

Part 3
**Radiation Safety:
Legal Aspect**



1. Legal regulation of relations in the field of nuclear and radiation safety of Ukraine and the EU: a comparative analysis. National legislation of Ukraine (Laws of Ukraine "On Use of Nuclear Power and Radiation Safety", "On Permit Activity in the Field of Nuclear Energy Utilization", "On Physical Protection of Nuclear Installations, Nuclear Materials, Radioactive Waste, Other Sources of Ionizing Radiation", "On Handling Radioactive Wastes", etc.). Safety requirements and the regulatory framework of the EU. EU regulators. The process of harmonization of the legislation of Ukraine and the EU in the field of regulation of the use of nuclear energy and radiation safety.
2. Means of state regulation of safety in the use of nuclear energy: registration, standardization, certification, licensing, control over radiation sources, including criteria for storage and disposal of waste; withdrawal; release from control.
3. Licensing of the use of nuclear energy: obligations of licensees, registrants, and employers; relationship between the regulator and regulated institutions; national inventory of radiation sources; import, export, transport. Safety assessment; compliance with safety requirements; application of sanctions.
4. Requirements for staff training. Licensing of activities of personnel and officials of the operating organization. Legal mechanism for preventing and avoiding emergencies at nuclear facilities. Legal mechanism for compensation for nuclear damage. Dissemination of information on the protection and safety of nuclear installations.



The key objective of nuclear legislation is to promote the safe use of nuclear energy, ensure nuclear and radiation safety, protect people from ionising radiation, and protect the environment from radioactive pollution by legal means.

Until 1990, there was **no legislative regulation** of the above relations.

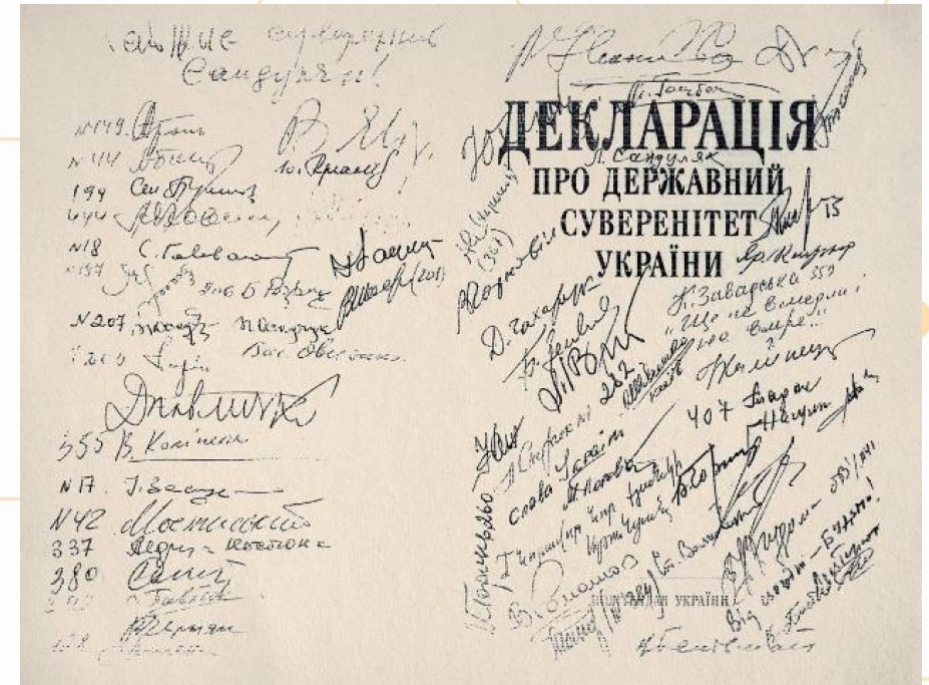
Declaration of State Sovereignty of Ukraine dated 16.07.1990:

“The Ukrainian SSR shall have its National Commission on Radiation Protection of the Population.

The Ukrainian SSR shall have the right to prohibit building and terminate the functioning of any enterprises, institutions, organisations and other objects, posing risks to environmental safety.

The Ukrainian SSR shall concern for the environmental safety of citizens, for the gene pool of the people, its young generation”.

(VII. Environmental Safety)



Concept of State Nuclear Safety Regulation and Nuclear Energy Management in Ukraine (approved by the resolution of the Verkhovna Rada of Ukraine dated 25.01.1994) defined the directions of *legislative regulation of the relevant relations*.

"The future legislation on the use of nuclear energy and radiation protection in Ukraine should include:

- *the legal regime for the extraction and use of uranium ores, and, accordingly, the legal regime for nuclear raw materials and the production of nuclear materials;*
- *legal regime of nuclear technology transfer;*
- *legal regime of licensing and state supervision over nuclear facilities;*
- *legal regime of licensing and state supervision over the use of radioactive substances and other sources of ionising radiation;*
- *legal regime for ensuring radiation protection during work related to the use of ionising radiation sources;*
- *legal regime of radioactive waste management;*
- *legal regime of civil liability, insurance and state compensation;*
- *legal institution of physical protection of nuclear material, nuclear facilities and radioactive waste;*
- *legal regime of accounting and control over storage and use of nuclear material and ionising radiation sources;*
- *the institution of criminal liability for violation of nuclear legislation;*
- *legal regime of transportation of radioactive substances".*



National legislation in the field of nuclear and radiation safety

Today, Ukraine has a generally established regulatory framework governing relations related to nuclear and radiation safety:

- ✓ [On Use of Nuclear Power and Radiation Safety](#): Law of Ukraine dated 08.02.1995
- ✓ [On Handling Radioactive Wastes](#): Law of Ukraine dated 30.06.1995
- ✓ [On Mining and Processing of Uranium Ores](#): Law of Ukraine dated 19.11.1997
- ✓ [On Protection of People against Ionizing Radiation](#): Law of Ukraine dated 14.01.1998
- ✓ [On Permit Activity in the Field of Nuclear Energy Utilization](#): Law of Ukraine dated 11.01.2000
- ✓ [On Physical Protection of Nuclear Installations, Nuclear Materials, Radioactive Waste, Other Sources of Ionizing Radiation](#): Law of Ukraine dated 19.10.2000
- ✓ [On Civil Liability for Nuclear Damage and its Financial Provision](#): Law of Ukraine dated 13.12.2001
- ✓ [On Regulation of Issues Related to Ensuring Nuclear Safety](#): Law of Ukraine dated 24.06.2004
- ✓ [On the Procedure for Making Decisions on Locating, Designing and Building Nuclear Facilities and Objects Designed for Treating Radio-Active Waste That Are of National Significance](#): Law of Ukraine dated 08.09.2005
- ✓ and others



The Law of Ukraine “On Use of Nuclear Power and Radiation Safety” is the main system-forming legislative act.

The Law establishes the priority of human and environmental safety, the rights and obligations of citizens in the field of nuclear energy use, regulates activities related to the use of nuclear facilities and ionizing radiation sources, and the legal basis for Ukraine's international obligations in the use of nuclear energy.

Key concepts:

- *the use of nuclear energy is a set of activities related to the use of nuclear technologies, nuclear materials, ionizing radiation sources in science, production, medicine, and other industries, as well as the mining and processing of uranium ores and radioactive waste management;*
- *nuclear safety means compliance with the rules, regulations, and conditions for the use of nuclear materials that ensure radiation safety;*
- *radiation safety means compliance with the permissible limits of radiation exposure to personnel, the public, and the environment established by safety standards and regulations;*
- *radiation protection is a set of radiation-hygienic, design, technical, and organizational measures aimed at ensuring radiation safety.*

(art. 1 of the Law)

The provisions of this law are detailed and specified in other special laws.



