expanding the use of nuclear energy while prioritizing the longevity of these plants through the establishment and implementation of robust protective standards,

Considering the implementation of SDG 17 (Partnership for the Goals) within all Member States to ensure EPR and consensus building regarding nuclear facilities,

1. *Directs* the Secretariat to create a network of emergency response maintenance teams led by the International Atomic Energy Agency, which would ensure that during an emergency, a team of international experts can maintain its operation, and its safety;

2. *Encourages* Member States to adhere to the United Nations Framework on the Designation and Enforcement of the Conflict-Free Zone (CFZ) in areas identified as high-risk for nuclear proliferation linked to conflict;

3. *Requests* Member States to create response programs in fragile and crisis-affected areas;

4. *Urges* Member States to consider collaborating in the development of international defense strategies against the threat of terrorism that could lead to the misuse of nuclear materials;

5. *Proposes* the creation of an International Atomic Energy Agency-led initiative to assist Member States in developing comprehensive emergency preparedness plans, recalling the work of EPR with a focus on rapid response to nuclear security threats arising from conflict and terrorism;

6. *Suggests* Member States prepare security measures and protocols during times of conflict in adherence to the first pillar of the International Atomic Energy Agency;

7. *Recommends* Member States to maintain and update the physical integrity of nuclear facilities, including fail-safes, containment structures, and insulation from cybersecurity threats;

8. *Further recommends* the utilization of domestic or requested unmanned aerial vehicles to complement security forces by monitoring and securing nuclear facilities and uranium mining sites using thermal imaging techniques;

9. *Calls for* the implementation of domestic or requested unmanned aerial vehicles in the secured and safe transportation of radioactive and nuclear material;

10. *Advocates* for the protection of shipping lanes, especially during times of conflict when transporting radioactive or nuclear material;

11. *Insists* the Secretariat implements the actions called for in this resolution in a prioritized, efficient manner within available resources;

12. *Designates* the Secretariat to report in detail at the next regular session of the Board of Governors and the General Conference on the implementation of this resolution, and other relevant developments in the intervening period;

13. *Suggests* the creation of an international task force aimed at maintaining safety standards composed of scientists and technicians of International Atomic Energy Agency Member States, which will change every 6 months;

14. *Urges* Member States to create safety plans considering corridors of transporting dangerous nuclear materials.

Code: IAEA/1/6
Committee: International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Realizing the International Atomic Energy Agency (IAEA)'s aim to accelerate and enlarge the contribution of atomic energy, peace, health, and prosperity throughout the world,

Acknowledging the importance of achieving Sustainable Development Goal (SDG) 14 (promoting healthy oceans and marine ecosystems),

Cognizant of the risks nuclear incidents may pose to attaining SDG 3 (good health and wellbeing) and SDG 15 (life on land),

Noting the importance of collaboration in the field of atomic energy to achieve SDG 7 (affordable and clean energy) and SDG 17 (partnerships for the goals),

Recalling the existing systems that aid in information sharing, such as the Integrated Radiation Monitoring and Information Systems (IRMIS), EPR Information Management System (EPRIM), and the Response and Assistance Network (RANET),

Conscious of the historical disadvantages coastal nations face during maritime nuclear accidents,

Recognizing that according to the World Association of Nuclear Operators (WANO), one-fourth of nuclear power plants are situated along coastlines and other bodies of water and that disasters at these locations have profound radiation effects on multiple states and share,

Concerned by the lack of accountability among private sector vessels, which has resulted in the increased incidence of maritime radiological accidents affecting environmental and community stability,

Mindful that saltwater reactors used by coastal nations are efficient but are prone to cause devastating effects on the environment and surrounding population in the event of a link,

Understanding the importance of promoting equal accessibility to preventative technologies and early notification systems such as underwater surveillance networks and sonar systems that mitigate threats to maritime security,

Appreciating the collaboration between the IAEA and the World Meteorological Organization (WMO) in the development of Isotopes to identify the origin of greenhouse gas emissions and the effects that they have on the changing environment, causing risk to vulnerable nuclear reactors,

Recalling the International Symposium on the Deployment of Floating Nuclear Power Plants (FNPPs), held on 14–15 November 2023, in Vienna, Austria, to enhance the contribution of nuclear energy to achieving net zero carbon emissions,

Affirming the Law of the Sea, the legal framework for all marine and maritime activities is valued by all Member States,

Remembering GC(67)/RES/7, which details that Member States, under international law, have the obligation to protect and preserve the environment, including the marine and terrestrial environment,

