COUNTER HOVNA RADA OF UKRAINE

On human protection from the effects of ionizing radiation

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LAW OF UKRAINE

On human protection from the effects of ionizing radiation

(Vedomosti Verkhovna Rada of Ukraine (VVR), 1998, No. 22, p. 115)

{As amended by Laws

No. 2397-III of 26.04.2001, VVR, 2001, No. 30, Art.

139 No. 1248-VI of 14.04.2009, VVR, 2009, No. 34-35, Art. 506

No. 5460-VI of 16.10.2012, VVR, 2014, No. 2-3, Art. 41

No. 442-VII of 05.09.2013, VVR, 2014, No. 20-21, Art. 727

No. 107-IX of 18.09.2019, VVR, 2019, No. 40, Art. 220

No. 124-IX of 20.09.2019, VVR, 2019, No. 46, p. 295

No. 3344-IX dated 08/23/2023 }

{In the title and text of the Law, the words "ionizing radiation" in all cases are replaced by the words "ionizing radiation" in the corresponding cases in accordance with Law <u>No. 2397-III of</u> *26.04.2001 }*

{In the text of the Law, the word "standards" is excluded based on Law No. 124-IX of 20.09.2019

This Law is aimed at ensuring the protection of people's lives, health and property from the negative effects of ionizing radiation caused by practical activities, as well as in situations of existing and emergency exposure, by implementing preventive and rescue measures and compensating for damage.

{Preamble as amended by Law No. 3344-IX of 08/23/2023 }

Section I GENERAL PROVISIONS

Article 1. Definition of basic terms

In this Law, the following terms are used in the following meaning:

emergency situation - any unexpected (unplanned) event that led to a violation of the conditions for the safe operation of a nuclear installation, a facility intended for radioactive waste management, a source of ionizing radiation, which did not lead to an accident, but requires measures to be taken to prevent or minimize the harmful effects of radiation and ensure the normal operation of the installation, facility or source;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

intervention - any action aimed at reducing or preventing exposure or the possibility of human exposure from sources that are not part of the controlled practical activity or that have become out of control;

equivalent radiation dose - the product of the absorbed dose in a human tissue or organ and the radiation weighting factor, determined in accordance with radiation safety standards, taking into account the type of radiation;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

effective radiation dose - the calculated radiation dose to a person, which takes into account the contributions of the effects of radiation on various organs and tissues of a person to his or her overall health;

critical group of people - a group homogeneous in terms of living conditions, age and gender, which can receive maximum effective doses of radiation through a certain exposure route as a result of practical activities;

medical exposure - exposure to which patients or healthy individuals are exposed for the purposes of diagnosing a health condition or treatment;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

radiation - the effect on a person of ionizing radiation, which may be external radiation as a result of practical activities from sources of ionizing radiation outside the human body or internal radiation from sources of ionizing radiation located inside the human body;

exposure of the population - exposure to which a person is (has been) exposed from nuclear installations and sources of ionizing radiation, with the exception of occupational and medical exposure and exposure caused by local natural radiation background;

occupational exposure - exposure of personnel, trainees and students, and other workers involved in work at facilities where practical activities are carried out, during the work of these workers with sources of ionizing radiation;

{Paragraph seven of Article 1 as amended by Law No. 107-IX of September 18, 2019}

radiation dose limit - the value of the effective and/or equivalent radiation dose to a person per year, established by this Law and radiation safety standards, which must not be exceeded for an individual;

{Definition of the term as amended by Law No. 3344-IX of 08/23/2023}

member of the public - any person, except for persons exposed to occupational or medical exposure;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

practical activity - a human activity during which additional radiation sources or additional exposure routes are introduced, or the number of people exposed to radiation increases, resulting in an increase in the magnitude of exposure, its probability, or the number of people exposed, which is managed as a planned exposure situation;

{Paragraph nine of Article 1 as amended by Laws No. 107-IX of September 18, 2019, No. 3344-IX of August 23, 2023 }

natural radiation background - radiation caused by cosmic radiation and radiation from natural radionuclides naturally distributed in the earth, water, air and other elements of the biosphere;

representative person - a person whose radiation dose is representative of individuals in the population with the highest exposure levels among individuals in the population;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

reference level - the level of effective or equivalent radiation dose or activity concentration of radionuclides in emergency or existing radiation situations, above which exposure as a result of such situations is considered unacceptable, even if it does not exceed the radiation dose limit;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

intervention level - the expected calculated value of the human radiation dose, which necessitates the mandatory adoption of measures to protect humans from the effects of ionizing radiation;

emergency radiation situation - a radiation situation that arises as a result of an emergency situation, radiation accident and requires urgent measures to prevent or minimize the harmful effects of radiation;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

existing exposure situation - an exposure situation that already exists, caused by natural radiation or radioactive materials remaining from activities for which state supervision (control) was not carried out, or after accidents;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

planned exposure situation - an exposure situation arising from practical activities that involve exposure under normal conditions and potential exposure of people and the environment;

