



CHAPTER FIVE

THE INTERNATIONAL ATOMIC ENERGY AGENCY

PURVIEW OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

The IAEA was created in 1957 in response to the deep fears and expectations resulting from the discovery of nuclear energy. The IAEA Statute, which 81 States unanimously approved in October 1956, outlines the three pillars of the Agency's work: nuclear verification and security, safety, and technology transfer. The simulation of the International Atomic Energy Agency will be a special session. Each delegation may place one representative on this body. For more information please see page 9 in the AMUN Rules and Procedures handbook. For the purposes of this simulation, all UN Member States will be considered to have a seat in the special session. In order to facilitate a simulation in four days, the special session will focus on two issues: Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety and Application of IAEA safeguards in the Middle East. The Agency will write resolutions to cover these issues.

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MEASURES TO STRENGTHEN INTERNATIONAL COOPERATION IN NUCLEAR, RADIATION, TRANSPORT AND WASTE SAFETY

Since the discovery of the potential of nuclear fission in 1934, the question of nuclear safety has been at the forefront of regional and international debate. The international community created the International Atomic Energy Agency in 1957, hoping to bridge the gap between use of nuclear power as either a tool or a weapon. As States began expanding their nuclear programs, spurred in part by the Cold War, safety became increasingly important. The risks inherent in nuclear power are high. Environmental and water contamination, high-level or prolonged human exposure to radiation and the theft of nuclear materials by non-state actors all consistently threaten the legitimate and peaceful use of nuclear materials and hasten the IAEA's measures to strengthen international cooperation in the areas of nuclear, radiation, transportation and waste safety.

While the international community has made strides in nuclear safety, work remains to be done regarding radiation, transportation and waste safety. With more States and non-state actors interested in procuring nuclear capabilities, either for peaceful or non-peaceful means, the safe transportation of nuclear materials is paramount. Though liability is now more clearly outlined, the potential of a nuclear transportation incident touches on both human and environmental concerns. Uranium, which plays a large role in nuclear reactors and the creation of nuclear power, is both chemically toxic as well as radioactive during the uranium enrichment process. Most waste produced by nuclear energy presents a low risk profile to humans and the environment, but storage, especially of high-level waste, is a monumental effort that risks environmental contamination and costs States money, land and other resources to maintain.

Prior to 1960, there was no convention on liability for nuclear waste incidents, leading to ambiguities in State responsibility. States with nuclear incidents had no clear standard for safety, incident response or

victim compensation. In 1960, the international community negotiated the Paris Convention on Third Party Liability in the Field of Nuclear Energy, addressing a major area of nuclear safety. The Convention, which entered into force in 1968, set standards for liability and compensation for damage caused by accidents that take place during the production of nuclear energy. Other strides made toward outlining nuclear safety and liability also include the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the Convention on Supplementary Compensation for Nuclear Damage (CSC). Together, these aim to increase the amount of compensation available through public funds to be made available by the Contracting Parties. This was a promising first step for taking responsibility in the event of a nuclear safety incident, though only 40 States are party to the CSC and only 16 States are party to the Paris Convention on Third Party Liability in the Field of Nuclear Energy. Additional protocols to the Paris Convention were added in 1964 and 1982, with increasingly fewer signatories. The most recent additional protocol, added in 2004, only has two Party States.

Some of the solutions to the problems of nuclear, radiation, transport and waste safety stem from past problems. The 1986 Chernobyl disaster set the tone and focus for the following decades. The United Nations increased measures taken to strengthen international cooperation in nuclear safety and radiological protection in response to the Chernobyl event. They also requested that States share nuclear safety related information to prevent another Chernobyl-like disaster from happening. These efforts led to increased safety measures, decreasing the likelihood of disasters associated with poor construction standards and lax safety protocols.

By 1998, incidents with abandoned, lost or stolen radioactive materials had caused enough concern to warrant the Code of Conduct on the Safety and Security of Radioactive Sources, created as a reaction to the events of September 11, 2001 in the United States and a conference held in Buenos Aires in 2000. The increased threat of non-state actors was at the forefront of the conversation. The Board of Governors approved the Code of Conduct in 2003. The Code of Conduct provided additional guidance for State standards and domestic laws pertaining to radiation and peaceful nuclear uses.