Acknowledging the impact of the IAEA Technical Cooperation (TC) programme, which focuses notably on helping Member States improve radiation safety and nuclear security in several different regions,

1. *Encourages* Member States from which nuclear accidents originate to financially contribute to relief efforts affecting other states' coasts to the extent of their capability while adhering to the principles of international responsibility and transparency;

2. *Decides* accordingly that Standard Measures for Atomic and Radioactive Technology (SMART) should be created whereby all Member States shall create and/or strengthen national regulatory authorities with technical and financial support through the Peaceful Uses Initiatives (PUI) that monitor nuclear energy within their borders to ensure that IAEA and other international protocols can be ratified in all Member States and which will:

    a. Share information on nuclear and radioactivity usage through the Integrated Radiation Monitoring and Information Systems (IRMIS), EPR Information Management System (EPRIM) and the Response and Assistance Network (RANET);

    b. Start with a pilot which should start by the last quarter of 2024, after which it shall be evaluated and adjusted accordingly before rolling out to other Member States starting in 2025;

    c. Emphasize the need to ensure that all member states have equal accessibility to the notification system being proposed;

3. *Invites* Member States to sign onto programs and systems designed to prepare for nuclear incidents, such as utilizing guidelines as outlined in the 2012 *EPR-Public Communications*, and inform at-risk Member States of coastal nuclear emergencies;

4. *Directs attention* to the need for appropriate security detection architecture based upon the IAEA nuclear Security System Series which leverages Near-Real-Time accountancy in line with the Unified System for Information Exchange to ensure Member States can be made aware of nuclear incidents in both land and maritime environments promptly;

5. *Suggests* the establishment of a long-term emergency preparedness team funded by RANET specialized in nuclear accidents at sea, particularly in sensitive regions that face unique geographic challenges;

6. *Welcomes* the development of an Ocean Protection Program (OCEANPRO), which would help Member States to better respond to incidents involving radioactive materials in the oceans by:

    a. Creating mutual assistance agreements outlining procedures for sharing emergency response teams, equipment, and supplies to facilitate a coordinated and effective response to nuclear incidents;

    b. Developing an international fund, overseen by the IAEA, to provide monetary assistance to coastal regions impacted by nuclear accidents in maritime zones for disposal of radioactive materials, rescue operations, environmental restoration, healthcare services, and additional safety measures;

c. Researching the further use of Thorium fuel for saltwater reactors to reduce the chance of radiation leakage in the case of a nuclear accident;

d. Implementing National Oceanic and Atmospheric Administration (NOAA);

7. *Recommends* for Member States to implement facilities that will bring together experts trained in multi-disciplinary skills that can help provide technological innovations in order to prevent maritime nuclear incidents on the ocean and in climate-challenging regions;

8. *Promotes* risk assessment for natural disasters around nuclear power plants through:

    a. Creating a separate database of weather and seismic patterns that is jointly overseen by the IAEA and the WMO (World Meteorological Organization) to specifically track weather patterns along coasts with proximity to nuclear power;

    b. Gathering data around power plants through the WMO's resources such as the Flood Forecast Guidance System or the Severe Weather Forecasting Program to allow Member States to view information about possible natural disasters;

    c. Expanding research done by IAEA and WMO as it pertains to isotopes in surface water in proximity to coastal nuclear power plants and surrounding maritime space;

    d. Adapting the use of the IAEA maritime radioactivity information system to monitor the amount of radionuclides in the seawater of coastal regions that are in close proximity to nuclear power facilities;

9. *Advises* Member States prone to similar natural disasters to collaborate on improving systems around nuclear accidents and emergency response, specifically to support nations within coastal regions that have limited capacities;

10. *Expands* the practical Agreement between the IAEA and the United Nations Environmental Program through:

    a. The creation of an international system that prioritizes Seawater Emergency Analysis (SEA) as part of the Emergency Preparedness Response Information Management System (EPRIMS) through:

        i. Monitoring the radioactivity of ocean waters around nuclear power plants with a buoy system of gamma-ray spectrometers;

        ii. Serving as a system for remote monitoring of gamma-ray emitting radionuclides in surface seawater in real time;

        iii. Alerting IAEA authorities and national authorities if an unsafe level of radioactive particles is detected in the water;

    b. The implementation of marine monitoring devices such as aqua drones that collect water samples to be analyzed, in order to monitor contamination levels to ensure these contaminants remain within safe levels by promoting the testing of marine species used for consumption to determine the toxin levels;

c. The utilization of natural, native resources, including microalgae, aquatic plants, algae, and clams, to mitigate the negative impacts of marine contamination and absorb excess radiation pollution in coastal areas;

d. Petitioning the Secretariat, in close consultation with Member States, to develop infrastructure and legal approaches for FNPPs to protect and preserve the safety and security of FNPPs and the environment, in particular open seas and oceans, from radioactive wastes and hazards;