{ Article 1 is supplemented with a term in accordance with Law No. 3344-IX of 08/23/2023 }

diagnostic reference levels - levels of radiation doses to patients in X-ray diagnostics or levels of activity of medicinal substances with radioactive isotopes (radioactive pharmaceuticals) in radionuclide diagnostics for typical studies and standard patients or standard phantoms using generally recognized types of equipment.

{Article 1 is supplemented with a paragraph in accordance with Law <u>No. 107-IX of September 18, 2019</u>}

Article 2. Scope of the Law

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

{Article 2 as amended by Law No. 3344-IX of 08/23/2023 }

Article 3. The human right to protection from exposure to ionizing radiation

Every person residing or temporarily staying in the territory of Ukraine has the right to protection from the effects of ionizing radiation. This right is ensured by implementing a set of measures to prevent the effects of ionizing radiation on the human body above the established limits of radiation doses, compensation for exceeding the established limits of radiation doses, and compensation for damage caused as a result of the effects of ionizing radiation.

{Article 3 as amended by Law <u>No. 3344-IX of 08/23/2023</u>}

Article 4. The right of citizens and their associations to information regarding the state of human protection from the effects of ionizing radiation

Citizens of Ukraine and their associations have the right to receive information on the levels of human exposure and measures for protection against the effects of ionizing radiation in their places of residence or work from the relevant executive authorities responsible for the functions of protecting humans from the effects of ionizing radiation in accordance with the legislation of Ukraine.

Section II EXPOSURE DOSE LIMITS AND INTERVENTION LEVELS

{Title of Section II as amended by Law No. 3344-IX of 08/23/2023}

Article 5. Limits on radiation doses to members of the public

The effective dose limit for members of the public is 1 millisievert* per year from all permitted types of practical activities.

The limit of equivalent radiation dose for members of the public is:

for the lens of the eye - 15 mSv per year;

for skin - 50 mSv per year.

The limits of individual exposure doses to members of the public and the criteria for the density of soil contamination in the territory that was subjected to radioactive contamination as a result of the Chernobyl disaster are determined by legislation.

{Article 5 as amended by Law <u>No. 2397-III of 04/26/2001</u>; as amended by Law <u>No. 3344-IX of 08/23/2023</u>}

Article 6. Occupational exposure dose limits

The effective dose limit for occupational exposure is 20 mSv in any single year. It is permissible to set the effective dose for occupational exposure up to 50 mSv per year, provided that the average annual dose over any five consecutive years, including years in which the limit is exceeded, does not exceed 20 mSv.

The limit of equivalent occupational exposure dose for the lens of the eye is 20 mSv in a single year or 100 mSv in any five consecutive years, provided that the maximum annual dose is 50 mSv in a single year, as specified in part one of this article.

The occupational equivalent dose limit for skin is 500 mSv per year. This limit applies to the average dose per 1 square centimeter of skin, regardless of the area of skin exposed.

The occupational equivalent dose limit for the extremities is 500 mSv per year.

For trainees and students aged 18 and over who work with sources of ionizing radiation during their training, the limits of effective and equivalent doses of occupational exposure established in accordance with this article shall apply.

For trainees and students aged 16 to 18 who work with sources of ionizing radiation during their studies:

the limit for equivalent occupational exposure dose to the skin is 50 mSv per year. This limit applies to the average dose per 1 square centimeter of skin, regardless of which area of skin is exposed;

The occupational equivalent dose limit for the extremities is 50 mSv per year.

For pregnant women who work in conditions of exposure to ionizing radiation and are part of the staff, the employer shall ensure working conditions under which the effective dose of occupational exposure does not exceed 1 mSv for the entire period of pregnancy.

Women who are breastfeeding a child shall not be involved in work during which radionuclides may enter the human body. The working conditions provided for in this part and part five of this article shall be ensured from the moment the employer is notified of the pregnancy and/or breastfeeding throughout their entire period.

Medical and other workers, students who work with sources of ionizing radiation must be informed by the employer about the health risks associated with their work, about general radiation protection procedures and precautions that must be taken while at the workplace to prevent the negative effects of ionizing radiation, as well as about the algorithm for taking emergency measures in the event of a radiation accident.