The Law of Ukraine “On Handling Radioactive Wastes”

The Law is aimed at ensuring the protection of people and the environment from the harmful impact of radioactive waste at present and in the future.

- *radioactive wastes are tangible objects and substances, the activity of radionuclides or radioactive contamination of which exceeds the limits established by current regulations, given that the use of these objects and substances is not provided for;*
- *radioactive waste management are all activities (including decommissioning) related to the operation, pre-treatment, treatment, conditioning, transportation, storage or disposal of radioactive waste.*

(Art. 1 of the Law)

The Law of Ukraine “On Protection of People against Ionizing Radiation”

The Law regulates legal relations between the state, represented by its relevant executive authorities, legal entities, and individuals arising in connection with the negative impact of ionizing radiation.

The Law of Ukraine “On Permit Activity in the Field of Nuclear Energy Utilization”

This Law applies to relations arising in connection with the implementation of permitting activities in the field of nuclear energy use. Permitting activities in the field of nuclear energy use are aimed at protecting national security interests, ensuring the protection of humans and the environment from the effects of ionising radiation, compliance with the principles of radiation protection, as well as compliance with the requirements of the nuclear non-proliferation regime.

The Law of Ukraine “On Civil Liability for Nuclear Damage and its Financial Provision”

This Law regulates relations regarding civil liability for nuclear damage, establishes the procedure for compensation for damage caused by a nuclear incident, and defines the methods of financial support for civil liability and its limits.

Convention on Nuclear Safety (CNS). Ukraine signed the Convention on 20.09.1994. **The Law of Ukraine "On Ratification of the Convention on Nuclear Safety"** No. 736/97-BP dated 17.12.1997. Date of entry into force for Ukraine: 07.07.1998.

Article 3 of the Convention states that the Convention applies to the safety of nuclear installations. This means that the provisions of this international legal document can be applied to any stage of the nuclear fuel cycle.

According to the Convention, States are obliged to take legislative, regulatory, and administrative measures (Article 4) and to report on the measures taken at periodic meetings of States (Article 5). Section d of Chapter 2 sets out the general requirements for the safety of installations: site selection, design, construction, and operation (Articles 17-19). In addition, each State shall take the necessary measures to ensure that emergency plans are in place on and off site.



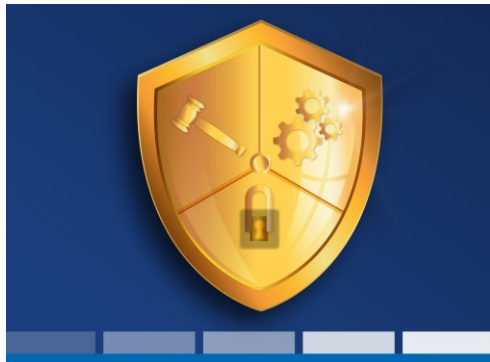
**CONVENTION ON
NUCLEAR SAFETY (CNS)**
Introduction to the CNS and Its Associated
Rules of Procedure and Guidelines



CNS Brochure, May 2010

Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment.

Ukraine signed the Convention on 05.08.1993. **Resolution of the Verkhovna Rada of Ukraine "On the Participation of Ukraine in the Convention on the Physical Protection of Nuclear Material of 1980"** No. 3182-XII dated 05.05.1993. Date of entry into force for Ukraine: 08.07.2005.



Convention on the Physical Protection of
Nuclear Material (CPPNM) and its Amendment



Multilateral international treaties and conventions in the field of nuclear and radiation safety

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. Ukraine signed the Convention on 05.09.1997. The Law of Ukraine "On Ratification of Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management" of 20.04.2000 No. 1688-III. Date of entry into force for Ukraine: 18.06.2001.

Vienna Convention on Civil Liability for Nuclear Damage. Ukraine acceded to the Convention as amended on 21.05.1963. Law of Ukraine "On Ukraine's Accession to the Vienna Convention on Civil Liability for Nuclear Damage" of 12.07.1996 No. 334/96-BP. Date of entry into force for Ukraine: 20.12.1996.

Convention on Early Notification of a Nuclear Accident. Ukraine signed the Convention on 24.09.1986. Decree of the Presidium of the Verkhovna Rada of the Ukrainian SSR "On Ratification of the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency" of 30.12.1986 No. 3339-XI. Date of entry into force for Ukraine: 24.01.1987.

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. Ukraine signed the Convention on 26.09.1986. Decree of the Presidium of the Verkhovna Rada of the Ukrainian SSR "On Ratification of the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency" of 30.12.1986 No. 3339-XI.



[Council Directive 2006/117/Euratom of 20 November 2006](#) on the supervision and control of shipments of radioactive waste and spent fuel

[Council Directive 2011/70/Euratom of 19 July 2011](#) establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste



[Council Directive 2013/59/Euratom of 5 December 2013](#) laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom

[Council Directive 2014/87/Euratom of 8 July 2014](#) amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations



Harmonization of Ukrainian and EU legislation in the field of regulating the use of nuclear energy and ensuring radiation safety

[The 2014 European Union–Ukraine Association Agreement](#) also included an agreement with the European Atomic Energy Community (Euratom). Accordingly, the Agreement enshrines Ukraine's obligation to implement the above Council of Europe/Euratom Directives.

Since 2014, work has been underway to adapt Ukrainian legislation to the requirements of these four directives.

In 2014, the Cabinet of Ministers of Ukraine approved an action plan for the implementation of the Association Agreement and monitors its implementation. The plan primarily envisages amendments and additions to Ukrainian legislation to bring it into compliance with the requirements of EU law in this area.

Thus, on 18 September 2019, the [Law of Ukraine "On Amendments to Certain Laws of Ukraine in the Field of Nuclear Energy Use"](#) was adopted in pursuance of Council Directive 2013/59/Euratom. Four laws of Ukraine were amended: "On Use of Nuclear Power and Radiation Safety"; "On Permit Activity in the Field of Nuclear Energy Utilization"; "On Protection of People against Ionizing Radiation"; " On Mining and Processing of Uranium Ores".



Harmonization of Ukrainian and EU legislation in the field of regulating the use of nuclear energy and ensuring radiation safety

On 11 December 2022, three Laws of Ukraine on activities in the field of nuclear energy came into force:

Law of Ukraine "On Amendments to the Law of Ukraine "On Use of Nuclear Power and Radiation Safety" regarding the Radiation Protection Expert" No. 2758-IX dated 16 November 2022, providing for the introduction of an institute of a radiation protection expert who will advise entities operating in the field of nuclear energy use, other legal entities, and individuals on compliance with the requirements of the legislation on nuclear and radiation safety.

Law of Ukraine "On Amendments to the Law of Ukraine "On Use of Nuclear Power and Radiation Safety" No. 2762-IX dated 16 November 2022:

- *unifies the terminology of Ukrainian legislation with the terminology of EU legislation;*
- *establishes qualification requirements for contractors of entities using nuclear energy, which will help to improve the safety of such activities;*
- *improves the requirements for the obligations of the operator of a nuclear installation to take all measures to prevent accidents and mitigate their consequences should they occur;*
- *complements the powers of the State Nuclear Regulatory Inspectorate of Ukraine to organise regular assessment of the regulatory framework in the field of nuclear energy use and activities of the state nuclear and radiation safety regulatory authority, as well as international peer audits.*

The Law of Ukraine "On Amendments to Certain Laws of Ukraine on Improving Permitting Activities in the Field of Nuclear Energy Use" No. 2755-IX dated 16 November 2022 is aimed at regulating the issue of issuing permits in the field of nuclear energy use in accordance with EU law. The implementation of the Law will help improve the procedure for issuing permits for activities in the field of nuclear energy use, considering the provisions of EU law and the experience gained in conducting permitting activities.