11. *Endorses* the establishment of an IAEA research group with the task of researching current and future technologies to reduce the damages that saltwater reactors can cause by focusing on thorium full rods, different cooling systems, and molten salt reactors to replace current coastal reactors;

12. *Considers* regional training courses modeling the Contact Project, which enhances nuclear security in coastal nations by convening law enforcement and customs officials, policymakers, technicians, and counter-terrorism officials to design safety guidelines and mechanisms to strengthen emergency preparedness and response in the sea;

13. *Encourages* the IAEA to support best practices on protecting coastal regions from the negative effects of radiological risk and nuclear disasters;

14. *Requests* the Director General to submit a report on the implementation of this resolution to the Board of Governors and the General Conference at its next regular session;

15. *Directs attention* to improving research to determine safe levels of radioactive materials in consumable marine life, specifically for maritime nations reliant on fisheries, utilizing subdivisions such as the IAEA Division of Marine Environment Laboratories;

16. *Expanding* the IAEA TC program to emphasize EPR in vulnerable communities with maritime access and limited infrastructure.

Code: IAEA/1/7
Committee: The International Atomic Energy Agency
Topic: Maintaining and Strengthening Emergency Preparedness and Response

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The International Atomic Energy Agency,

Observing the persistent lack of awareness in nuclear material,

Highlighting that Member States developing their nuclear energy processes may benefit from mirroring Member States that have established facilities of their own,

Reaffirming the IAEA's dedication to developing civil nuclear collaboration,

Recognizing the significance of international and regional awareness during and after nuclear accidents,

Understanding inherent limitations of economically disadvantaged Member States and developing Member States facing effectively addressing nuclear crises,

Recognizing the inadequate responses to the Chernobyl Incident of 1986 and the Fukushima incident in 2011 due to a lack of data sharing,

Acknowledging the International Nuclear Information System (INIS) which is an information source that hosts published information on the peaceful uses of nuclear science and technology,

Recognizing the Response and Assistance Network (RANET), and their promotion of peaceful use of nuclear energy through provisions of requesting medical support, radiation surveys, and evaluations of emergencies and incidents relating to disasters,

Further emphasizing importance of information sharing systems in terms of preventing and responding to nuclear accidents such as the Convention on Early Notification of Nuclear Accident (1986),

Affirming the significance of monitoring and analyzing nuclear energy use at the regional level,

Emphasizing Article 3 of the IAEA Statue in ensuring information sharing, the exchange of scientific as well as technical information in equipping Member States with the skills and resources necessary for the safe use and operation of Nuclear Reactors,

Fully aware of INTERPOL’s Geiger database, since 2002, over 4,200 incidents have taken place involving radiological or nuclear material,

Emphasizing the criticality of accurate and thorough data collection when devising emergency preparedness measures and procedures,

Understanding the essential need for early warning notifications and information sharing on the status of radiological and nuclear infrastructures,

Recalling the United Nations High Commissioner for Refugees’ (UNHCR’s) award granted in January 2024 due to their successful implementation of blockchain technology as a way to raise funds for internally displaced persons,

Emphasizing the continued supervision, proper, and designated usage of radioactive and nuclear materials in line with the IAEA Safety Standards Series,

Concerned by safety risks posed by informal agreements between nuclear resource-exporting Member States and nuclear resource-importing Member States;

Recalling further the Technical Cooperation Program (TCP) to support non-nuclear Member States in the development of their nuclear infrastructure and the application of safety standards,

Fully alarmed by the lack of endeavor on emergency prevention and response as the IAEA's technical cooperation took place only 16.7% in the safety and security sector, according to the IAEA's Technical Cooperation Report for 2022,

Highlights the importance of Member States with nuclear energy plants and the emphasis of safety regulations,

Noting the long-lived radioactivity of biotoxic heavy metals in uranium tailings according to the United Nations Office for Disaster Risk Reduction,

Understanding the risk of radiation leakage when transporting radioactive materials,

Underscoring the importance of harmonizing national legislation across Member States to ensure consistency in crisis prevention and response,

Deeply conscious that 25 percent of the world's nuclear power plants greatly exceed the recommended safe 40-year lifespan, creating risks of malicious attacks or external threats and ecological or human harm according to the World Nuclear Association's (WNA) report *Safety of Nuclear Reactors* (2022),

