

International Conference on Nuclear Security: Shaping the Future

ICONS 2024

Statement by IAEA Director General Rafael Mariano Grossi on the occasion of the International Conference on Nuclear Security 2024

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When we met the last time, at ICONS 2020, many of us could not have imagined the momentous change we would experience between then and today, change that would affect billions of people, international peace and security, and nuclear security. A global pandemic was in the making and a war - in Ukraine - for first time soon would be fought among the facilities of one of Europe's biggest nuclear power programmes.

Meanwhile, profound technological advances have been made. Assessing their impact on nuclear security is a crucial task. Artificial Intelligence, and unmanned vehicles pose both a threat to nuclear security and offer new tools with which to enhance it. In the nuclear field itself, Small Modular Reactors promise new opportunities for applications such as desalination and power brought to remote communities via barge, but also require us to consider new security elements.

The use of nuclear science and technology, often facilitated by the IAEA, has come on in leaps and bounds. Climate change and the drive for energy security are fuelling a desire for nuclear power. At this past Conference of the Parties to the UN Framework Convention on Climate Change, COP28, world leaders – those whose states use nuclear power and those

whose do not - for the first time in nearly 30 years of COP meetings agreed nuclear power must be part of the transition to net zero. More than 20 countries have signed a pledge towards tripling nuclear power capacity and at the IAEA's Nuclear Energy Summit in March heads of state agreed on the urgent need for conducive financial conditions.

Nuclear security is relevant throughout all the steps of the nuclear fuel cycle and is part of the social contract that underpins the existence and growth of nuclear power. Nuclear power programmes require national nuclear security threat assessments and “security by design”. Nurturing relevant research and a strong security culture are key, not only in countries with NPPs.

The use of life-saving and life-affirming applications of nuclear science and technology is growing, from cancer patients gaining access to radiotherapy to farmers benefiting from new crop varieties developed with the help of irradiation. IAEA initiative such as Rays of Hope: Cancer care for all; Nutec Plastics; Zoonotic Disease Integrated Action (ZODIAC); and Atoms4Food are key vehicles facilitating wider access.

All these opportunities to use nuclear and radioactive material depend on a strong and adaptive global nuclear security regime. For countries new to using nuclear and radioactive material, this means building up legal infrastructure, practices and culture that bolster nuclear security. Nationally and across borders, collaboration and laser-focused vigilance

are key to preventing groups with malicious intent from using nuclear and radioactive material to cause panic and harm.

The threats to nuclear and other radioactive material and associated facilities are real and varied. The international nuclear security threat landscape keeps evolving. Today, anyone can type a few words into a computer and generative AI can create images of nuclear Armageddon, meaning it is now possible to spread panic about radiation fallout without a nuclear device. Risk scenarios include theft of nuclear and other radioactive material for use in improvised devices and sabotage at nuclear installations or during transport of nuclear and radioactive material. The risk of cyber-attacks requires the implementation of computer security programmes by those who use nuclear power and those who don't. Risks come from outsiders and from those within the fold who are disgruntled or have been corrupted.

Nuclear security is the national responsibility of individual states, but it also benefits enormously from close collaboration and the enabling role of the IAEA. ICONS, which started in 2013, has been *the* place for ministers, policymakers, senior officials, and experts to gather to assess current priorities, prepare for new challenges, and engage in scenario-based policy discussions. ICONS 2024, presided over by the co-presidents, HE Tim Watts, Assistant Minister for Foreign Affairs of Australia and HE Sungat Yessimkhanov, Vice-Minister of Energy of the Republic of Kazakhstan, covers the themes of policy, law and regulation; technology

and infrastructure for prevention, detection and response; capacity building; and cross-cutting areas, such as the interface between nuclear security and nuclear safety. ICONS is the most important high-level international meeting on nuclear security. At this time of heightened tensions, it is imperative that there remains a unity of purpose and that nuclear security does not become a political football.

This year marks the 10-year anniversary of the IAEA's Division of Nuclear Security. The IAEA is at the forefront of adapting nuclear security to new challenges, including war. The seven indispensable pillars for ensuring nuclear safety and security have broad international support. They have brought crucial clarity at a time of war and are testament to the adaptiveness of the IAEA and the security regime.

Those seven pillars are backed up by an enormous ongoing effort by the IAEA to support Ukraine, including through the continuous presence of IAEA experts at all of Ukraine's nuclear power plants, including Zaporizhzhya NPP on the front lines of the war. When there were allegations of nuclear security breaches, the IAEA was there to investigate with impartiality and science. We set the facts straight that no nuclear material had been diverted, cutting through the fog of war, and diffusing a tense situation.

Not all our efforts require quite as much courage as our experts have shown in Ukraine, nor do they make international headlines. But every

day, the IAEA – the Secretariat and the Member States – work together fastidiously to underpin nuclear security, never resting, always learning.

Radioactive sources are extensively used in many domains, including medicine, industry, agriculture and research. An incident in one State can have far-reaching consequences for others, so security for one is security for all. That means supporting States with no, or less developed nuclear security infrastructure makes everyone safer. That support, which often comes via the IAEA, includes making lawmakers aware of their responsibilities.

Nuclear Security requires the implementation of appropriate and robust legislative regulatory frameworks. In 2022, the first Conference of the Parties to the Amendment to the Convention on the Physical Protection of Nuclear Material (A/CPPNM) was held under the auspices of the IAEA. Reflecting the global importance of the legal framework and of nuclear security, parties managed to agree an outcome document and for the IAEA convene a subsequent conference. Since 2020, 14 new parties have joined the A/CPPNM bringing the total to 136. Five new Parties joined the CPPNM, bringing that total to 164. In addition to the A/CPPNM, political commitment to legally non-binding instruments, like the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary guidance, is a strong indication of radiation safety and nuclear security culture.

But legal frameworks are just the beginning. They must be implemented. The IAEA plays a central role in assisting its Members States so they are able to do that. Last year we inaugurated the most visible symbol of our collaboration: the Nuclear Security Training and Demonstration Centre (NSTDC). This first-of-its-kind space, made possible by 15 donors, is a cornerstone for capacity building amid the growing need for sophisticated hands-on nuclear security training using advanced, specialized equipment. The NSTDC is part of a wide range of services offered by the IAEA, including peer reviews, such as the International Physical Protection Advisory Service (IPPAS), of which there have now been more than 100, and Advisory Missions on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS), a service we launched in 2022. Our Incident and Trafficking Database (ITDB) now has 145 members and has enabled the reporting of more than 600 incidents in which nuclear or radioactive material went out of regulatory control. Almost 8,000 people have benefited from our training in nuclear security, and we continue to work very hard to remove barriers that prevent talent from entering the field. In March 2021, we launched the Women in Nuclear Security Initiative (WINSI) to support the achievement of gender equality in nuclear security. Meanwhile, the IAEA's Marie Skłodowska Curie Fellowship Programme financially supports women pursuing a master's degree in nuclear subjects and offers them internships, while our Lise Meitner offers women in the early and middle part of their career enriching opportunities within the field.

As the use of nuclear and other radioactive material around the world increases, more and more States are needing to increase their level of nuclear security. Nuclear security is as important as nuclear safety – we must put it on equal footing in terms of reliability of funding and the robustness of implementation.

At ICONS 2024 we are – as the name of the conference indicates - “shaping the future”, not only of nuclear security, but of the world our children will inherit. That is because nuclear security is about more than preventing nuclear terrorism. It is an enabler to providing, through nuclear science and technology, the clean energy; cutting-edge medicine; nutritious food and hope for a better tomorrow.