This article also applies to persons performing temporary work related to the use of ionizing radiation sources.

{Article 6 as amended by Law <u>No. 107-IX of September 18, 2019</u>; as amended by Law <u>No. 3344-IX of August 23, 2023</u>}

Article 7. Protection of persons involved in responding to emergency situations, liquidation of radiation accidents and their consequences

^{*} Millisievert (mSv) - derived from the unit of measurement of equivalent and effective radiation doses - sievert (Sv) (in the SI system). The non-systemic unit is ber (1 mSv is equal to 0.1 ber).

Exposure of persons involved in responding to emergency situations, liquidation of radiation accidents and their consequences, in excess of the limits of occupational exposure doses established <u>by Part One of Article</u> 6 of this Law, is permitted only on a voluntary basis, with mandatory monitoring and accounting of individual exposure doses of personnel and annual transmission of information on exposure doses received by such persons to the State Register of Ionizing Radiation Sources and Individual Exposure Doses.

For occupational exposure in an emergency exposure situation, reference levels are set below the effective radiation dose of 100 mSv.

Involvement in responding to emergencies, eliminating radiation accidents and their consequences of persons with medical contraindications, persons under the age of 18, and women of childbearing age is prohibited.

In order to save lives, prevent serious effects of ionizing radiation on human health, prevent the development of a radiation accident and exposure of a large number of people, it is permitted to establish a reference level of effective dose of radiation to the persons involved above 100 mSv, but not more than 500 mSv, with the consent of the persons involved who are fully informed about the health risks from exposure to ionizing radiation. The candidacies of the said persons must be determined in advance and agreed upon in accordance with the requirements of radiation safety standards.

Legal entities and individual entrepreneurs carrying out practical activities are responsible for protecting persons involved in responding to emergencies, eliminating radiation accidents and their consequences from the effects of ionizing radiation, and shall provide such persons in advance with appropriate and updated information about the health risks that may be associated with their participation in responding to emergencies, eliminating radiation accidents and their consequences, and about taking the necessary safety measures.

{Article 7 as amended by Law No. 3344-IX of 08/23/2023 }

Article 8. Intervention levels in case of radiation accidents

An intervention justified by the need to protect human life and health must be such that the reduction of harm caused by exposure to ionizing radiation by reducing the dose of radiation is sufficient to justify both the need for the intervention and the damage caused by this intervention.

Measures to shelter people are applied if, during the first two weeks after the accident, the expected cumulative effective radiation dose may exceed 5 millisieverts.

{Part two of Article 8 as amended by Law No. 2397-III of 26.04.2001 }

Temporary evacuation of people is carried out if, during the first two weeks after the accident, the effective radiation dose may reach 50 millisieverts.

{Part Three of Article 8 as amended by Law No. 2397-III of 26.04.2001}

Iodine prophylaxis is used if the expected absorbed dose of radiation to the thyroid gland from radioactive iodine accumulated in it may exceed 50 milligray* for children or 200 milligray for adults in accordance with the regulations established by the central executive body responsible for the formation of state policy in the field of health care.

{Part Four of Article 8 as amended by Laws <u>No. 2397-III of 04/26/2001</u>, <u>No. 5460-VI of 10/16/2012</u>}

{Part five of Article 8 was excluded on the basis of Law No. 2397-III of 26.04.2001}

{Note to Part Four of Article 8 as amended by Law No. 2397-III of 26.04.2001}

Chapter III PROTECTING HUMANS FROM EXPOSURE TO IONIZING RADIATION

1. Powers of the Verkhovna Rada of Ukraine to ensure human protection

Article 8 from the effects of ionizing radiation

The powers of the Verkhovna Rada of Ukraine to ensure human protection from the effects of ionizing radiation include:

determining the foundations of state policy in the field of human protection from the effects of ionizing radiation;

determination of the legal principles regulating relations in the field of human protection from the effects of ionizing radiation;

approval of limits on radiation doses to the population and personnel of facilities where practical activities are carried out;

{Paragraph four of Article 8 as amended by Law No. 3344-IX of 08/23/2023}

approval of the legal regime of radioactively contaminated territories;

{Paragraph five of Article 8 as amended by Law No. 5460-VI of October 16, 2012 }

approval of the amount of compensation for exceeding the annual basic dose limit for individual exposure;

{Paragraph six of Article 8 as amended by Law No. 3344-IX of 08/23/2023}

^{*} Milligray (mGy) - derived from the SI unit of absorbed dose of ionizing radiation - gray (Gy). The non-SI unit is rad (1 mGy is equal to 0.1 rad).

approval of the Regulations and personnel of the National Commission for Radiation Protection of the Population of Ukraine. The personnel of the National Commission for Radiation Protection of the Population of Ukraine shall exercise its powers until the Verkhovna Rada of Ukraine approves the new personnel of the National Commission for Radiation Protection of the Population of Ukraine.