Deeply concerned by the number of nuclear power plants operating and planned over the world having a high risk factor due to lacking resources to safeguard most recent technologies,

Taking into consideration the emerging issue of cyber-attacks, the increased risk of potential harm to both civilians and the environment and the need to dedicate a special global legislation and actions to tackle this threat,

Fully aware that access to education networks such as the International School on Nuclear and Radiological Leadership for Safety, International Network for Education and Training for Emergency Preparedness and Response (INET-EPR), the International Nuclear Security Education Network (INSEN) is less accessible to some Member States and therefore contributes to a lack of knowledge and experience in beginning stages of their nuclear infancy,

Recognizing that 82 Member States had IAEA training events in the area of emergency preparedness and response since its implementation in 2021, according to the IAEA Nuclear Safety Review 2022,

Keeping in mind the role of the General Assembly resolution 70/1 (2015) "Transforming our world: the 2030 Agenda for Sustainable Development", especially the Sustainable Development Goals (SDG) Good health and well-being (3), Affordable and Clean Energy (7), Responsible consumption and production (12), Life below water (14) and Life on land (15),

Alarmed by the impossibility of most of the workers to come to work in case of global urgencies, as a pandemic,

1. *Urges* Member States to utilize expert recommendations and design safety plans provided by the IAEA's Site and External Events Design Review Service's (SEED) framework, which provides three-step review processes as well technological measures to provide ecological protection and prevent nuclear accidents resulting from external threats including cyber attacks, and climate and seismic events;

2. *Encourages* Member States to participate in the IAEA's International Radiation Monitoring System (IRMIS) to strengthen the framework for preparedness by compiling international data into a real time display of radiation levels available to all Member States, international organizations, and IAEA personnel;

3. *Calls upon* the creation of a blockchain-based ledger that all Member States can voluntarily join to more effectively communicate and manage all parts of their nuclear process by:

    a. Securing all information by only allowing those on a need-to-know basis or those with the highest government security clearance to view the ledger.

    b. Decentralizing and encrypting all information, allowing Member States to add data points to regional ledgers with accurate and verified entries produced in the verification process to then be included in an international ledger to improve the international information sharing network;

    c. Implementing several programs including the funding of data sharing, emergency relief provided by non-governmental organizations, cyber, and radiation monitoring, as further explained below, into the blockchain-based ledger for all Member States to utilize;

    d. Writing a guide to help all Member States easily and seamlessly implement these dual systems;

    e. By including existing verified data into the ledger in order to produce robust and complete ledgers;

    f. Using the mining process to verify and secure that accurate and voluntary data is included in the ledgers to prevent the addition of inaccurate and forced information to be added to ledgers creating confident data points;

    g. Ensuring that the sovereignty and security of each Member State be the top priority, and sharing any information that has possibilities to threaten national security, economic status, and individuals' privacy should be forbidden;

4. *Further encourages* the creation of the Communicate to Warn (COMWARN) hub to allow Member States to share best practices, incident information, and coordinate response efforts to nuclear and radiological incidents which shall:

    a. Help create quicker responses to nuclear emergencies;

    b. Prevent possible civilian and environmental harm;

    c. Be implemented by UNDP and the World Nuclear Association;

    d. Be funded by the Nuclear Regulatory Commission;

e. Provide Member States with scientific information or invention that has a positive impact on nuclear Emergency Preparedness Response (EPR);

f. Encourage the use of COMWARN as a centralized system for all existing IAEA data and communication system;

5. *Recommends* Member States share their scientific information or inventions that have had positive impacts on the nuclear energy sector, the scientific research sector, and agricultural facilities through a newly expanded IRMIS;

6. *Invites* Member States considering the implementation of nuclear facilities to join the Unified System of Information Exchange, enabling Member States to access the latest innovations in nuclear safety and EPR systems, leveraging the specialist knowledge of engineers and technicians and public-private partnerships to better support Member States;

7. *Recommends* Member States implement international and intergovernmental standardization modeling networks modeled after the information sharing platform Global Safety and Security Network (GNSSN), an information-sharing platform that provides frameworks at a global, regional, and national level to promote multilateral cooperation;

8. *Encourages* IAEA Member States to register their capabilities to assist in RANET to share their knowledge, techniques, and advice about decontamination, dose assessment, medical support, sampling, and analysis or radiation survey;

9. *Further invites* international cooperation with the goal of securing development and expansion in non-nuclear energy user Member States through coordinated assistance by the IAEA, thus helping the future user Member States to:

    a. Organize partnerships between user and non-user Member States, under the supervision of the IAEA, the Partnership for Nuclear Infrastructure Development (PNID);

    b. Ensure compliance with international standards and international observers;

    c. Promote the contribution of developing Member States and regions, and make nuclear energy safe in the future;