[The International Atomic Energy Agency \(IAEA\)](#) is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field established in 1957 by the United Nations General Assembly. Currently, the Agency includes 171 countries.

According to its [Statute](#), approved on 23 October 1956, the Agency's activities are aimed at achieving the widespread use of nuclear energy for peaceful purposes and promoting the dissemination of nuclear technologies. Among the main tasks of the IAEA is monitoring the peaceful use of nuclear energy and ensuring that peaceful nuclear activities are not diverted to military purposes.

The IAEA also sets standards for nuclear safety and security, provides technical assistance to member states, and encourages the exchange of scientific and technical information in the field of nuclear energy. The Agency provides advisory assistance and facilitates the transfer of skills and knowledge to countries for the effective implementation of national programs for the peaceful use of nuclear energy.



IAEA

International Atomic Energy Agency



Among regional intergovernmental nuclear organisations, the [European Atomic Energy Community, EAEC \(Euratom\)](#) occupies a special place.

[Treaty on the European Atomic Energy Community \(Euratom\)](#) was signed in Rome on 25 March 1957.



According to the Euratom Treaty, the Community has the **following tasks**:

- 1) development of scientific research and dissemination of technical information (Articles 4-29);
- 2) development and application of safety measures to protect the health of people working in the field of nuclear energy (Articles 30-39)
- 3) attracting capital investments and ensuring the construction of facilities necessary for the development of nuclear energy activities in the Community (Articles 40-51);
- 4) ensuring regularity and equality in the supply of ore and nuclear fuel to all those who use it within the Community (Articles 52-76);
- 5) ensuring, through appropriate supervision, the use of nuclear materials only for the purposes for which they are intended (Articles 77-85);
- 6) exercise of ownership rights in relation to special fissionable materials (Articles 86-91);
- 7) ensuring widespread use of and access to technical facilities by creating a common market for special materials and equipment, free movement of capital for investment in the field of nuclear energy and free recruitment of specialists in the Community (Articles 92-100);
- 8) establishing any relations with other states and international organisations that may be considered useful for accelerating progress in the peaceful use of nuclear energy (Articles 101-106).





IAEA

International Atomic Energy Agency

The **IAEA** plays a crucial role in developing and promoting international standards and guidelines related to radiation safety. These standards cover various aspects, including radiation protection for workers, public radiation exposure, the safety of nuclear facilities, radioactive waste management, and emergency preparedness and response.

Key activities of the IAEA related to radiation safety include:

Development of Standards: The IAEA develops and maintains a set of international standards and guidelines on radiation safety, known as the International Basic Safety Standards (BSS). These standards are widely used by member states to establish national regulations and practices.

Technical Assistance: The agency provides technical assistance to member states in implementing radiation safety measures. This assistance includes training programs, expert missions, and advisory services to improve the capacity of countries to manage radiation safety effectively.

Safety Reviews and Inspections: The IAEA conducts safety reviews and inspections of nuclear facilities and activities in member states to assess compliance with international safety standards. These reviews help identify areas for improvement and ensure that safety measures are implemented effectively.

Emergency Preparedness and Response: The IAEA assists member states in developing and enhancing their capabilities for emergency preparedness and response in case of nuclear accidents or radiological emergencies. This includes providing guidance on emergency planning, training exercises, and support during actual emergencies.

Research and Development: The agency conducts research and development activities to advance the understanding of radiation effects and safety measures. This includes studies on the health effects of radiation exposure, the development of new safety technologies, and the dissemination of research findings to member states.

Overall, the IAEA plays a vital role in promoting a culture of safety and ensuring the responsible use of nuclear technology to protect human health and the environment from the harmful effects of radiation.



IAEA Safety Standards

for protecting people and the environment

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards

Jointly sponsored by
EC, FAO, IAEA, ILO, OECD/NEA, PAHO, UNEP, WHO



General Safety Requirements Part 3 No. GSR Part 3



The **IAEA safety standards** reflect an international consensus on what constitutes a high level of safety for protecting people and the environment from the harmful effects of ionizing radiation.

The process of developing, reviewing and establishing the IAEA standards involves the IAEA Secretariat and all Member States, many of which are represented on the four IAEA safety standards committees and the IAEA Commission on Safety Standards.

The IAEA standards, as a key element of the global safety regime, are kept under regular review by the Secretariat, the safety standards committees, and the Commission on Safety Standards.

The Secretariat gathers information on experience in the application of the IAEA standards and information gained from the follow-up of events for the purpose of ensuring that the standards continue to meet users' needs.

International organizations and EU regulatory bodies in the field of nuclear energy use and radiation safety



The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) is a scientific body established by the United Nations General Assembly in 1955. Its primary mandate is to assess and report on the levels and effects of exposure to ionizing radiation.

Key points about UNSCEAR:

Scientific Assessments: UNSCEAR conducts comprehensive scientific assessments of the sources, levels, and effects of ionizing radiation. This includes natural sources of radiation, medical uses of radiation, occupational exposures, environmental radiation, and radiation from nuclear accidents.

Data Collection and Analysis: The committee collects data from member states, international organizations, and scientific research to analyze trends, patterns, and potential health impacts associated with radiation exposure. This information is used to provide evidence-based recommendations and reports.

Health Effects Evaluation: UNSCEAR evaluates the health effects of ionizing radiation on humans and the environment. This includes studying radiation-induced cancer risks, genetic effects, reproductive health impacts, and long-term consequences of exposure.

Publications and Reports: The committee publishes regular reports and scientific assessments based on its findings. These reports are widely used by governments, regulatory bodies, health organizations, and researchers to inform policies, guidelines, and radiation protection measures.

International Collaboration: UNSCEAR collaborates with other international organizations, such as the World Health Organization (WHO), International Atomic Energy Agency (IAEA), and International Commission on Radiological Protection (ICRP), to share expertise, coordinate research efforts, and promote global standards in radiation protection and safety.

Emergency Response: In the event of radiological emergencies or nuclear accidents, UNSCEAR provides technical support, expertise, and guidance to member states and relevant stakeholders. This includes assessing the potential consequences of the emergency and recommending protective measures.

UNSCEAR's work is crucial in advancing scientific understanding, promoting radiation safety, and ensuring the responsible use of nuclear technology. Its assessments and reports contribute significantly to global efforts aimed at protecting human health and the environment from the harmful effects of ionizing radiation.





The International Commission on Radiological Protection (ICRP) is an independent organization established in 1928 to promote the protection of people and the environment from the harmful effects of ionizing radiation. It is considered the leading international body in the field of radiation protection and provides guidance and recommendations to governments, regulatory agencies, and organizations worldwide.

Here are the key aspects of the ICRP:

Guidance Development: The primary function of the ICRP is to develop and update recommendations and guidance on radiation protection. This includes dose limits for occupational exposure, public exposure, and exposure of the environment to ionizing radiation.

Radiation Risk Assessment: The commission evaluates scientific data and conducts risk assessments to understand the health effects of radiation exposure. This includes studying the risks of cancer, genetic effects, and other potential health impacts associated with different levels of radiation exposure.

Dose Calculation and Limits: ICRP provides guidance on dose calculation methodologies and establishes dose limits for different exposure scenarios. Dose limits are used by regulatory organizations to ensure the safety of workers, the public, and the environment.

Radiation Protection Framework: The commission develops a framework for radiation protection that takes into account the principles of justification, optimization, and dose limitation. This framework helps guide decision-making processes related to the use of radiation in various applications, such as medicine, industry, and research.

International Collaboration: ICRP collaborates with other international organizations, such as the International Atomic Energy Agency (IAEA), World Health Organization (WHO), and United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), to harmonize standards, share expertise, and promote consistent approaches to radiation protection globally.

