

The Convention on the Physical Protection of Nuclear Material and its 2005 Amendment

FIVE QUESTIONS



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IAEA Director General Rafael Mariano Grossi called for universal adherence to and full implementation of the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment during the virtual 'NuSec Talks: Security through Law' event, held at the 64th IAEA General Conference.

“Radiation technology plays a bigger part in our lives than most of us realise. We are probably most familiar with its use when we go to the dentist or for a medical check-up. But did you know that it is also used to treat some of the fabrics used to make our clothes? Or to make the non-stick pots and pans we use in the kitchen? Or to detect tiny cracks in the wings of aircraft that are invisible to the naked eye?

These are some of the innumerable ways in which nuclear science and technology improve the quality of our daily lives. On a larger scale, 31 countries are presently using nuclear power, which supplies over 10% of the world’s electricity and around a third of all low-carbon electricity.

Unfortunately, there is a risk that this remarkable technology could be misused for malicious purposes. A terrorist attack involving a dirty bomb – in which conventional explosives are combined with a nuclear or radioactive substance – could have catastrophic consequences. That is why we need to have a proper global framework in place to ensure that nuclear and other radioactive material does not fall into the wrong hands.

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It is therefore essential that all countries adhere to the amended Convention to help ensure that nuclear material throughout the world is properly protected against malicious acts by terrorists. The threat transcends international boundaries. An attack in one State could have serious consequences for its neighbours. Even countries with little or no nuclear material on their territory need to join the amended Convention to ensure that they are not unwittingly used for transit. The amended CPPNM will help to ensure that anyone involved in criminal acts involving nuclear material is denied safe haven and brought to justice. I appeal to all countries that have not yet done so: please adhere to the amended CPPNM as a matter of urgency.”

Rafael Mariano Grossi

Director General

International Atomic Energy Agency

Why is the international legal framework for nuclear security important?

Nuclear security focuses on the prevention and detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities or associated activities.

Many countries use nuclear science and technology to meet their development objectives in areas including energy, human health, food production, industry, water management, and environmental protection. Sustainability of these benefits depends upon ensuring that material is used in a safe and secure way. Despite the progress made around the world in securing nuclear and other radioactive material, countries continue to report incidents of theft, loss, illicit trafficking and other unauthorized activities involving these materials.

The consequences of malicious acts involving nuclear or other radioactive material would transcend boundaries and undermine the sustainable use of nuclear or other radioactive material for peaceful purposes. While responsibility for nuclear security of a State rests entirely with the State, the relevant international legal instruments provide the framework and foundation for States to work together to enhance nuclear security nationally, regionally and globally.

While no single international instrument addresses nuclear security in a comprehensive manner, the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment are the only international legally binding undertakings in the area of physical protection of nuclear material and nuclear facilities.

What are the benefits for States in joining the CPPNM and its Amendment?

Whether a country has an active nuclear power programme, or conducts limited nuclear activities, or only uses radioactive material, the CPPNM, as strengthened by its Amendment, is beneficial for all States, helping to reduce the likelihood of malicious acts involving nuclear material and/or facilities.

- It enhances the national security of a State by providing a strengthened international framework for combating nuclear terrorism and securing nuclear material.
- It facilitates international and regional cooperation, and assistance in this field.
- It provides the basis for ensuring that those perpetrating malicious acts involving nuclear material are held accountable and are denied safe haven.
- It harmonizes national approaches to preventing and responding to criminal and other unauthorized acts involving nuclear material and facilities, in the recognition that such acts perpetrated in one State would have consequences for others.
- Adherence to and full implementation of the CPPNM and its Amendment contribute to the fulfillment of a State's obligations under Security Council Resolution 1540.

Legal commitment, expressed through adherence to the CPPNM and its Amendment, to have and implement a physical protection regime for nuclear material and nuclear facilities, to criminalize acts involving nuclear material and facilities, and to cooperate and provide assistance strengthens nuclear security on a national, regional, and international levels.

What are the obligations under the CPPNM and its Amendment?