10. *Urges* the remediation of tailings dumps to reduce background radiation levels to a natural level within the perimeter of the sites;

11. *Requests* to tackle the cyber risk issues with a collaboration of Member States inside the IAEA, and thereby:

    a. Suggests the creation of a cyber expert committee inside the IAEA named Nuclear Cyber Risk Committee (NCRC), with the objective to:

        i. Define an international minimum cyber standard to protect strategic nuclear installation;

        ii. Conduct audits, check the respects of the standards defined by the expert committee and advice the Member States on the settlement of those standards;

        iii. Assist Member States wanting to implement these standards;

b. Calls for the creation of a convEx level 3 exercise dedicated to the cyber risk against nuclear power plants or any other strategic nuclear installations;

c. Encourages the use of the INSEN network to facilitate training and mitigation of cyber attacks against nuclear installations;

12. *Recommends* the adoption of the PST1A-6 container as the new standard for the transportation and storage of low level solid radioactive waste;

13. *Suggests* the extension of the IAEA Safety and Security Standards through the Standard Measures for Atomic and Radioactive Technology (SMART) program whereby Member States ensure these safety and security measures are implemented through National Atomic Energy Authorities (NAEAs) which:

    a. Coordinate domestic action and guidelines in Member States, and ensure they are consistent with international standards put forth by the IAEA and other concerned agencies;

    b. Ensure that all radioactive and nuclear activities within the borders of a Member State are shared through the Integrated Radiation Monitoring and Information Systems (IRMIS) and EPR Information Management System (EPRIM);

    c. Initiate a pilot modeled upon the Authority for Nuclear Safety and Radiation Protection which will focus on legislative oversight and licensing of nuclear technologies, with the expectation of beginning by quarter four of 2025, after which the pilot's effectiveness shall be evaluated and adjusted accordingly based on Member State feedback in 2026;

    d. Are to be provided when requested with technical and financial support through the IAEA Peaceful Uses Initiative (PUI) in the creation of these NAEAs to ensure that IAEA and other international protocols can be ratified in all Member States;

    e. Through the creation of a database of specialists, which allows for the implementation of support during global emergencies, the expansion of the workforce, the further development of training programs, and the dispatch of engineers to power plants lacking workers;

14. *Requests* that the IAEA secretariat allocates funding through the regular budget and, where applicable, leverage voluntary contributions from Member States to support and strengthen technological advancements, and promote updated construction guidelines and addressing the key initiatives discussed;

15. *Urges* the supervised, proper, and designated usage of radioactive and nuclear materials following the IAEA Safeguards Protocols in the first three phases and milestones according to the IAEA Milestones Approach system established in 2008;

16. *Calls upon* the reinforcement of security measures and exercises such as the ConvEx level 3 exercises by:

    a. Proposing to increase the number of exercises to reach the objective of one per year against one every three years now;

    b. Respectfully enjoining to all Member States to facilitate the inspection of IAEA;

17. *Encourages* Member States who export nuclear resources to develop bilateral agreements with partnering Member States to ensure nuclear energy used by importing Member States is only used for peaceful purposes;

18. *Further recommends* the creation of a voluntary international advisory committee, the International Emergency Preparedness Advisory Committee (IEPAC), available to all Member States under Emergency Preparedness and Response, to:

    a. Observe nuclear projects within Member States, ongoing and developing, providing feedback relating to Emergency Preparedness and Response;

    b. Recommend a framework pertaining to technology safety assistance, nuclear safety, and training guidelines;

    c. Ensure equal representation for every Member State with two trained members of this advisory committee per Member State, which encourages inclusiveness among developing Member States;

    d. Provide a training period to qualify as a regional representative of IEPAC of one year, in order to be fully knowledgeable of nuclear risks, safety measures, and EPR guidelines;

19. *Encourages* IAEA Member States to join the WHO's REMPAN, which offers specific specialized sessions for assisting medical team response to radiological emergencies through Disaster Medical Management training modules;

20. *Recommends* Member States that are Least Developed Countries (LDCs) and Landlocked Countries (LLDCs) utilize feasible training resources to advance technological development in emerging nuclear resource energy production facilities under emergency preparedness frameworks;

21. *Advises* collaboration between INET-EPR and INSEN to facilitate the involvement of a greater array of stakeholders and qualified personnel via meetings, surveys, personal communications, forums, and publications to assess the sustainability and viability of education programs, share feedback, and contribute to further development or improvement of programs, which is facilitated by the chair or secretariat of the respective body, particularly through interregional workshops;