Education and Outreach: The commission engages in education and outreach activities to raise awareness about radiation protection principles, best practices, the scientific developments (workshops, seminars, and publishing educational materials and scientific reports).

Advisory Role: ICRP serves as an advisory body to governments, regulatory agencies, and other stakeholders on matters related to radiation protection policy, regulations, and implementation of best practices.





The World Health Organization (WHO) plays a significant role in addressing radiation safety and its impact on public health. While WHO's primary focus is on global health issues, it also provides guidance and support related to radiation safety. **Key aspects of WHO's involvement:**

Radiation Emergency Response: WHO assists member states in preparing for and responding to radiation emergencies, such as nuclear accidents or radiological incidents. This includes developing emergency response plans, providing technical expertise, and coordinating international assistance efforts during emergencies.

Health Risk Assessment: WHO assesses the health risks associated with radiation exposure, particularly in situations like occupational exposure, medical radiation procedures, environmental contamination, and exposure from natural sources. This assessment helps in understanding the potential health impacts and developing appropriate mitigation measures.

Radiation Exposure Guidelines: The organization establishes guidelines and recommendations for radiation exposure limits in various settings, including occupational exposure for workers, public exposure from sources like medical imaging or environmental contamination, and exposure during emergencies. These guidelines aim to protect individuals from the harmful effects of radiation while allowing for beneficial uses of radiation in healthcare, industry, and other sectors.

Radiation and Health Research: WHO conducts research and studies on the health effects of radiation exposure, including cancer risks, genetic effects, reproductive health impacts, and long-term health outcomes. This research helps in improving understanding, developing evidence-based recommendations, and informing public health policies related to radiation safety.

Capacity Building and Training: WHO provides training programs, capacity-building initiatives, and technical support to healthcare professionals, policymakers, and regulatory authorities on radiation safety practices, risk communication, and emergency response preparedness. This helps in enhancing the capacity of countries to manage radiation-related challenges effectively.

Collaboration with International Partners: WHO collaborates with other international organizations, such as the International Atomic Energy Agency (IAEA), International Commission on Radiological Protection (ICRP), and United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), to share expertise, harmonize standards, and promote best practices in radiation safety and public health.





International organizations and EU regulatory bodies in the field of nuclear energy use and radiation safety

The International Radiation Protection Association (IRPA) is a global organization that brings together professionals, experts, and organizations working in the field of radiation protection. Its primary mission is to promote the advancement of radiation protection practices, standards, and research worldwide.

Key aspects of IRPA's activities and contributions:

Networking and Collaboration: IRPA serves as a platform for networking and collaboration among radiation protection professionals, regulatory authorities, academia, and industry representatives. It facilitates the exchange of knowledge, experiences, and best practices across different sectors and regions.

Promotion of Best Practices: The association promotes the adoption of best practices in radiation protection, including the implementation of international standards and guidelines developed by organizations such as the International Commission on Radiological Protection and the International Atomic Energy Agency.

Education and Training: IRPA organizes conferences, seminars, workshops, and training programs to enhance the knowledge and skills of radiation protection professionals. Educational initiatives cover a wide range of topics, including radiation safety principles, dosimetry, risk assessment, and radiation protection in various applications such as healthcare, industry, and research.

Advocacy and Public Awareness: The association advocates for the importance of radiation protection and safety in public health and environmental protection. It promotes awareness campaigns, outreach activities, and communication strategies to educate the public, policymakers, and stakeholders about the risks of radiation exposure and the measures to mitigate these risks.

Research and Innovation: IRPA encourages and supports research initiatives, technological advancements, and innovations in radiation protection. It fosters collaboration between researchers, institutions, and industry to address emerging challenges, improve risk assessment methodologies, develop new protective technologies, and enhance radiation monitoring and surveillance systems.

International Representation: IRPA represents the global radiation protection community in international forums, conferences, and working groups. It contributes expertise and perspectives to discussions on radiation safety standards, regulations, and policies, influencing decision-making processes at national and international levels.

Ethical Considerations: The association promotes ethical principles and values in radiation protection practices, emphasizing transparency, accountability, professionalism, and respect for human rights and environmental sustainability.



EURADOS

The European Radiation Dosimetry Group (EURADOS) is a network of institutions, researchers, and experts across Europe who are dedicated to advancing the field of radiation dosimetry.

EURADOS focuses on research, development, and harmonization of dosimetry methods and practices, intending to improve radiation protection and safety standards. Here are **key aspects of EURADOS and its activities**:

Research and Development: EURADOS promotes research and development in radiation dosimetry, including the measurement and assessment of radiation doses medical applications, occupational exposures, environmental monitoring, and radiation emergencies.

Dosimetry Standards and Guidelines: The group works towards the harmonization of dosimetry standards, protocols, and guidelines within Europe and internationally. This includes collaborating with the International Commission on Radiological Protection and the International Atomic Energy Agency to ensure consistency and accuracy in dose assessment and reporting.

Quality Assurance: EURADOS promotes quality assurance in radiation dosimetry by developing and implementing quality control procedures, proficiency testing programs, and intercomparison exercises

Education and Training: The group organizes workshops, training courses, and scientific meetings to educate dosimetry professionals, researchers, and students. These educational activities cover topics such as dosimetry principles, measurement techniques, data analysis, uncertainty estimation, and radiation protection standards.

Collaboration and Networking: EURADOS facilitates collaboration and networking among dosimetry experts, institutions, and organizations across Europe and beyond. This collaboration enables knowledge sharing, exchange of best practices, joint research projects, and mutual support in addressing dosimetry challenges and emerging issues.

Technical Support: EURADOS provides technical support and expertise to regulatory authorities, healthcare providers, industry stakeholders, and other entities involved in radiation protection and safety. This support may include guidance on dosimetry methodologies, dose assessment strategies, quality assurance protocols, and compliance with regulatory requirements.

Innovation and Emerging Technologies: The group encourages innovation and adoption of emerging technologies in radiation dosimetry, such as advanced detectors, computational modeling techniques, digital dosimetry systems, and real-time monitoring devices. These innovations improve the efficiency, accuracy, and safety of dose measurements in diverse applications.





International organizations and EU regulatory bodies in the field of nuclear energy use and radiation safety

The International Organization for Standardization (ISO) develops and publishes international standards covering various aspects of radiation safety. These standards provide guidelines, best practices, and requirements for organizations, regulatory bodies, and professionals involved in radiation protection and safety. Here are some **key ISO standards related to radiation safety**:

ISO 17025 - General requirements for the competence of testing and calibration laboratories: While not specific to radiation safety, ISO 17025 sets out the criteria for the competence of testing and calibration laboratories. Laboratories involved in radiation dosimetry, environmental monitoring, or radiation measurements must comply with ISO 17025 to ensure the accuracy, reliability, and traceability of their results.

ISO 27048 - Radiation protection - Performance criteria for service laboratories performing biological dosimetry by cytogenetics: standard specifies criteria for laboratories conducting biological dosimetry by cytogenetics, which is the study of chromosomes to assess radiation exposure levels in individuals. This standard ensures that laboratories meet requirements for quality assurance, testing, and reporting of dosimetry results.

ISO 12787 - Dosimetry for exposures to cosmic radiation in civilian aircraft: This standard provides guidelines and procedures for dosimetry measurements related to cosmic radiation exposure experienced by aircrew members during flights. It addresses dosimetry monitoring devices, calibration methods, dose calculation algorithms, and reporting requirements for assessing radiation doses in aviation.

ISO 15382 - Radiation protection instrumentation - Dosimetry equipment for environmental, workplace, and personal monitoring of photon and beta radiation: This standard establishes requirements and specifications for dosimetry equipment used in environmental monitoring, workplace monitoring, and personal monitoring of photon and beta radiation (dosimeters, survey meters, and related instrumentation).