Upon becoming party to the CPPNM and its Amendment, Parties are required, inter alia

- **Physical protection:** To establish, implement and maintain a physical protection regime applicable to nuclear material and nuclear facilities under their jurisdiction, including a legislative and regulatory framework to govern physical protection; a competent authority responsible for its implementation; and other appropriate measures necessary for the physical protection of such material and facilities.
- **Criminalization:** To make punishable under their national laws and establish jurisdiction over certain offences, including a number of intentional unauthorized acts involving nuclear material; the threat to use nuclear material to cause harm; theft or robbery of nuclear material; smuggling of nuclear material; sabotage of nuclear facilities; as well as ancillary offences of attempting to commit such offences, organizing or directing or contributing to the commission of such offences.
- **International cooperation:** To institute new arrangements for cooperation, assistance and coordination, including designating Points of Contact for matters under the Convention; to exchange information with a view to protecting threatened nuclear material or recovering unlawfully taken nuclear material; to provide information to potentially affected States in the case of sabotage of nuclear material or a nuclear facility or credible threat thereof; and to cooperate and consult to obtain guidance on the design, maintenance and improvement of national systems of physical protection of nuclear material in international transport, and of national systems of physical protection of nuclear material in domestic use, storage and transport and of nuclear facilities.

	Physical protection	Offences	International cooperation
CPPNM	Nuclear material in international transport	<p>Intentional unauthorised acts involving nuclear material</p> <p>Threat to use nuclear material to cause harm</p> <p>Theft or robbery of nuclear material</p> <p>Ancillary offences (attempt to commit a listed offence and participation therein)</p>	<p>Cooperation and assistance in connection with criminal proceedings and physical protection systems</p> <p>Information exchange to protect or recover unlawfully taken material</p>
	in addition	in addition	in addition
Amendment	<p>Nuclear facilities and nuclear material in domestic use, storage and transport</p> <p>Physical protection regime (e.g. establishment of a legislative and regulatory framework, competent authority)</p>	<p>Smuggling of nuclear material</p> <p>Sabotage of nuclear facilities</p> <p>Coverage of 'substantial damage to the environment'</p> <p>New ancillary offences (organization or direction of others to commit a listed offence)</p>	<p>Expanded cooperation, assistance and information sharing in case of sabotage</p>

How do you adhere to and fully implement the CPPNM and its Amendment?


Part of it is the formal act of expressing consent to be bound by the CPPNM and its Amendment.

If a State is already a Party to the CPPNM, a State can deposit an instrument of ratification, acceptance, or approval of the Amendment with the IAEA. If not, the State must first accede to the CPPNM before joining the Amendment.

A State can also deposit a single instrument expressing both the consent to accede to the CPPNM and the consent to ratify, accept or approve the Amendment.

The Convention is also open for signature or accession by international organizations and regional organizations of an integration or other nature.

To fully implement the obligations under the CPPNM and its Amendment, a State Party has to enact implementing laws and regulations, and take other measures, to give effect to the CPPNM and its Amendment in the area of physical protection, criminalization and international cooperation. Parties are also obligated to inform the depositary of their laws and regulations giving effect to the Convention, which the depositary communicates periodically to all Parties.



How can we help?

With the aim of facilitating adherence to and effective implementation of the CPPNM and its Amendment, the IAEA provides legislative and technical assistance upon a State's request.

Assistance activities and resources include, but are not limited to:

- Development and implementation of Integrated Nuclear Security Support Plans (INSSP);
- Development of Nuclear Security Series guidance documents;
- Peer reviews and advisory services, such as the International Physical Protection Advisory Service (IPPAS) and International Nuclear Security Advisory Service (INSServ);
- International seminars, regional, and national workshops;
- Bilateral legislative assistance in drafting and reviewing implementing legislation;
- Awareness and training programmes;
- E-learning courses on nuclear security;
- *Handbook on Nuclear Law* and supplemental *Handbook on Nuclear Law: Implementing Legislation*;
- Information exchange through Incident and Trafficking Database (ITDB).

For more information, visit Division of Nuclear Security (<https://bit.ly/39FPn0v>) and the legislative assistance pages (<https://bit.ly/3cztj9G>) on the IAEA website.

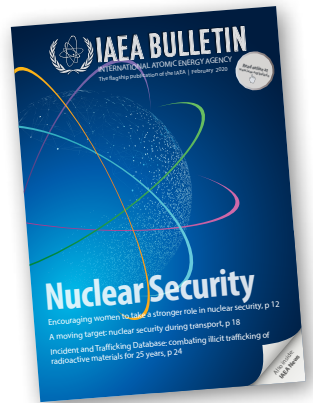
“Nuclear technology improves the lives of millions of people worldwide in energy, health care, industry, farming and many other areas. But nuclear and other radioactive material inevitably draws malevolent interest from terrorists and other criminals. It is vital that such material is protected from falling into the wrong hands. Only in this way can we ensure that the great benefits of nuclear technology for peace and development are sustainable The primary responsibility for nuclear security lies with each individual country. But the threat is global and requires a global response.”

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