22. *Urges* the international community allow indiscriminate access to education and training programs by:

    a. Using targeted regional programs that address topics such as EPR infrastructure management, nuclear facility operation, packaging materials for transport, and safe handling;

    b. Collaborating with ongoing research from IAEA's coordinated research projects that focus on updating currently existing international guidelines and frameworks to include suggestions on information presented through INIS;

    c. Urging Member States to develop national-level models reminiscent of the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) training program, which will allow first responders and radiation protection specialists to receive on-site exercises and lectures;

d. Using the IAEA Learning Management System to equip specialists at nuclear facilities with the information necessary to raise violations of the IAEA Safety and Security standards alongside the Technical Cooperation Program;

23. *Asks* that Member States use the Education Capability and Assessment Planning (ECAP) framework to identify skill gaps in the nuclear industry and topics which training programs need to address as a matter of priority, ensuring all nuclear sites are equipped with appropriate specialists;

24. *Recommends* informational trainings that ensure nuclear energy specialists in Member States have access to necessary tools and skills for accurate data collection unique to their relationship with nuclear energies, conducted by intergovernmental organizations (IGOs) including the IAEA, which can provide data collection trainings for nuclear energy specialists in Member States in their nuclear infancy, and the UN Commission on the Status of Women (UN Women), partnered with the IAEA, that can provide data collection resources and support for women who conduct nuclear energy research;

25. *Recommends* Member States' expanded participation in experiential training programs utilizing international communication, information-sharing, and alarm systems, such as the IAEA's National Tabletop Exercise on Management of the Response to a Nuclear Security Event (2023), which includes real-time crisis simulations for technical experts, facility management and operators, and regulatory policymakers to better prepare specific nation responses for nuclear emergency situations;

26. *Requests* that the IAEA steering committee recommend the allocation of funding through the regular budget and where applicable leverage voluntary contributions from Member States to support and strengthen technological advancements, promote updated construction guidelines, and address the key initiatives discussed;

27. *Supports* the IAEA reporting on Member State voluntary contributions at the IAEA general conference;

28. *Urges* Member States in their nuclear infancy to obtain an IAEA Integrated Nuclear Infrastructure review in order to assess readiness and required steps to establish a nuclear energy program;

29. *Encourages* Member States to adopt Nuclear Proximity Units (NPUs) as a standard measure used to assess the number of individuals who are located within a 20 kilometer radius of a nuclear site for the purpose of facilitating efficient evacuations during the event of large scale nuclear incidents.

Code: IAEA/2/1
Committee: The International Atomic and Energy Agency
Topic: Ensuring the Safe and Secure Transport of Radioactive Material

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The International Atomic Energy Agency,

Recalling the *Regulations for the Safe Transport of Radioactive Material* (1961), the *United Nations Recommendations on the Transport of Dangerous Goods* (1956), the *Convention on the Physical Protection of Nuclear Material* (1979), and the *Amendment to the Convention on the Physical Protection of Nuclear Material* (2005) which outline guidelines on the safe transport of nuclear material,

Considering the ability of IRRS reviews to ensure the stability and safety of nuclear and radiological transportation methods,

Deeply Appreciate Poland's commitment to expanding methods of transportation to safe disposal sites,

Acknowledging the fact that thousands of shipments of radioactive materials are shipped each day,

Aware that more than 15 million of radioactive material are transported each year on public roads, railways, and ships,

Recognizing the many internal regulatory bodies that already exist within Member States that help ensure the safe and secure transportation of radioactive materials,

Distressed that according to the IAEA, 146 incidents involving nuclear material trafficking have been reported in 2022, which shows the alarming rate that material is illicitly trafficked,

Deeply concerned by the 4,075 occurrences of unauthorized activities involving nuclear and radioactive materials between 1993 and 2022, 344 of which were linked to malicious activity,

Considering a 10% increase in reported thefts of nuclear material during transport in the last decade,

Guided by No. SSR-6 (Rev.1) which lays out the parameters of the transportation regulations that need to be set for transporting radioactive materials,

Reaffirming A/RES/59/290 which is the convention of suppression of acts on nuclear terrorists,

Reaffirming the need for Member States to create safe conditions for all citizens who live near a nuclear installation to prevent potential health consequences in the event of an emergency such as radiation poisoning,

Fully aware of the fact that according to the World Nuclear Association, 15 million packages of radioactive material are transported average per year,

Deeply disturbed by the amount of missing nuclear and radiological material which can spread through natural forces to all Member States,