{Paragraph seven of Article 8 as amended by Law No. 3344-IX of 08/23/2023 }

{Chapter III supplemented by Article 8 in accordance with Law No. 1248-VI of 14.04.2009}

Article 9. Powers of the Cabinet of Ministers of Ukraine, ministries, and other central executive bodies to ensure human protection from the effects of ionizing radiation

The powers of the Cabinet of Ministers of Ukraine to ensure human protection from the effects of ionizing radiation include:

approval of an action plan to reduce the level of exposure of the population to radon and its decay products, minimize long-term risks from the spread of radon in residential and non-residential buildings, in workplaces, and from any source of radon penetration from soil, building materials, or water;

approval of the state emergency response plan;

approval of a strategy for handling materials contaminated with natural radionuclides;

approval of the procedure for assessing the state of human protection from the effects of ionizing radiation and maintaining ecological passports of territories;

organization and supervision of the implementation of measures to protect humans from the effects of ionizing radiation in the relevant territories by regional state administrations;

approval of the procedure for creating a unified state system for monitoring and accounting of individual radiation doses;

approval of the procedure for registering sources of ionizing radiation, monitoring and accounting of individual radiation doses, regulations on the State Register of Sources of Ionizing Radiation and Individual Radiation Doses;

implementation of international cooperation in the field of human protection from the effects of ionizing radiation.

The powers of the central executive body that ensures the formation and implementation of state policy in the field of healthcare include:

ensuring the formation of state policy on protecting humans from the effects of ionizing radiation in the field of health care;

coordination of medical and sanitary measures and measures for preparedness, prevention, response and elimination of the consequences of emergencies associated with dangerous radiological factors in the field of health protection;

approval of radiation safety standards;

participation in international cooperation and promotion of the implementation of best international practices in protecting humans from the effects of ionizing radiation in the field of health care, ensuring the sanitary and epidemiological well-being of the population.

The powers of ministries and other central executive bodies that ensure the formation and implementation of state policy in relevant areas to ensure human protection from the effects of ionizing radiation include:

development and approval of a sectoral emergency response plan;

methodological guidance on the system of accounting and control of radiation doses to workers at enterprises and institutions;

organization and control of the implementation of measures to protect humans from the effects of ionizing radiation;

monitoring the safe conduct of practical activities;

development and implementation of rules, the implementation of which ensures the safety of practical activities.

The powers of the state regulatory body for nuclear and radiation safety include:

ensuring the formation and implementation of state policy in the field of nuclear energy safety and radiation safety, when handling materials with an increased content of natural radionuclides that are formed and/or produced as a result of activities not related to the use of nuclear energy;

ensuring the organization of the creation and functioning of a unified state system for monitoring and accounting of individual radiation doses;

development and approval of norms, rules and standards for nuclear and radiation safety;

implementation of state supervision in the field of nuclear energy safety and radiation safety, when handling materials with an increased content of natural radionuclides, which are formed and/or produced as a result of activities not related to the use of nuclear energy;

establishing requirements for emergency response plans at the facility level;

exercising the powers of the competent authority on the physical protection of nuclear material and nuclear facilities in accordance with the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, on the safe transportation of radioactive materials in accordance with the rules of nuclear and radiation safety during the transportation of radioactive materials, on the issues of emergency notification and information in accordance with the Convention on Early Warning of Nuclear Accidents;

implementation of international cooperation on protecting humans from the effects of ionizing radiation.

{Article 9 as amended by Law <u>No. 107-IX of September 18, 2019</u>; as amended by Law <u>No. 3344-IX of August 23, 2023</u>}

Article 10. Powers of local executive authorities to ensure human protection from the effects of ionizing radiation

The powers of local executive authorities to ensure human protection from the effects of ionizing radiation include:

making decisions in accordance with the legislation of Ukraine on the application of measures to protect members of the public from the effects of ionizing radiation in the relevant territory, who may be exposed to the harmful effects of ionizing radiation in the event of an emergency situation and radiation accidents, and constantly informing the public about them;

{Paragraph two of Article 10 as amended by Law No. 3344-IX of 08/23/2023}

organizing annual surveys in accordance with the established procedure to assess the state of human protection from the effects of ionizing radiation and maintaining an ecological passport of the territory;

implementation of organizational management of the system of accounting and control of radiation doses to the population in the relevant territory;

organization of control over the implementation of measures to protect humans from the effects of radionuclides contained in building materials;

approval of action plans to protect the population from radiation accidents and their consequences;

ensuring constant readiness of means of notifying the population of the relevant territory about the occurrence of a radiation accident;

organization and control over the implementation of measures to protect the population from radiation accidents and their consequences;

