



International Atomic Energy Agency

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Letter from the Secretariat

Delegates,

Welcome to the background guides for MiniMUN 2017! Whether it is your first or third Model United Nations conference, it is our hope at MiniMUN that you will continue to further expand your knowledge of MUN, world issues, and the UN itself.

The purpose of this background guide is to introduce the committee and the topic, as well as help you write your position paper. Details on position paper and submission are available under the Position Paper tab on our website:

<http://chsminimun.weebly.com/position-papers.html>

The topics and committees were chosen to reflect the problems that our world leaders face. As a delegate, you will be stepping into the role of world leaders. You will take on perspectives different from your own, and you will push for what your country believes to be right.

We have diligently worked to make this year's topics even more captivating and advanced than previous years. If at any time, you are having trouble understanding the background guide, finding information on the topic, or writing your position paper, please contact your chairs for help. They are more than willing to assist you to make MiniMUN a productive and engaging conference!

We are very excited to see you at MiniMUN 2017!

Rogan Munro-Foulis and Christine Pang

Secretary-General and Director-General, MiniMUN 2017



Description of Committee

With the evolution of nuclear technology that happened in 1954; a proposal directed to the General Assembly was made by the United States. This proposal was regarding the creation of an international agency in order for it to take control of all fissile materials used for nuclear power or nuclear weapons. Three years later; the International Atomic Energy Agency (IAEA) was created. The IAEA is an international agency concerned by any application of nuclear technology whether it's a weapon or a useful tool; it would establish a "nuclear bank". There are three main focus areas of the IAEA: Safety and Security; Science and Technology; and Safeguards and Verification. The IAEA is not directly controlled by the United Nations but reports to both the Security Council and the UN general assembly. It consists of three main bodies which are the Board of Governors, the General Conference, and the Secretariat. The IAEA currently has 168 member states. Signing and ratifying the Nuclear Nonproliferation treaty (NPT) is not a condition of the membership of the IAEA. Overall, the IAEA has three main missions. First of all, encouraging its member states to apply nuclear energy peacefully. Second of all, supervising the use of nuclear energy to prohibit its use in any military purpose. Third of all, it enhances the standards for nuclear safety.

IAEA: <https://www.iaea.org/>

Ensuring Safe Radioactive Waste Management

Introduction

The International Atomic Energy Agency (IAEA), for many years, has been recognizing the dangers of nuclear radioactivity and nuclear wastes. Managing nuclear waste is an incredibly important process that requires highly-trained, experienced workers. They must make sure that they make no mistakes or errors, or else it could result in a disaster. Nuclear waste comes in different shapes and different forms. Radioactive wastes are divided to four main categories. The first is exempt waste & very low level waste. Exempt waste and very low level waste (VLLW) contains substances whose radioactivity is at a level which is not considered harmful to people or the surrounding environment. The second is low-level waste. Low-level waste (LLW) is generated from hospitals and industries, as well as the nuclear fuel cycle. It includes paper, rags, tools, clothing, filters, etc., which contain small amounts of mostly short-lived radioactivity. The third is intermediate-level waste. Intermediate-level waste (ILW) contains higher amounts of radioactivity and some requires shielding (reducing the intensity of the radioactivity). It typically includes resins, chemical sludges, parts of nuclear fuel systems, as well as contaminated materials from reactor decommissioning (ending the use of a nuclear reactor). The fourth and last is high-level waste. High-level waste (HLW) arises from the 'burning' of uranium fuel in a nuclear reactor. HLW contains the products and elements derived from uranium which is generated in the reactor core.

Possible International Waste Repository

There are around 50 countries that are concerned with this issue. Each of those 50 countries is legally responsible for its' own wastes. Thus, those countries are responsible for disposing their own wastes. High-level nuclear wastes are released from nuclear reactors which, in 31 countries, are used to generate electricity. There are no requirements on uranium suppliers for the way they dispose of radioactive waste, besides the ones involved in safeguards procedures. Any international waste repository has implications under the Nuclear Non-Proliferation Treaty (NPT). This would mean that all countries dispose their radioactive waste in the same location. The trustworthiness and status of the host country is highly important to the project's acceptability to NPT countries. They comprise virtually every country except India, Pakistan, Israel and North Korea. Also, the international treaty produced by the IAEA and signed by most nations of the world in 1997 covering the management and disposal of used fuel and high-level wastes requires that the facility or system that holds the waste meets the highest national and international standards. Even countries such as Australia with no nuclear power have need for secure disposal of long-lived radioactive wastes from their research reactors. There have been international repositories (place or building where things are stored) addressing this issue. In November 2003, Doctor Mohamed ElBaradei, Director-General of the UN's International Atomic Energy Agency (IAEA), said to the UN General Assembly: "We should consider multinational approaches to the management and disposal of spent fuel and

radioactive waste. Over 50 countries currently have spent fuel stored in temporary locations, awaiting reprocessing or disposal.