ISO 4037 - X and gamma reference radiation for calibrating dosimeters and dose-rate meters and for determining their response as a function of photon energy: This standard specifies reference radiation sources and calibration procedures for calibrating dosimeters and dose rate meters used in X-ray and gamma radiation fields. It ensures the accuracy, and reliability of dose measurements in radiological protection applications.

ISO 23600 - Non-destructive testing - Protection against radiation emitted by X-ray tube-based imaging equipment: This standard addresses radiation protection measures for individuals exposed to radiation from X-ray tube-based imaging equipment used in testing applications. It includes requirements for shielding, safety interlocks, operational procedures, and personnel training to minimize radiation hazards.

These ISO standards play a crucial role in promoting radiation safety, ensuring the quality and reliability of radiation measurements, and enhancing the effectiveness of radiation protection programs in various sectors such as healthcare, industry, research, and environmental monitoring. Organizations and professionals involved in radiation safety should be familiar with these standards and comply with their requirements to maintain high standards of radiation protection and safety.



State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) is a central executive body, which activities are directly coordinated by the Cabinet of Ministers of Ukraine, and which ensures the formation and implementation of state policy in the field of nuclear energy safety.

The main tasks of the SNRIU are

- 1) formation and implementation of state policy in the field of nuclear energy safety;
- 2) state regulation of the safety of nuclear energy utilisation;
- 3) the competent authority for the physical protection of nuclear material and nuclear facilities according to the [Convention on the physical protection of nuclear material and nuclear facilities](#); on the safe transportation of radioactive materials according to the rules of nuclear and radiation safety in the transportation of radioactive materials; on emergency notification and information in accordance with the Convention on Early Notification of a Nuclear Accident, implementation of the Agreement between Ukraine and the IAEA on the application of safeguards.



SNRIU in accordance with its tasks

- establishes safety criteria and requirements that are mandatory for the use of nuclear energy, according to which it approves
 - norms and rules on nuclear and radiation safety;
 - norms and rules on physical protection of nuclear facilities, nuclear materials, radioactive waste, and other sources of ionizing radiation;
 - regulatory legal acts on the organization and maintenance of accounting and control of nuclear materials, application of nuclear non-proliferation guarantees;
 - safety requirements and conditions (licensing conditions) for carrying out activities in the field of nuclear energy use;
- approves standards, technical specifications, and other documents for labor equipment and technological processes in terms of ensuring nuclear and radiation safety;
- conducts safety assessments of nuclear installations, facilities for radioactive waste management, uranium facilities, and other sources of ionizing radiation;



- in accordance with the procedure established by law, licenses
 - activities of the operating organization at a separate stage of the life cycle of a nuclear installation or storage facility for radioactive waste disposal;
 - activities related to direct management of the reactor facility by personnel;
 - activities of officials of the operating organization, whose official responsibilities include the implementation of organizational and administrative functions related to nuclear and radiation safety;
 - activities for mining, processing of uranium ores, processing, and storage of radioactive waste, use of ionizing radiation sources, production of ionizing radiation sources, transportation of radioactive materials;
 - training of personnel for the operation of a nuclear installation;
 - training, retraining, and advanced training of specialists in the physical protection of nuclear installations, nuclear materials, radioactive waste, and other sources of ionizing radiation;
- exercises other powers defined by law.

(clause 4 of the Regulation on the State Nuclear Regulatory Inspectorate of Ukraine, approved by Resolution of the Cabinet of Ministers of Ukraine No. 363 dated 20 August 2014 as amended)



Means of state regulation of nuclear energy utilization:

1. Regulation – establishment of regulatory criteria and requirements that define the conditions for the use of nuclear facilities and ionising radiation sources in the state.

Norms and regulations on nuclear and radiation safety are criteria, requirements, and conditions for ensuring safety in the use of nuclear energy. Compliance with nuclear and radiation safety norms and regulations is mandatory for any activity in the field of nuclear energy use.

Examples:

Requirements for cybersecurity of information and control systems of nuclear power plants to ensure nuclear and radiation safety, approved by SNRIU Order No. 223 dated 22 March 2022;

Rules for the Safe Transportation of Radioactive Materials, approved by SNRIU Order No. 436 dated 27 October 2020.

2. Permitting activities – granting permits for activities related to the use of nuclear facilities and ionising radiation sources.

[The Law of Ukraine “On Permit Activity in the Field of Nuclear Energy Utilization”](#)

3. Supervision – activities of the SNRIU and its territorial bodies to monitor compliance with the legislation, norms, rules and standards on nuclear and radiation safety (except for medical safety requirements), conditions specified in permitting documents, requirements for the physical protection of nuclear facilities, nuclear materials, radioactive waste, other sources of ionising radiation, accounting and control of nuclear materials, other sources of ionising radiation and application of enforcement measures to prevent, detect and eliminate violations in the use of nuclear energy.



The Law of Ukraine “On Permit Activity in the Field of Nuclear Energy Utilization”

Purpose of the permitting activity:

- ensuring the use of only those facilities whose level of nuclear and radiation safety is recognised as meeting internationally recognised requirements;
- ensuring that activities in the field of nuclear energy utilization are carried out only by those individuals and legal entities that can guarantee compliance with the requirements of legislation, norms and regulations on nuclear and radiation safety, physical protection of nuclear materials, nuclear facilities, radioactive waste, and other sources of ionising radiation.

Permitting activities include the following types:

- licensing of certain types of activities in the field of nuclear energy utilization;
- licensing of activities of an operating organisation at a certain stage of the life cycle of a nuclear installation or storage facility for radioactive waste disposal and issuance of separate permits to such an organisation to perform certain types of work or operations at certain stages of the life cycle of a nuclear installation or storage facility for radioactive waste disposal;
- licensing of activities related to the direct management of a reactor facility by personnel and activities of officials of the operating organisation whose official duties include the implementation of organisational and administrative functions related to nuclear and radiation safety;
- issuance of approval certificates in case of transport of radioactive materials;
- state registration of sources of ionising radiation;
- issuing permits for the transportation of radioactive materials.

In 2022, 1,373 licences were issued/amended/reissued; 31 individual permits were issued to operating organisations; 29 permits were issued for the transport of radioactive materials; and 14 package approval certificates were issued.



Types of activities in the field of nuclear energy utilization subject to licensing:

- mining, processing of uranium ores;
- transportation of radioactive materials;
- processing and storage of radioactive waste;
- production of sources of ionising radiation;
- use of sources of ionising radiation;
- training of personnel for the operation of a nuclear facility (according to the list of positions and specialities determined by the Cabinet of Ministers of Ukraine);
- training, retraining and advanced training of specialists in physical protection of nuclear facilities, nuclear materials, radioactive waste, and other sources of ionizing radiation.



Licence to carry out activities in the field of nuclear energy utilization is a permitting document issued by the authorized body of state regulation of nuclear and radiation safety, certifying the licensee's right to carry out activities in the field of nuclear energy utilization, subject to ensuring nuclear and radiation safety, physical protection of nuclear facilities, nuclear materials, radioactive waste, and other sources of ionising radiation.