The IAEA launched the Global Nuclear Safety and Security Network (GNSSN) in 2007 as a "virtual community" designed to assist the promulgation of nuclear safety standards and expertise at the national, regional and global levels. The number of disparate academic institutions, national laboratories, industry groups and regional bodies involved in nuclear technology requires an umbrella organization to assist in the coordination of information sharing, which is as valuable as it is logistically challenging, and the GNSSN is instrumental in achieving the core goal to "... foster the exchange of scientific and technical information on peaceful uses of atomic energy" as described in Article III of the Statute of the IAEA. While successful coordination of this scope speaks to the dedication of the Member States of the IAEA, it also illustrates the crucial role of digital-age technology in disseminating information at truly global scales.



Much of the current work of the IAEA is focused on lessons learned from the Fukushima Daiichi accident. A comprehensive June 2015 report on the Fukushima Daiichi accident underscored the importance of creating a global framework for mitigating the vulnerability of nuclear facilities to external events. An unresolved challenge identified during the Fukushima Daiichi accident is the need to effectively coordinate and disseminate accurate information to the public during a nuclear emergency. Additionally, the IAEA has prepared an Action Plan on Nuclear Safety. The Action Plan aims to improve international nuclear safety through cooperation and information sharing between national authorities and technical experts. Under the Action Plan, the IAEA has facilitated peer reviews and capacity building programs for Member States planning to embark on a nuclear power program. The IAEA has focused on improving emergency preparedness and response in addition to ongoing technical work on developing standards and training related to nuclear safety to prevent accidents. The implementation of the Action Plan has proven to be logistically challenging, particularly in light of some Member States' reluctance to implement past standards, such as the CSC and Vienna Convention.

One area needing more attention is the transportation of radioactive materials by land, air and sea. While there has not been a major accident during the transport of radioactive material outside the national boundaries of an IAEA Member State, the growing demand for radioactive materials, as well as increased development of nuclear power programs, is likely to increase the volume of radioactive materials shipped internationally. Ensuring that the country responsible for transporting radioactive materials, as well as countries near and through which such materials move during shipment, are informed and prepared to respond in the event of an accident poses challenges for IAEA coordination. This is a primary IAEA concern, especially when considering those Member States not party to all of the past conventions or those that fail to fully comply with the Code of Conduct

Few industries have the level of interwoven policy and scientific needs seen in the nuclear arena, requiring the IAEA to take a multifaceted approach in achieving its mandate. Thus, in addition to being a group of technical experts in nuclear technology and safety, the IAEA must tackle policy questions. One of these challenges is that nuclear accidents and damage require significant allocations of resources in order to resolve, and radiation contamination has no conception of borders, making an incident almost inevitably an international concern. Additionally, the rise of non-state actors interested in radioactive materials increases the need for more strict safety procedures, particularly where transportation is concerned. Finally, the IAEA faces large push-back from its Members regarding regulations and cooperation.

Questions to consider from your government's perspective on this issue include the following:

- In the event of a future nuclear emergency, should the IAEA provide public updates when the impact of the accident spreads across State boundaries? What role should the IAEA take in informing the public in the event of a nuclear accident in a non-Member State?
- How can the IAEA work with other UN bodies to strengthen international cooperation or address these specific issues?
- Are there other safety areas that need to be focused or expanded on? If so, what role does the IAEA play in identifying those?

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APPLICATION OF IAEA SAFEGUARDS IN THE MIDDLE EAST

The use of nuclear technology is a complex policy issue, particularly in the Middle East, where nuclear technology could easily become a flashpoint amid regional conflict and instability. The IAEA endeavors to balance the dangers presented by nuclear weapons development with the interest in peaceful development and proliferation of nuclear energy technology. The equipment needed for peaceful uses is also often the same equipment needed to weaponize nuclear material, typically referred to as dual-use equipment or technology. Member States' reluctance to comply with IAEA inspections and regulations, States' desires to have nuclear weapons capability and the lack of a nuclear-weapon-free



zone in the region, all further complicate nuclear safety in the Middle East.