Encouraged by policy such as the International Carriage of Dangerous Goods by Road (ADR) which between a body of international organizations to ensure safe transportation of radioactive goods,

Taking note of the Early Warning Notification System (EENS), the Incident Emergency Centre (IEC) and the External Event Safety Section (EESS) which collaborate to provide information to Member States on threats to nuclear materials,

Endorsing Application Programming Interfaces (APIS) generated by the University of Hawaii's Pacific Disaster Center and Tenefit to provide customized data interfaces on natural disasters,

Recognizing the risks associated with the irresponsible distribution of radioactive material export and import licenses,

Aware that two dozen trucks have been stolen in Mexico containing nuclear material within the last two years,

Alarmed by the fact that radioactive materials are more vulnerable during transportation,

Commending the policies set by radioactive material exporting countries such as Australia to constrict the use of their materials for peaceful non-weapon purposes,

Acknowledging the diligent work of the Incident Emergency Centre (IEC), and the External Event Safety Section (EESS),

Regarding with regret the devastating effects of the Chernobyl and Fukushima Daiichi incident,

Recognizing the increasing need to enhance the safety and security of radioactive material transport through advanced technological means,

Aware of the imminent threat to radioactive security and transport,

Acknowledging the need for regional operations to limit non-state actors impacting radioactive transport,

Calling attention to the harmonization problem with the implementation of international regulations as designed by the IAEA,

Fully knowledgeable of 50% of radioactive materials stolen during transport between 1993 and 2001,

Recognizing that 15 million packages of radioactive material are transported each year,

Recognizes the importance of efficient modes of transportation for materials required in nuclear reactor construction,

Desiring the creation of unmanned elevated high speed rail lines to efficiently transport nuclear materials to hospitals and locations which require constant deliveries,

Recognizing the increasing need to enhance the safety and security of radioactive material transport through advanced technological means,

Noting that according to the IAEA's Nuclear Security Review (2023), between 2021 and 2022, there was a 50% increase in activities related to the transportation of nuclear materials,

Recognizing the need to tackle the lack of collaboration between Member States,

Encouraging the establishment of standardized regulations, implementation of safeguards and security measures,

Addressing that the Incident and Trafficking Database (ITDB) reported an increase in thefts in 2021 of radioactive material from 52% to 62% and all reports are voluntary,

Expressing concern regarding the lack of training programs for transporters and workers frequently in contact with radioactive materials,

1. *Suggests* that every Member State requests an IRRS review on their methods of transporting nuclear and radiological material and transparently communicate the results to all Member States which could be impacted in the event of unstable transportation infrastructure;

2. *Approves* of Poland's commitment to ensuring safe transportation of radioactive materials to safe disposal sites to limit any threat of damage that may come from improper transportation and disposal;

3. *Suggests* organizing the Conscious Transportation of Radioactive Material Conference (CTRMC) to connect experts, Member States, and stakeholders to discuss ways to safely transport radioactive materials within fragile countries, facilitated by using data from the NTI Nuclear Security Index given their work in monitoring nuclear terrorism and funded by the IAEA;

4. *Suggests* the collaboration of experts and Member States through an online panel that can be an outlet by which these cooperative actors can share information on how to take action against the illicit and unauthorized trafficking of radioactive materials;

5. *Encouraging* enhanced internal regulations regarding the transport of radioactive materials and the creation or updating of domestic regulatory bodies to better enforce these standards reducing the risk of accidents involving the transport of hazardous materials;

6. *Welcomes* the creation of the Radiological Material Theft Investigation Task Force (RMTIT) to investigate the illicit trafficking of radiological materials by receiving implementation through the Security Council and receiving funding from the United Nations General Assembly;

7. *Suggests* the creation of a committee of experts with the aim to help the *Convention on the Physical Protection of Nuclear Material (CPPNM)* as to fight against trafficking of nuclear material as to review the CPPNM's current mechanisms and security measures, identify areas of improvement and making recommendations to enhance security measures to counteract theft and trafficking of nuclear material and *recommends* fellow Member States to adopt frameworks similar to the International Carriage of Dangerous Goods by Road (ADR);

8. *Recommends* the implementation of increases in security that would be the locking down of nuclear transportation in case of accident, vehicle breaking down, and tampering with the vehicle or its security will be unlocked by the nuclear facility that their nuclear materials package was shipped from and send a response to local police once this mode is activated;

9. *Recommends* all willing and able Member States to compose a system that involves better radioactive transportation standards and regulations through promoting the *Convention on the Physical Protection of Nuclear Material* and *e*stablishing yearly training for all individuals transporting nuclear material;