Legal and regulatory framework:

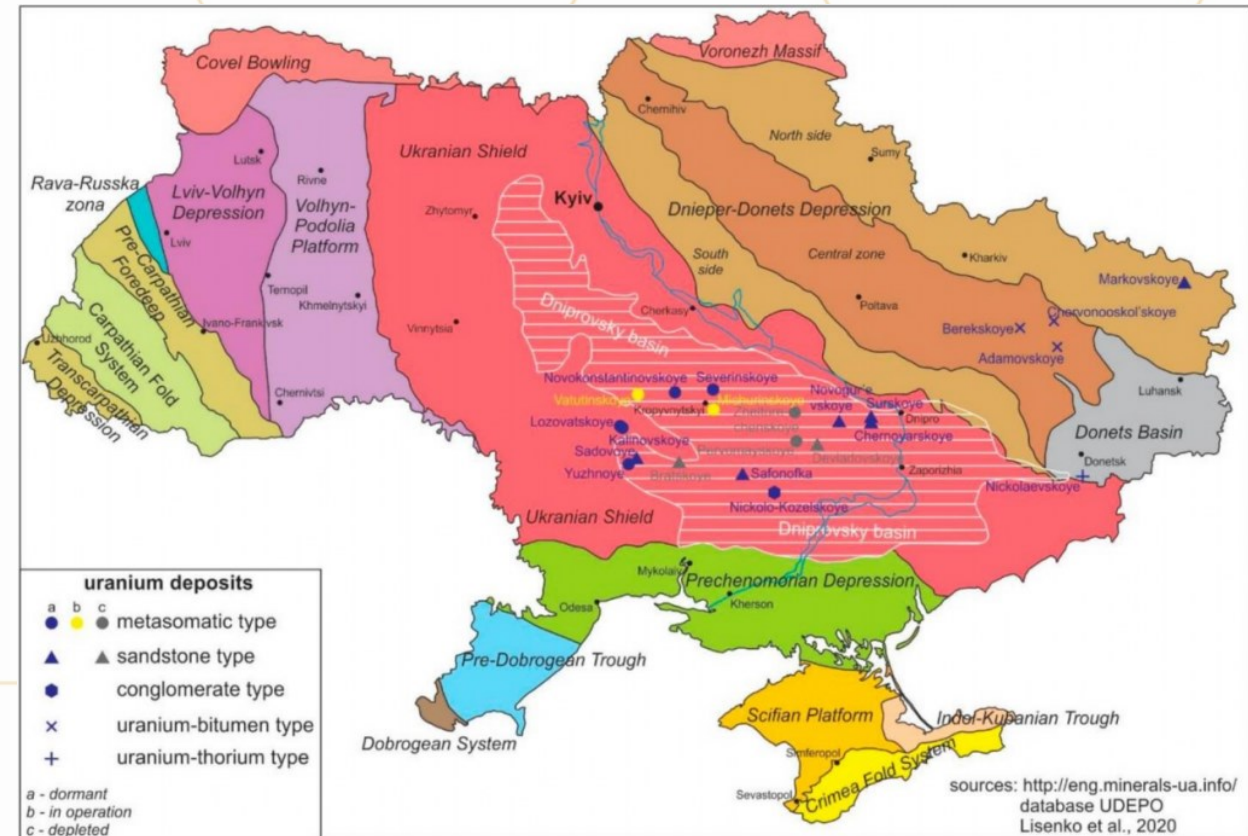
- Articles 6, 7 of the Law of Ukraine "On Mining and Processing of Uranium Ores";
- The Law of Ukraine "On Permit Activity in the Field of Nuclear Energy Utilization";
- Safety requirements and conditions (licensing conditions) for uranium ore processing activities approved by SNRIU Order No. 101 dated 27 May 2015.

Uranium ores are minerals that are mined and processed to produce nuclear material. Ukraine began producing uranium back in 1945. Today, uranium ore is mined at three deposits: Michurinske, Central and Novokostyantynivske deposits (Kirovohrad oblast).

Basic requirements for an entity conducting such activities:

- implementation of a set of measures aimed at ensuring radiation safety and physical protection of the uranium facility;
- implementation of a set of measures aimed at ensuring radiation protection of personnel and the population, minimization of negative impact on the environment;
- defining qualification requirements for personnel and ensuring training, advanced training and testing of knowledge on radiation safety issues for personnel and officials responsible for ensuring nuclear and radiation safety.

Today, only two business enterprises in Ukraine have such a license.



Legal and regulatory framework:

- The Strategy for Radioactive Waste Management in Ukraine, approved by Resolution of the Cabinet of Ministers of Ukraine No. 990-p dated 19 August 2009;
- The Law of Ukraine "On Handling Radioactive Wastes";
- The Law of Ukraine "On Permit Activity in the Field of Nuclear Energy Utilization"
- Safety conditions and requirements (licensing conditions) for radioactive waste management, approved by SNRIU Order No. 110 dated 6 November 2002;
- Safety requirements and conditions (licensing conditions) for the transportation of radioactive materials and Requirements for the report on safety analysis of the transportation of radioactive materials, approved by SNRIU Order No. 141 dated 31 August 2004;
- Rules for the Safe Transportation of Radioactive Materials, approved by SNRIU Order No. 436 dated 27 October 2020.

The requirements are in compliance with international rules established by the IAEA.



Transportation includes preparation, loading, dispatch, transport, transit storage, unloading, and acceptance of packages at the destination.

According to the Unified Register of Licences, more than 50 business entities of various forms of ownership have received a license to transport radioactive materials.

Activities for the processing and storage of radioactive waste help reduce unjustified risks of harmful effects of ionizing radiation on humans and the environment and radiation risks in the future.

The entity involved in the radioactive waste management shall ensure the availability of

- an appropriate organizational structure and qualified personnel who have undergone training and knowledge testing on nuclear and radiation safety and have no medical contraindications for working with sources of ionizing radiation;
- financial, material, and other resources to ensure the level of safety of the facility intended for radioactive waste management, provided for by the norms and regulations on nuclear and radiation safety;
- financial resources to compensate for damage from radiation accidents that may occur during the licensed activity, using their own expense or at the expense of insurance companies (organizations).

According to the Unified Register of Licences, more than 30 entities operating in the field of nuclear energy utilization have received a license for processing and storage of radioactive waste.



Legal and regulatory framework:

- The Law of Ukraine "On Permit Activity in the Field of Nuclear Energy Utilization";
- The List of Positions and Specialties of Personnel for the Operation of Nuclear Installations, whose Training is Subject to Licensing, and the List of Positions of Personnel Directly Managing a Reactor Installation, approved by Resolution of the Cabinet of Ministers of Ukraine No. 1683 dated 8 November 2000;
- Rules for Licensing the Training of Personnel for the Operation of a Nuclear Installation, approved by SNRIU Order No. 186 dated 13 December 2004;
- Rules for Licensing the Activities of Personnel Involved in the Direct Management of NPP Reactor Installation, approved by SNRIU Order No. 185 dated 13 December 2004;
- The Procedure for Training and Testing Knowledge on Nuclear and Radiation Safety of Personnel of Operating Organizations (Operators) and Legal Entities Engaged by Operating Organizations as Contractors, approved by SNRIU Order No. 188 dated 18 October 2012.

Professional training of personnel positions should be carried out according to individual training programs developed based on corresponding standard training programs for each position depending on the level of knowledge of the specialist, his/her education and work experience, and approved in accordance with the procedure established by the operating organization.



Currently, there are nine educational institutions in Ukraine that train specialists to work in the nuclear power industry: National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", National University "Lviv Polytechnic", Odesa Polytechnic National University, National Technical University "Kharkiv Polytechnic Institute", Taras Shevchenko National University of Kyiv, Vinnytsia National Technical University, National University of Water and Environmental Engineering, SHEI "Ukrainian State University of Chemical Technology", Kyiv Energy Professional College, and Professional Vocational College, Branch of Rivne NPP, which is the only one of its kind, trains specialists for work at NPPs.

By field of activity, NPP personnel are divided into

- operating personnel (maintains power generation equipment)
- repair personnel (performs repairs, modernization and maintenance of equipment, instruments, devices, buildings, and structures).

Operating personnel include

- operational personnel
- operating personnel who are not part of the operational staff (administrative and managerial personnel engaged in production management and information services; production personnel, such as warehouse workers; general shop personnel).