{Paragraph eight of Article 10 as amended by Law No. 3344-IX of 08/23/2023 }

providing the population, in their places of residence, with information on human exposure levels and measures for protection against the effects of ionizing radiation carried out in the relevant territory;

development and implementation of regional programs to protect humans from the effects of ionizing radiation;

notifying the population in the event of a radiation accident and informing about rescue and preventive measures in this regard;

{Article 10 is supplemented by a paragraph in accordance with Law No. 2397-III of 26.04.2001}

developing and approving emergency response plans in the relevant territory, keeping them up to date.

{Article 10 is supplemented by paragraph twelfth in accordance with Law $\underline{No.~3344\text{-}IX~of}$ 08/23/2023 }

Article 10

Of the National Commission for Radiation Protection of the Population of Ukraine

The powers of the National Commission for Radiation Protection of the Population of Ukraine include:

participation in the development of the state emergency response plan and its maintenance based on hazard and risk assessment;

providing scientific and methodological support:

functioning of a unified state system for monitoring and accounting of individual radiation doses;

development and implementation of state sanitary norms and rules for radiation safety, norms and rules for nuclear and radiation safety;

development of draft regulatory legal acts regarding the impact of radiation on the functioning of ecosystems and human health;

carrying out scientific and expert assessment:

research and other work to determine the level of exposure of the population to radon and its decay products;

minimizing long-term risks from the spread of radon in residential and non-residential buildings, in workplaces, from any source of radon penetration from soil, building materials or water;

projects of regional programs for human protection from the effects of ionizing radiation;

draft decisions on the scope of research on radiation doses to the population;

the state of protection of the population of Ukraine from the effects of ionizing radiation and providing recommendations to local executive authorities and local governments on its optimization.

{The Law is supplemented by Article 10 in accordance with Law No. 3344-IX of 08/23/2023 }

Article 11. Assessment of the state of human protection from the effects of ionizing radiation

Assessment of the state of human protection from the effects of ionizing radiation is carried out for the purpose of planning and implementing measures to protect humans from the effects of ionizing radiation and analyzing the effectiveness of these measures by local executive authorities.

The assessment of the state of human protection from the effects of ionizing radiation is carried out according to the following main indicators:

characteristics of radioactive environmental contamination;

the probability of radiation accidents, their size and possible impact on humans;

the degree of readiness for effective elimination of radiation accidents and their consequences;

analysis of radiation doses of individual population groups from all sources of ionizing radiation;

the number of people exposed above radiation dose limits;

{Paragraph six of part two of Article 11 as amended by Law No. 3344-IX of August 23, 2023}

analysis of measures to protect humans from the effects of ionizing radiation and compliance with norms and rules in this area in the relevant territory.

The results of the assessment are recorded annually in the ecological passport of the territory.

{Part Three of Article 11 as amended by Laws <u>No. 2397-III of 04/26/2001</u>, <u>No. 3344-IX of 08/23/2023</u>}

The form and procedure for maintaining the ecological passport of the territory are approved in accordance with the procedure established by law.

{Part Four of Article 11 as amended by Laws <u>No. 2397-III of 04/26/2001</u>, <u>No. 3344-IX of 08/23/2023</u>}

Article 12. Regional program for human protection from the effects of ionizing radiation

The regional program for the protection of the population from the effects of ionizing radiation is developed in accordance with the annual assessment of the state of human protection from the effects of ionizing radiation in the relevant territory and must include the following measures:

search and identification of sources and pathways that cause the effects of ionizing radiation on humans;

implementation of measures to neutralize sources and pathways that cause exposure to ionizing radiation on humans, and (or) protect humans from this exposure;

introduction of radiation control points for food products in markets and other places of mass sale;

organization of individual dosimetric measurement posts in accordance with the standards determined by the relevant central executive authorities;

providing the population with free consultations on protection against ionizing radiation, radiation control, and decontamination of household items;

{Paragraph six of part one of Article 12 as amended by Law No. 2397-III of 26.04.2001}

rental, repair, certification and maintenance of household radiation control devices;

creating conditions for conducting dosimetric surveys, radiometric and decontamination works at the request of the population.

{Paragraph eight of part one of Article 12 as amended by Law No. 2397-III of 26.04.2001}

The procedure for developing regional programs for protecting the population from the effects of ionizing radiation is determined by the Cabinet of Ministers of Ukraine, and their financing is carried out in accordance with the legislation of Ukraine.