10. *Suggests* the creation of a committee of experts with the aim to help the *Convention on the Physical Protection of Nuclear Material (CPPNM)* as to fight against trafficking of nuclear material as to a) review the CPPNM's current mechanisms and security measures, b) Identify areas of improvement, and c) make recommendations to enhance security measures to counteract theft and trafficking of nuclear material;

11. *Encourages* all Member States to participate in a Missing Nuclear Material Conference (MNMC), where Member States share information, progress, and monitoring information on areas where the material is presumed to be missing;

12. *Requests* the expansion of the Regulation Concerning the International Carriage of Dangerous Goods by Rail (RID) to include all Middle Eastern and African Nations not currently included in the framework;

13. *Recommends* the expansion of the Early Warning Notification System (EENS) to consider the impact of external events such as earthquakes, hurricanes, tsunamis, volcano eruptions, river and coastal flooding and wildfires during the transportation of nuclear material by enhancing the interconnection and intercommunication through novel dialogue between the Incident Emergency Centre (IEC), the External Event Safety Section (EESS) and those involved in the safe transport of nuclear materials including state organizations, private organizations and individuals;

14. *Encourages* the use of Application Programming Interfaces (APIS) developed by the University of Hawaii's Pacific Disaster Center and Tenefit to provide customized data interfaces that focus specifically on the impact of hazards on nuclear transport;

15. *Further encourages* Member States to distribute certifications for handling radioactive material only after participating in trainings hosted by the IAEA;

16. *Desires* that the IAEA proposes requirements for Member States transporting nuclear materials to have clear markings on their transport vehicles to reduce thefts;

17. *Invites* radioactive material exporting Member States to regulate the sale of their radioactive elements for peaceful non-weapon purposes;

18. *Further invites* Member States to coordinate with regional non-governmental organizations and the IAEA to participate in training for professionals in the nuclear industry to exchange best practices for safe and secure transport of nuclear and radioactive materials.

19. *Recommends* the IAEA update international nuclear security guidelines to incorporate the United Nations Office of Drugs and Crimes' Nuclear Smuggling Detection and Deterrence Program (NSDD) to incorporate:

    a. Regional training exercises and simulations;

    b. Provide education to security officials;

    c. Promote radiation detection system implementation into security vehicles to increase protection of nuclear material during transportation;

20. *Advises* expanding IAEA's Facilitation of Safe and Secure Trade Using Nuclear Detection Technology, which provides Member States to install radiation portal monitors all cross-national

borders, with the usage of nuclear detection technology with education training and enhanced detection of illicit trafficking and commercial fraud;

21. *Urges* the Secretariat to authorize a panel of experts experienced in nuclear security that will research how to establish best guidelines on what sensor technology should be incorporated into vehicles transporting nuclear or radioactive material;

22. *Encourages* Member States' participation in the IAEA's Next Generation Surveillance (NGS) Program, which uses remote surveillance devices like cameras, digital systems, IAEA safeguards, monitoring and planning to ensure the safe and secure transport of nuclear and radioactive material.

23. *Urges* Member States to optimize channels of communication and transportation for the sake of creating nuclear energy sectors in underdeveloped Member States;

24. *Suggests* the creation of the Sustainable and Universal Practices Program Of Radioactive Transport (SUPPORT), in an effort to promote the harmonization of regulation on sustainable, safe and secure transportation of radioactive materials between Member States, through a voluntary education program for workers in radioactive transport in all Member States:

    a. Executed by regional (including for non-Member States) teams of experts consisting of representatives from the IAEA, ICAO, WNA and IMO, that are well informed on international regulations, in order to execute this program and provide participating firms with internationally recognized certifications;

    b. Which will be funded by the Technical Cooperation Fund (TCF);

25. *Advises* the use of biometrics to create more security in the transportation of radioactive goods;

26. *Recommends* Member States to implement fines for companies in cases where radioactive materials is left unattended during transport;

27. *Encourages* the adoption of PST1A-6 containers for low level waste for its improved efficiency and safety compared to IAEA standard type A containers;

28. *Urges* Member States to collaborate in the development and implementation of a Global Radioactive Material Tracking System that employs advanced geofencing technology to establish and monitor predefined transport corridors for radioactive materials, and utilizes predictive analytics;

29. *Further recommends* regional blocs to form the Coalition for Radioactive Transport in an effort to improve radioactive transport to provide emphasis on Middle Eastern and African nations who are developing in radioactive and nuclear program and not have intervention of third parties such as the Peace Corps, in an effort to promote national sovereignty.