The main production functions at a nuclear power plant are performed by operational personnel who provide round-the-clock maintenance of equipment and process modes. These include, for example, a leading reactor control engineer; a nuclear power plant shift supervisor; a nuclear power plant unit shift supervisor, etc.



The entity (operator of a nuclear installation or facility) implements a system of training and knowledge testing of personnel and ensures that personnel authorized to perform their duties independently:

- meets the qualification requirements established by the business entity;
- has completed appropriate training in nuclear and radiation safety;
- passed the knowledge test in accordance with the procedure established by law;
- knows, understands, and complies with nuclear and radiation safety requirements.

Since 2007, Ukraine has been carrying out state registration of ionizing radiation sources as one of the components of permitting activities in the field of nuclear energy use.

State registration of ionizing radiation sources involves entering into the State Register of Ionizing Radiation Sources and Individual Doses information on ionizing radiation sources produced in Ukraine or imported or exported across the state border of Ukraine, as well as on the owners of such sources.

The Procedure for State Registration of Ionizing Radiation Sources, approved by Resolution of the Cabinet of Ministers of Ukraine No. 1718 dated 16 November 2000.

The State Register of Ionizing Radiation Sources collects information on ionizing radiation sources received from registrants in the form of

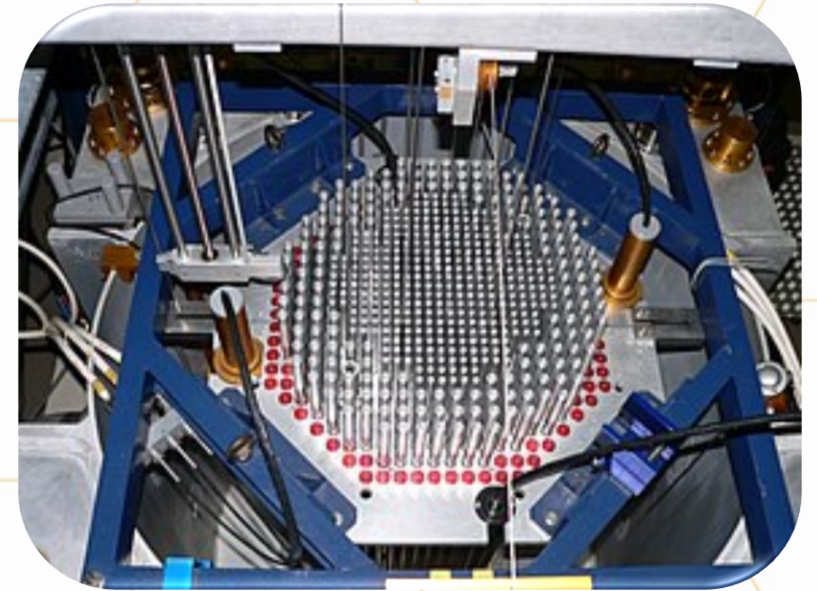
- registration cards (in paper and/or electronic form with a qualified electronic signature) in the form established by the SNRIU;
- notifications prepared in Forms 1 and 2 according to Annex 1 (in paper and/or electronic form with a qualified electronic signature);
- copies of passports or certificates for ionizing radiation sources.

According to the State Register of Ionizing Radiation Sources and Individual Doses, as of the beginning of 2022, more than 26,000 ionizing radiation sources were in use in Ukraine.



Objects of state supervision:

- nuclear installations;
- facilities intended for radioactive waste management;
- uranium ore processing facilities;
- nuclear materials, radioactive waste, and other sources of ionizing radiation;
- activities in the field of nuclear energy use of enterprises, institutions, organizations, officials and personnel, individual entrepreneurs who carry out or have declared their intention to carry out such activities.



Subjects of state supervision:

- State Nuclear Regulatory Inspectorate of Ukraine;
- territorial bodies of State Nuclear Regulatory Inspectorate with the involvement of representatives of other state supervisory (control) bodies, if necessary.



Measures of state supervision over compliance with nuclear and radiation safety requirements:

- analyzing information on the state of nuclear and radiation safety of state supervision objects;
- conducting inspections and surveys;
- issuance of binding orders and instructions in case of violations of nuclear and radiation safety requirements based on the results of inspections, surveys and analysis of information on the state of nuclear and radiation safety of state supervision objects;
- application of enforcement measures provided for by law to legal entities and individuals in case of detection of violations of nuclear and radiation safety requirements and/or failure to comply with requirements of orders and instructions.

For example, in December 2023, based on the results of the state supervision of compliance with nuclear and radiation safety requirements, 4 violations of nuclear and radiation safety requirements were identified, 1 order to eliminate violations of nuclear and radiation safety requirements was issued, and 2 protocols on violation of the Law of Ukraine "On Permit Activity in the Field of Nuclear Energy Utilization" were drawn up.



LAW OF UKRAINE

On Permit Activity in the Field of Nuclear Energy Utilisation

(The Official Bulletin of the Verkhovna Rada of Ukraine (BVR), 2000, No. 9, Art. 68)

{As amended by Laws

No. 747-IV of 15 May 2003, BVR, 2003, No. 29, Art. 236

No. 1874-VI of 11 February 2010, BVR, 2010, No. 20, Art. 198

No. 5316-VI of 2 October 2012, BVR, 2013, No. 38, Art. 502

No. 5460-VI of 16 October 2012, BVR, 2014, Nos. 2–3, Art. 41

No. 1983-VIII of 23 March 2017, BVR, 2017, No. 25, Art. 289

No. 107-IX of 18 September 2019, BVR, 2019, No. 40, Art. 220}



Activities related to the use of ionizing radiation sources that meet the criteria established by the Cabinet of Ministers of Ukraine are exempt from licensing.

(Article 7 of the Law of Ukraine "On Permit Activity in the Field of Nuclear Energy Utilization")

The criteria for exempting activities involving the use of ionizing radiation sources from licensing, approved by Resolution of the Cabinet of Ministers of Ukraine No. 1174 dated 16 November 2011.

Key concepts:

- exemption from regulatory control by withdrawal from regulatory control - a decision on the absence of the need for regulatory control over radioactive materials, which is made at the stage of planning practical activities with them;
- exemption from regulatory control by termination of regulatory control - a decision on the absence of the need to continue regulatory control over radioactive materials, which is made at the stage of practical activities with them or during intervention in the event of a radiation accident;
- regulatory control - activities of state bodies regulating nuclear and radiation safety, including regulation, permit activities, and supervision of compliance with nuclear and radiation safety norms, rules, and standards in the course of practical activities with radioactive materials.



Radioactive materials are eligible for complete exemption from regulatory control, provided that these materials simultaneously meet the following criteria:

- the expected annual effective dose to any person does not exceed 0.01 mSv/year under all predicted scenarios with a probability of occurrence of more than $1 \cdot 10^{-2} \text{ year}^{-1}$;
- the expected annual effective dose to any person does not exceed 1 mSv/year under unlikely scenarios with a probability of occurrence of less than $1 \cdot 10^{-2} \text{ year}^{-1}$;
- the collective annual effective dose resulting from the release of radioactive materials from regulatory control does not exceed 1 man·Sv or it has been proven that the release is the best solution in terms of optimisation of radiation protection.



