GA2-4B-29

**Committee on the Environment 4B**
Sponsors: France, Qatar, United Kingdom, Sweden, Brazil, Azerbaijan, Mexico, Ukraine
Signatories:
Topic: “Addressing radioactive pollution and crafting potential solutions”

THE GENERAL ASSEMBLY,

*Reminding* the committee that anthropogenic sources of radioactive pollution through nuclear testing and the use of nuclear power to produce energy release radiation into the environment, which can be of great detriment to living beings and the ecosystems which the world relies upon for services such as the purification of air, water, and the production of food,

*Alarmed by* the risk of oversaturation in current nuclear containment facilities designed to hold nuclear waste created as a byproduct during energy production,

*Emphasizing* the fact that the amount of radiation in the atmosphere does not decrease except through the passage of time, and that reducing the proliferation of radioactive pollution is paramount for human and ecosystem health,

*Recognizing* the positive impact of nuclear energy in combating climate change, as every year, nuclear-generated electricity prevents over 470 million metric tons of carbon dioxide from being emitted into the atmosphere due to energy produced that would otherwise come from fossil fuels, and the reliability of nuclear power as a power source when other renewable energies such as solar, wind, or hydropower is unavailable,

1. Urges member countries to cease carrying out atomic explosions in the atmosphere;
    a. Furthermore, dispose of all radioactive waste generated from previous experiments in such a way that does the least harm to the environment as delineated by the World Nuclear Association;

2. Encourages member countries to responsibly dispose of all radioactive waste generated from industrial sectors such as power production in specially built tanks and underground storage reservoirs;
    a. Supporting action taken to implement closed-loop cooling systems to eliminate the possibility of radiation leakage through coolant released into the environment;
        i. Low-level waste (LLW), defined as radioactive waste which has a radioactive content not exceeding four giga-becquerels per tonne (GBq/t) of alpha activity or 12 GBq/t beta-gamma activity, which is mostly generated from hospitals and industry, should be compacted or

incinerated, then stored on-site until the radiation levels are low enough to be disposed of as regular trash;

ii. Intermediate-level waste exceeds the boundaries set by LLW but do not reach the standards for High-level waste—ILW should be solidified in concrete or bitumen prior to disposal in containers of 500 liter stainless steel drums or $3m^3$ stainless steel boxes;

iii. Countries should work to reduce production of high-level waste (HLW) (defined as waste which is sufficiently radioactive for its decay heat ($>2kW/m^3$) to increase its temperature, and the temperature of its surroundings, significantly)—HLW that is produced can be reprocessed to be reused as fuel through the conversion of fertile U-238 to fissile plutonium, and waste that cannot be recycled should be vitrified (converted from liquid waste into solid, stable glass) and stored for at least 50 years before disposal in a deep, engineered geological repositories lined with clay or another impermeable material at least 250 m underground, away from any sensitive ecosystems, wetlands, or forests;

*3.* Calls for investment into nuclear power to develop even more sustainable nuclear energy production in the future;

a. Paid for by collective investment into the International Atomic Energy Agency, which will collaboratively develop fusion technology;

b. Subsidizes the design, construction, and operation of nuclear power plants in developing countries which will employ local workers and provide steady, sustainable power in historically underinvested-in regions of the world.