The establishment of strong frameworks and regimes to prevent nuclear weapons, such as regional nuclear-weapon-free zones, has historically been a major policy objective. Nuclear-weapon-free zone initiatives aim to implement the goals laid out in frameworks, such as the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), by establishing regional agreements for nuclear demilitarization, including banning the creation, testing, acquisition or development of any form of nuclear weaponry, while still permitting peaceful uses of nuclear materials, such as energy and medical applications. Nuclear-weapon-free zones exist in Latin America, Africa, East Asia, Central Asia, the Caribbean and the South Pacific. Many regions have seen observable successes in furthering nonproliferation and disarmament after implementing nuclear-weapon-free zones. Furthermore, such initiatives have enjoyed relative success in encouraging cooperation between already existing regional security infrastructures and more globally focused initiatives established by the governing bodies of the United Nations.

Establishing a nuclear-weapon-free zone in the Middle East has been a highly debated and contentious topic for many years. In 1974, the IAEA requested that the Director General engage in further discussions with Middle Eastern States to encourage the adoption of IAEA nuclear safeguards in the region, which would open the door to establishing a nuclear-weapon-free zone. There have been many attempts to establish a nuclear-weapon-free zone in the Middle East, yet no treaty has been adopted after almost forty years of discussion.

Through the 1980's and 1990's, negotiations struggled for many reasons, including attempts to incorporate weapons other than nuclear weapons in treaty terms; the refusal of States to join the NPT and its subsequent protocols; general noncompliance with IAEA safeguards and enforcement protocols; prolonged negotiations and rescheduling issues; and general distrust between Member States. Resolutions in the 1980s reiterated the need for full regional compliance with the NPT and the establishment of a nuclear-weapon-free zone. The 1995 Nuclear Non-Proliferation Treaty Review Conference noted the same, remarking that Israel's reluctance to sign the NPT had led to a marked increase in State interest in obtaining nuclear capability. There are similar concerns over Iran's compliance with the NPT. In 2010, following up on a number of resolutions and recommendations, the General Assembly, in response to IAEA requests, called for a conference on nuclear weapons and a number of other security-related issues in the Middle East. The conference was scheduled for 2012, but was postponed and has yet to convene. The Secretary-General later released an independent report on the issue.

In 2013, the General Assembly directed the Secretary-General to report on how a regional treaty and nuclear-weapon-free zone could be implemented. The General Assembly also highlighted the fact that Israel is the only State in the region not party to the NPT. The most recent resolutions adopted by the UN General Assembly addressed establishment of a nuclear-weapon-free zone in the region of the Middle East and included the topic on the provisional agenda for the seventy-first Session of the General Assembly. Most recently, UN Member States have taken to organizing and participating in regularly scheduled review conferences of existing frameworks such as the NPT; the next review of the NPT is slated for 2020. The most recent NPT review conference, held in 2015, resulted in some progress. The progress, laid out in the final

report from the 2015 Review Conference, strongly encourages noncompliant States to fulfill their obligations under the NPT and asserts that the IAEA remains the legitimate authority in reporting issues with the existing frameworks. The report also notes that States on the IAEA, and in general, need to seek diplomatic resolution to issues of noncompliance with the established IAEA safeguards and to continue productive discussions in preparation for the conference scheduled for 2020. In the interest of improving and strengthening such safeguards, States should also look to expand the scope of the existing agreements.

Safeguards for the Middle East are increasingly urgent. Regional instability and the presence of terrorist organizations make securing nuclear weapons and general nuclear disarmament extremely important. The IAEA must think of ways that ensure openness and that safeguard against nuclear proliferation and weapon development, while maintaining respect for State sovereignty and States' rights to explore the peaceful applications of nuclear technology. If concerns about equity, trust and compliance are not addressed or clarified, accepting safeguards and adopting a nuclear-weapon-free zone will be a greater challenge for the Middle East.

Questions to consider from your government's perspective on this issue include the following:

- What steps can the international community take to reassure Middle East States that the efforts to create a nuclear-weapon-free zone will not create roadblocks to the development of peaceful uses of nuclear technology?
- What preconditions need to be identified and agreed upon prior to engaging all players in the region in successful nuclear-weapon-free zone treaty negotiations in the Middle East?
- How can the IAEA help resolve the concerns about compliance and nuclear-weapon-free zone enforceability?

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