Article 13. Obligations of legal entities and individual entrepreneurs regarding the protection of humans from the effects of ionizing radiation during practical activities

{Title of Article 13 as amended by Law No. 3344-IX of 08/23/2023 }

Legal entities and individual entrepreneurs who carry out practical activities are obliged to:

{Paragraph one of Article 13 as amended by Laws <u>No. 2397-III of 04/26/2001</u>, <u>No. 3344-IX of 08/23/2023</u>}

to carry out systematic monitoring of the radiation status of workplaces, premises, territory, in sanitary protection zones and observation zones, as well as emissions and discharges of radioactive substances:

develop justification for compliance with radiation safety standards for new (modernized) products, materials and substances, technological processes and production facilities;

plan and implement measures to ensure human protection from the effects of ionizing radiation;

to monitor and record individual radiation doses of personnel and annually transmit information on received doses to the State Register of Ionizing Radiation Sources and Individual Radiation Doses;

{Paragraph five of Article 13 as amended by Law No. 3344-IX of 08/23/2023 }

organize periodic medical examinations of personnel;

regularly inform personnel about the levels of ionizing radiation in the workplace and the value of the radiation doses they receive;

to timely inform executive authorities and local governments, state regulatory bodies for nuclear and radiation safety about the occurrence of emergency situations, violations of technological regulations that pose a threat to human safety;

ensure the implementation of the rights of citizens and their associations to provide information on the state of human protection from the effects of ionizing radiation.

Article 14. Obligations of legal entities and individual entrepreneurs regarding human protection in cases of radiation accidents

{Title of Article 14 as amended by Law No. 3344-IX of 08/23/2023 }

Legal entities and individuals - entrepreneurs who carry out practical activities, ensure constant readiness to respond to emergency situations and radiation accidents and to eliminate the consequences of radiation accidents in accordance with the requirements of norms and rules on nuclear and radiation safety, other regulatory legal acts and the conditions of permits obtained in accordance with the law. Such provision includes the presence of:

{Paragraph one of part one of Article 14 as amended by Laws <u>No. 2397-III of 04/26/2001</u>, <u>No. 3344-IX of 08/23/2023</u> }

a list of potentially possible radiation accidents and forecasts of their possible consequences with appropriate justifications;

plans for protecting personnel and the public from potential accidents and their consequences, agreed with the state regulatory body for nuclear and radiation safety and local government bodies and approved by legal entities or individuals and brought to the attention of personnel and the public;

{Paragraph three of part one of Article 14 as amended by Law <u>No. 5460-VI of October 16, 2012</u>}

means of alerting personnel and the public;

means of ensuring the elimination of the consequences of radiation accidents;

medical means of human protection against radiation exposure;

personal protective equipment;

means of individual dosimetric control;

emergency rescue formation from among the personnel.

In the event of a radiation accident, legal entities and individual entrepreneurs carrying out practical activities are obliged to:

{Paragraph one of part two of Article 14 as amended by Law No. 3344-IX of 08/23/2023 }

ensure the implementation of plans to protect personnel and the public from the impact of the accident;

inform the state regulatory bodies for nuclear and radiation safety, public health institutions that fall under the jurisdiction of the central executive body that ensures the formation and implementation of state policy in the field of health protection, local executive bodies and local self-government bodies about the occurrence of a radiation accident, and notify the population of territories where an increase in radiation levels is possible;

{Paragraph three of part two of Article 14 as amended by Law No. 3344-IX of 08/23/2023 }

take measures to provide medical assistance to victims of a radiation accident;

to take measures to prevent the spread of radioactive substances in the environment;

to conduct an analysis and prepare a forecast of the development of a radiation accident and changes in the radiation situation;

take measures to normalize the radiation situation during the elimination of the radiation accident.

Article 15. Ensuring human protection from exposure to radionuclides contained in building materials

Exposure of people in residential and industrial premises should not exceed the standards approved in accordance with the established procedure.

Human protection from exposure to radionuclides contained in building materials is ensured by the following measures:

selection of land plots for the construction of houses and structures, taking into account the level of radon release from the ground and the level of gamma radiation;

design and construction of buildings and structures taking into account protection against radon entering the air of these buildings and structures;

conducting production control over the content of radionuclides contained in building materials, commissioning of buildings and structures taking into account the level of radon content in the air of these buildings and structures and the level of gamma radiation;

operation of buildings and structures taking into account the level of radon content and the level of gamma radiation;

changing the nature of the use of buildings and structures, if the actual doses of human radiation exceed the standards approved in accordance with the established procedure;

a ban on the use of building materials and products made from them that do not meet the requirements for protecting humans from the effects of ionizing radiation.

