

## Republic of Cuba

### Positions for the International Atomic Energy Agency

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#### I. Strengthening the Security of Radiological Material Facilities

The Republic of Cuba recognizes the issues and concerns over security, as well as safety, with radiological facilities. While from a foreign policy perspective we address this issue most commonly as it ties to nuclear weapons and other military-related activities, there are innumerable facilities throughout the world that utilize radiological materials related to medicine, energy production, agriculture, and other industries. In many cases, the facilities that are used to protect and store these materials are inadequate, insufficient, and insecure, leaving them vulnerable to outsiders. Similarly, the technology exists to weaponized non-military nuclear material, particularly in the form of dirty bombs which, while not necessarily having the destructive capability of more advanced nuclear weaponry, certainly can cause loss of life and infrastructure at very high levels.

World leaders at the 2014 Nuclear Security Summit (NSS) recognized this growing threat and put an important spotlight on the issue of radiological security with a commitment from 23 countries to secure their most dangerous radiological sources by the end of 2016. A NTI Radiological Security Progress Report found that 22 of those countries had met their commitment or were on track to do so by the end of the year. In addition, over the past decade, progress has been made on better securing radiological sources through efforts by the IAEA and various national and international programs. Furthermore, a 2016 Belfer Center for Science and Technology report found that significant progress has been made securing vulnerable nuclear weapons-usable material—reducing the number of countries with these materials by more than half, securing scores of sites around the world, and much more. But the work is not done. There are new threats, and global attention to nuclear security may be waning. It is our duty as a body to find ways to better secure and protect these sorts of facilities.

Cuba has been working diligently with other Member States to address the issues surrounding radiological facilities and continues to develop measures for safety and security, and has plans to continue research to finalize an initiative that would address every concern and continue to help the fields of radiological and nuclear fields change and grow as necessary. In 2018, an IAEA team of experts concluded a 10-day mission to review Cuba's preparedness and response framework for nuclear and radiological emergencies. The Emergency Preparedness Review (EPREV), requested by the government, was carried out under an IAEA Technical Cooperation project aimed at strengthening the national infrastructure for radiation safety and protection in Cuba. The results of this review showed that Cuba engages in a number of good practices that go beyond minimum IAEA safety standards, including: (1) possessing and utilizing a comprehensive system that analyzes international events and disseminating them to all relevant organizations; (2) using a systematic approach for developing integrated and coordinated nuclear and radiological emergency plans before starting operation of a radiological facility; and (3) providing training for nuclear and radiological emergency preparedness in close cooperation with regulatory authorities in safety and security. The Cuban government intends to adopt an action plan to address the findings and to host a follow-up EPREV mission by 2021.

**Cuba urges** all Member States to adopt a preparedness plan that identifies stressors within radiological facilities to identify potential problems. Issues to discuss include: (1) maintaining tight control of nuclear weapons and components for those Member States that possess them; (2) reducing or eliminating the possibility of rogue actors acquiring fissionable material, including waste products, that could be utilized in the construction of an improvised nuclear device; (3) protecting nuclear power plants and research facilities, spent fuel rods, and spent storage facilities and transportation devices. **Cuba also recommends** the development, by the IAEA, of intensive training programs for those employed by nuclear facilities to teach them recognize security breaches and safety issues within their facilities. Finally, **Cuba implores** this body to work diligently on the development of a worldwide source tracking system. This, in essence, is a secure database that tracks the most risk-significant sources from manufacture or import through disposal or export of radiological materials. Ideally, this would include a licensing system for entering the receipt, transfer or disposal of sources into a secure database so the IAEA knows where the sources are. If implemented properly, this information also would help the IAEA respond during natural disasters such as floods or hurricanes.