Average Annual Radiation Dose

Sources	Radon & Thoron	Computed Tomography	Nuclear Medicine	Interventional Fluoroscopy	Space	Conventional Radiography/Fluoroscopy	Internal	Terrestrial	Consumer	Occupational	Industrial
Units											
mrem (United States)	228 mrem	147 mrem	77 mrem	43 mrem	33 mrem	33 mrem	29 mrem	21 mrem	13 mrem	0.5 mrem	0.3 mrem
mSv (International)	2.28 mSv	1.47 mSv	0.77 mSv	0.43 mSv	0.33 mSv	0.33mSv	0.29 mSv	0.21 mSv	0.13 mSv	0.005 mSv	0.003 mSv

(Source: National Council on Radiation Protection & Measurements, Report No. 160)

Legal and regulatory framework

- ✓ Code of Civil Protection of Ukraine dated 2 October 2012
- ✓ Regulation on the Unified State System of Civil Protection, approved by Resolution of the Cabinet of Ministers of Ukraine No. 11 dated 9 January 2014
- ✓ Regulation on the Functional Subsystem of Nuclear and Radiation Safety of the Unified State System of Civil Protection, approved by SNRIU Order No. 57 dated 14 February 2020
- ✓ National Emergency Response Plan, approved by Resolution of the Cabinet of Ministers of Ukraine No. 223 dated 14 March 2018.

The functional subsystem of nuclear and radiation safety is an integral part of the unified state system of civil protection against radiation hazards, which includes the State Nuclear Regulatory Inspectorate of Ukraine, management bodies and civil protection forces of economic entities within its management, and entities operating in the field of nuclear energy use.

The purpose of its creation:

- protecting personnel, population, and territories from the harmful effects of ionizing radiation by preventing nuclear and radiation accidents at nuclear energy facilities and during the transportation of radioactive materials, and ensuring prompt response in the event of such accidents in peacetime and in special periods;
- notifying and further informing the concerned state authorities, the public (through mass media), the Incident and Emergency Center of the International Atomic Energy Agency, competent authorities of other countries within the framework of international treaties in case of nuclear and radiation accidents on the territory of Ukraine and abroad in case of possible transboundary transfer of radioactive substances that may be of significance for other states from the point of view of radiation safety, and that have been or could be exposed to radiation hazards.

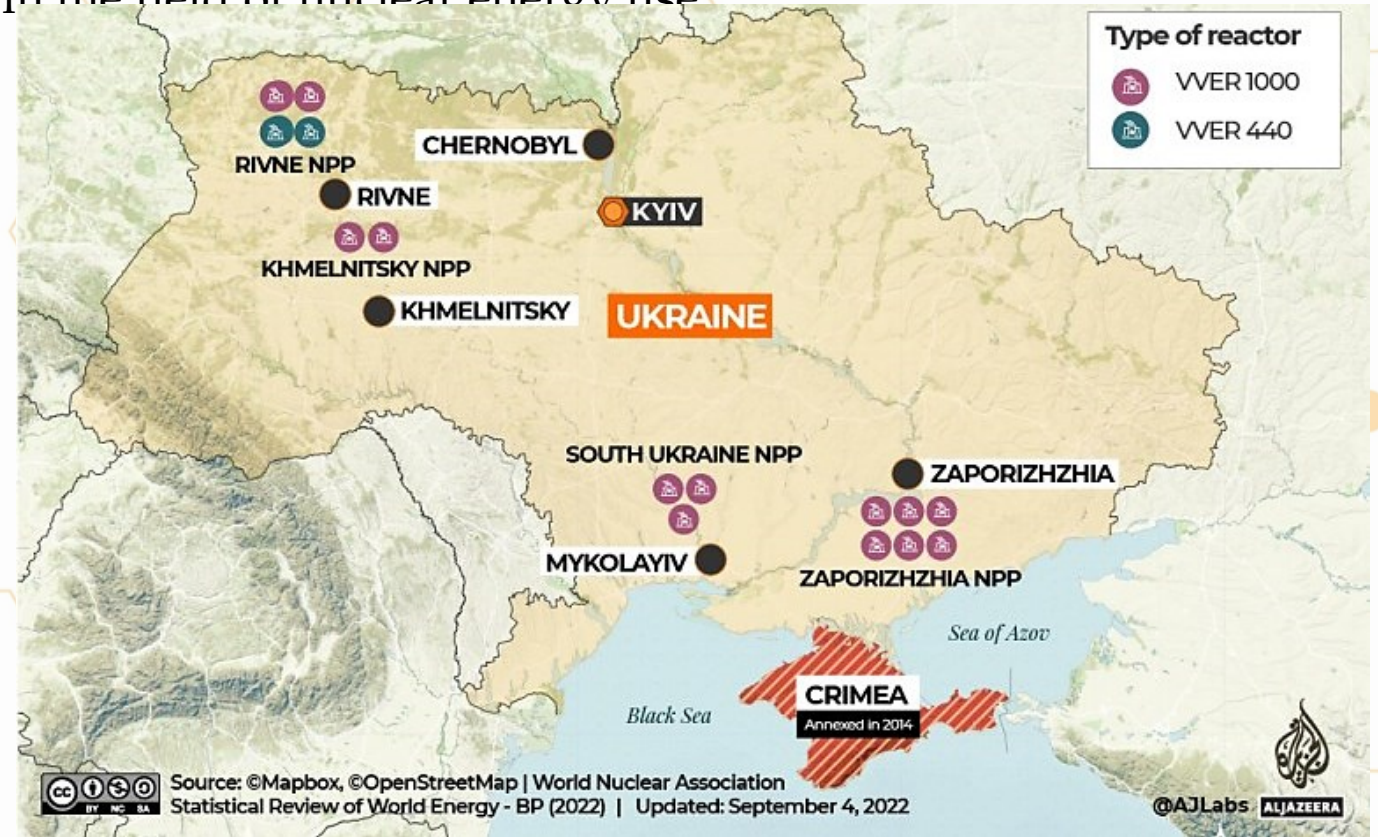
Permanent management bodies of the functional subsystem:

- ✓ *at the state level* – SNRIU through SNRIU structural unit on civil protection;
- ✓ *at the regional level* – interregional territorial bodies of the SNRIU and territorial bodies at NPP sites;
- ✓ *at the facility level* – heads of entities operating in the field of nuclear energy use

Modes of subsystem operation:

- daily operation;
- high alert mode;
- emergency situation;
- state of emergency.

The decision to switch the functional subsystem from one mode to another is made by the SNRIU Chairman.



Nuclear damage means loss of life, any damage to human health, or any loss of property, or damage to property, or any other loss or damage resulting from the hazardous properties of nuclear material at a nuclear facility or nuclear material coming from or being sent to a nuclear facility, except for damage to the facility itself or to the vehicle used for transportation.

Legal and regulatory framework

- ✓ The Law of Ukraine "On Use of Nuclear Power and Radiation Safety"
- ✓ The Law of Ukraine "On Civil Liability for Nuclear Damage and its Financial Provision"
- ✓ Procedure and Rules for Compulsory Insurance of Civil Liability for Nuclear Damage, approved by Resolution of the Cabinet of Ministers of Ukraine No. 953 dated 23 June 2003
- ✓ Regulation on the Nuclear Insurance Pool, approved by Resolution of the Cabinet of Ministers of Ukraine No. 953 dated 23 June 2003.

Nuclear damage may be compensated based on a nuclear damage compensation agreement or a court decision.



Limits of liability:

- the operator's liability for nuclear damage is limited to the amount equivalent to 150 million (for research reactors, equivalent to 5 million) Special Drawing Rights in national currency for each nuclear incident;
- the operator's liability for causing death is limited to an amount equal to 2000 tax-free minimum incomes of citizens established at the time of the court decision (conclusion of the nuclear damage compensation agreement) for each deceased.

Financial support for civil liability for nuclear damage is carried out by the operator through, first of all, insurance of liability for nuclear damage that may be caused as a result of a nuclear incident.

The Nuclear Insurance Pool is an association of Ukrainian resident insurers who have received a license to provide compulsory civil liability insurance for nuclear damage in accordance with the established procedure.





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