Advantages of an International Waste Repository

Not all countries have the appropriate geological (having to do with the earth and landscape) conditions for such disposal - and, for many countries with small nuclear programs, the financial and human resources required for the construction and operation of a geological disposal facility are daunting.” In an October article he included research reactors as a part of this suggestion and concluded that “considerable advantages - in cost, safety, security and non-proliferation - would be gained from international co-operation in these stages of the nuclear fuel cycle.” Nearly 25 years earlier, in 1980, the IAEA-sponsored International Nuclear Fuel Cycle Evaluation (INFCE) waste management and disposal report had firmly recommended that proposals “for establishing multinational and international repositories should be elaborated” due to their non-proliferation advantages. “Centralized facilities for disposal of spent fuel and/or vitrified high-level wastes would reduce the diversion risk” and be more economical. Diversion is the illegal movement of radioactive material to a location that is different from its intended destination.

South Australian Waste Repository

Moreover, the most recent proposal that addressed the topic to find a suitable solution was the South Australian proposal. A major recommendation was that a facility for the disposal of international used nuclear fuel and intermediate level

waste should be established. It found that the state “has the necessary attributes and capabilities to develop a world-class waste disposal facility, and to do so safely.”

Based on a “cautious and conservative approach”, from calculations of the amount of used fuel and potential global interest, the commission determined that such a facility could generate more than AUD 100 billion in profit (including a reserve fund of AUD 32 billion for facility closure and ongoing monitoring) over the 120-year life of the project. The World Nuclear Association said that the report had “fundamentally changed the nature of the global nuclear waste discourse,” and a multinational waste facility based in South Australia would provide a beneficial option for countries operating nuclear facilities today. It would be a “viable alternative” to national projects. Such a large multinational waste storage facility would be a world first and should offer advantages in terms of siting and economics when compared to storage on a national level.

IAEA Security Plan for 2014-2017

The International Atomic Energy Agency had taken several measures to make sure that global nuclear security would be strengthened. In addition, every two years a nuclear security summit takes place to enable countries to explain their vision towards national and global nuclear security. In addition, the IAEA has put a security plan known as IAEA Security Plan for 2014-2017. The goal of the Nuclear Security Plan for 2014–2017 is to strengthen global efforts to achieve effective security wherever nuclear and other radioactive material is in use, storage and/or transport, and of associated buildings and facilities by supporting countries, upon

request, their efforts to meet their national responsibilities and international duties, to reduce risks and to respond appropriately to threats. In order to fulfill the goals of the plan, the Agency will firstly, help states, upon request, in their efforts to establish effective and sustainable national nuclear security regimes. Secondly, serve as the focal point for strengthening international cooperation, and for coordination of nuclear security assistance given through regional and bilateral programs and other international initiatives. Thirdly, enhance global nuclear security efforts by completing international guidance in the Nuclear Security Series and, upon request, supporting its use by countries. Fourthly, encourage and assist states to adhere to relevant international documents and support states, upon request, in their efforts to adopt national laws. Fifthly, build on the progress made during the implementation of the first three Nuclear Security Plans to help states sustain and further improve their national nuclear security regimes.

1982 Nuclear Waste Policy Act

The United States of America started a Nuclear Waste Policy Act in 1982. The Nuclear Waste Policy Act of 1982 is a United States federal law which established a complete national program for the safe, permanent disposal of highly radioactive wastes. The Nuclear Waste Policy Act of 1982 created a timetable and procedure for establishing a permanent, underground repository for high-level radioactive waste by the mid-1990s, and provided for some temporary federal storage of waste, including spent fuel from civilian nuclear reactors. State governments were allowed to veto a national government decision to place a waste repository within their

borders, and the veto would stand unless both houses of Congress voted to override it. The Act also called for developing plans by 1985 to build monitored retrievable storage (MRS) facilities, where wastes could be kept for 50 to 100 years or more and then be removed for permanent disposal or for reprocessing.

The European Union's Plan

The European Union agreed to bury nuclear waste in secure bunkers to prevent the spread of nuclear radioactivity. A statement by the EU Council of Ministers said that the plans would need to cover: the management of fuel and waste, licensing, control and inspections, enforcement, public information, consultation, financing and the establishment of independent regulatory authorities. The IAEA would definitely support any proposal or agreement that would ensure in state and global nuclear security.

Questions to Consider

1. What is the delegation's definition of safe nuclear disposal management?
2. Should an international waste repository be established or should nuclear waste storage be managed by each individual country?
3. If the committee is to suggest the establishment of an international waste repository, where should it be located? Think about the geological, locational, social, and economic conditions of possible locations. Also consider the economic profit that a waste repository would bring to a country.