Reference levels of radon concentration and gamma radiation from building materials in premises, as well as requirements for handling residues from the processing of natural radioactive materials into building materials, are determined by radiation safety standards.

{Article 15 is supplemented by part three in accordance with Law No. 3344-IX of 08/23/2023 }

Article 16. Ensuring human protection from exposure to radionuclides contained in food, food raw materials and drinking water

The content of radionuclides in food, food raw materials and drinking water cannot exceed the norms approved in accordance with the established procedure.

{Part two of Article 16 was excluded on the basis of Law No. 442-VII of 05.09.2013 }

The intentional addition of radioactive substances during the production of food products, animal feed, and cosmetics, as well as the import into or export from the territory of Ukraine of products containing radioactive substances, are prohibited.

{Article 16 is supplemented by part three in accordance with Law No. 3344-IX of 08/23/2023 }

Article 17. Ensuring the protection of a person during treatment and medical diagnostics

The use of any sources of ionizing radiation in medical practice must be carried out with the mandatory use of collective and individual protective equipment, control of limits on employee radiation doses, justification and optimization of medical radiation procedures.

{Part one of Article 17 as amended by Law <u>No. 3344-IX of 08/23/2023</u>}

The total potential benefit of medical exposure must exceed the possible harm that such exposure may cause to the health of a particular individual, taking into account the effectiveness, benefits and risks of available alternative non-radiation methods used for the same purpose (principle of justification of medical exposure).

{Part two of Article 17 as amended by Law No. 3344-IX of 08/23/2023 }

The application of the principle of justification of medical exposure involves three stages:

justification of new types of medical exposure before their general implementation in order to confirm that medical exposure brings more benefits to society than harm;

preliminary justification of individual medical exposure taking into account the specific goals of medical exposure and the health indicators of the person whose medical exposure will be carried out;

justification for the use of a specific medical radiation procedure for a specific patient, with a determination of the benefits outweighing the harms.

{Article 17 is supplemented with a new part in accordance with Law No. 3344-IX of 08/23/2023 }

Human protection from the effects of ionizing radiation during medical irradiation is carried out in compliance with the principle of optimization, which means maintaining radiation doses at the lowest possible level, which can be achieved taking into account social and economic factors, and consists in managing the patient's radiation dose.

{Article 17 is supplemented with a new part in accordance with Law No. 3344-IX of 08/23/2023 }

Patient radiation dose management is carried out through the use of diagnostic reference levels, which are a measure of the patient's radiation dose assessment as optimal, for a specific method of medical diagnostic radiological examination.

{Article 17 is supplemented with a new part in accordance with Law No. 3344-IX of 08/23/2023 }

The radiation dose received by a patient during a medical intervention must be registered, and information on the radiation dose must be stored in the archives of medical institutions for 50 years, and after the expiration of the specified period, transferred to the National Archival Fund.

The patient is provided, upon request, with complete information about the expected or received radiation dose and its possible consequences.

The patient has the right to refuse medical intervention related to his exposure, except when such intervention is related to the detection of dangerous infectious diseases.

For diagnostic purposes, diagnostic reference levels are used, which are approved by the central executive body that ensures the formation and implementation of state policy in the field of health care, and the state regulatory body for nuclear and radiation safety.

{Article 17 is supplemented by a part in accordance with Law No. 107-IX of September 18, 2019}

The import into the territory of Ukraine, production and commissioning of the following are prohibited:

X-ray machines intended for fluoroscopy, without an X-ray image intensifier;

new X-ray machines without a device for automated exposure and dose (dose rate) control;

devices for remote radiotherapy with a nominal beam energy (accelerating voltage) of more than 1 megaelectronvolt without a device for checking the main parameters of irradiation;

interventional radiology devices without a device or function to inform the doctor and persons performing medical exposure about the patient's radiation dose;

interventional radiology and computed tomography devices, including equipment for planning and performing medical examinations, without a device or function for informing the doctor and persons performing medical exposure about the values of the parameters of the operating modes of the specified equipment at the end of the medical examination, necessary for assessing the patient's radiation dose;

new non-radionuclide installations and devices that generate ionizing radiation, without a device to inform the doctor about the parameters necessary to assess the patient's radiation dose.