#### II. The Role of Nuclear Energy in Sustainable Urbanization

The Republic of Cuba recognizes that the continued primary use of fossil fuels for energy generation will severely restrict Member States' abilities to reach many of the Sustainable Development Goals that have been set in place. With the global urban population expected to grow by around 1 billion by 2030, and an increasing proportion living in dense mega cities, the share of greenhouse gas emissions from such urban centers is expected to rise. As such, we must discuss alternative energy production methods, particularly as it relates to sustainable urban growth. The Intergovernmental Panel on Climate Change's (IPCC) 1.5° Celsius Special Report, released in October 2018, highlighted that limiting the temperature increase from pre-industrial times will require immediate reductions of greenhouse gas emissions. The report underlined that achieving rapid decarbonization of the global electricity sector will require, at first, the deployment of proven large capacity power technologies, such as nuclear power.

While Cuba understands the risks involved in the utilization of nuclear power, it deserves further discussion, and many leaders of this organization agree. According to IAEA Deputy Director Mikhail Chudakov, "with electricity demand expected to rise sharply in the coming years, this is undoubtedly where nuclear [energy] can come into play. The 2015 Paris Agreement and the recent IPCC Report underlines the immediate need for scaling up all clean, low-carbon technologies such as nuclear power. If nuclear power deployment doesn't expand in line with this scenario, the other technologies may not fill the gap--and Member States may not meet their climate targets." Similarly, David Shropshire, Head of IAEA's Planning and Economic Studies Section, said that given the various energy and environmental challenges facing megacities across the world, a range of solutions would be needed and nuclear power could well be one of the responses. In aggregate, advocates point to nuclear power's benefits of no air pollution, safe, reliable, and low-cost plant operations, and reduction in greenhouse gas emissions in the context of increasing global climate change.

In 2018 at the UN Climate Change Conference in Katowice, Poland, Member States discussed how nuclear power can be part of an integrated solution to provide low carbon energy for growing urban centers. Reliable access to energy in urban areas requires a transition to cost-effective, low-carbon ways of electricity generation, and this body must take into consideration the interaction of two important Sustainable Development Goals in this regard: (1) Goal 7--ensuring access to affordable, reliable, sustainable and modern energy for all; and (2) Goal 11--making cities and human settlements inclusive, safe, resilient and sustainable. **Cuba agrees** with these missions' conclusions, **and further emphasizes** that we focus on the use of smaller nuclear facilities rather than larger ones. It has been shown that with smaller plants, the rate of meltdowns drastically decrease, as everything is more confined and there is a lower risk of any leakage of nuclear waste materials.

Cuba has a strong history of advocating for and utilizing alternative fuel sources and putting this into practice, reducing dependence on fossil fuels for energy production. Unión Eléctrica, the state-owned power company, is engaged in active plans and future projects to produce electricity from different sources of renewable energy, including nuclear power. One important aspect of the plan is establishing "small nuclear zones" that produce enough energy to power individual towns and cities and potentially to ration or store excess energy in the event of natural disasters, localized power shortages, or power plant failures. Smaller-yield nuclear power plants can have fewer negative impacts in the event of meltdown, and perhaps more importantly, in the event of a shutdown as a result of these aforementioned circumstances, fewer people are affected and plants can "loan" power to each other due to excess generated at each individual sources.

**Cuba thus proposes** the creation of Nuclear Safe Zones (NSZs), which are smaller, more localized sources of nuclear power generation. **Cuba suggests** that either abandoned facilities might be re-activated to produce smaller yields of power for local use, or in the event of a lack of these existing facilities that new, smaller ones be created. Small reactors can be more beneficial and less harmful than large facilities with large reactors. Smaller facilities require a much smaller quantity of fissionable material, further increasing the safety of these plants. **Cuba urges Member States to also consider** the value of redundancy when generating nuclear power. Localized nuclear power production is ideal for the reasons given above; but giving each localized plant the ability to generate more energy than is immediately needed will allow there to be safety measures to reroute energy from other plants in the event of a localized shutdown. Towns and cities can grow and develop without needing to worry if there is going to be enough energy to operate. **Cuba understands** the concerns that many Member States have regarding re-invigorating nuclear energy as a widespread form of energy production; but Cuba also believes that this plan creates additional fail-safes that further minimize risk. Cuba looks forward to sharing its ideas with other members of this body.