{Article 17 is supplemented by a part in accordance with Law No. 107-IX of September 18, 2019}

Article 18. System of control and accounting of radiation doses to the population

The system of control and accounting of radiation doses of the population is aimed at identifying critical groups of people depending on the conditions and place of residence or location of workplaces for whom the radiation dose limits may be exceeded, and registering individual radiation doses of

persons classified as critical groups. For the purposes of verifying compliance with the annual radiation dose limit of the population, an estimate of the effective and/or equivalent annual radiation dose for a representative person is used.

{Part one of Article 18 as amended by Law <u>No. 3344-IX of 08/23/2023</u>}

{Part two of Article 18 was excluded on the basis of Law No. 3344-IX of 08/23/2023 }

Individual radiation doses of people classified as critical groups are recorded in the district (city) radiation dose register, the maintenance of which is organized by local executive authorities.

Determination, accounting and control of radiation doses of personnel and the population are ensured by creating a unified state system of control and accounting of individual radiation doses. Ensuring the organization of the creation and functioning of this system is entrusted to the state regulatory body for nuclear and radiation safety.

{Article 18 is supplemented by part four in accordance with Law No. 5460-VI of 16.10.2012}

The procedure for creating a unified state system for monitoring and accounting of individual radiation doses is determined by the Cabinet of Ministers of Ukraine.

{Article 18 is supplemented by part five in accordance with Law No. 5460-VI of 16.10.2012}

Chapter IV COMPENSATION AND REMEDIES

Article 19. Compensation for exceeding the radiation dose limit

{Title of Article 19 as amended by Law No. 3344-IX of 08/23/2023 }

Compensation for exceeding the radiation dose limit is provided to persons residing or temporarily staying in the territory of Ukraine in cases of:

radiation caused by exposure to practical activities;

erroneous or unlawful exposure of patients during medical intervention;

forced consumption of food and drinking water contaminated with radionuclides;

radiation-hazardous living, working and studying conditions.

Compensation for exceeding the radiation dose limit is set at 1.2 non-taxable minimum incomes for each millisievert of exceeding the permissible radiation dose limit established by this Law.

{Part two of Article 19 as amended by Law <u>No. 3344-IX of 08/23/2023</u>}

The basis for paying compensation to individuals for exceeding the radiation dose limit is the fact of exceeding the annual basic radiation dose limit through no fault of the individual, recorded in the district (city) radiation dose register.

The procedure for providing compensation for exceeding the radiation dose limit is established by the Cabinet of Ministers of Ukraine.

{Text of Article 19 as amended by Law No. 3344-IX of 08/23/2023 }

Article 20. Compensation for damage

Compensation is subject to damage caused as a result of exposure to ionizing radiation to the life, health and property of people, as well as the property of individuals - entrepreneurs and legal entities.

{Part one of Article 20 as amended by Law No. 3344-IX of 08/23/2023 }

In the event of the death of a person resulting from exposure to ionizing radiation, the right to compensation for damage shall be vested in the persons who were dependent on the deceased or who were entitled to receive maintenance from him on the day of his death, as well as the child of the deceased who was born after his death.

The basis for compensation for damage caused by exposure to ionizing radiation is the establishment of the fact of causing such damage in accordance with the legislation of Ukraine.

Article 21. Ensuring compensation payments and reparation of damage

Payment of compensation for exceeding the limits of radiation doses and compensation for damage caused by exposure to ionizing radiation are provided at the expense of funds and/or property of legal entities and individuals whose practical activities resulted in such an excess.

{Part one of Article 21 as amended by Law No. 3344-IX of 08/23/2023}

Disputes regarding compensation payments for exceeding radiation dose limits and compensation for damage caused by exposure to ionizing radiation are considered in court.

{Part two of Article 21 as amended by Law No. 3344-IX of 08/23/2023 }

Article 22. Liability for violation of legislation on the protection of humans from the effects of ionizing radiation

Persons guilty of violating legislation on the protection of humans from the effects of ionizing radiation shall bear civil, administrative or criminal liability in accordance with the laws of Ukraine.

Chapter V INTERNATIONAL COOPERATION IN THE FIELD OF HUMAN PROTECTION FROM EXPOSURE TO IONIZING RADIATION

Article 23. International cooperation in the field of human protection from the effects of ionizing radiation

Ukraine participates in international cooperation in the field of human protection from the effects of ionizing radiation.

If international treaties of Ukraine establish norms other than those provided for by the legislation of Ukraine regarding the protection of humans from the effects of ionizing radiation, then the norms of the international treaty shall apply.

Chapter VI FINAL PROVISIONS

Article 24. Final provisions

- 1. This Law shall enter into force on the date of its publication, <u>Article 19</u> on January 1, 2000, and shall not apply to cases of exceeding the basic dose limit for exposure that occurred before the entry into force of this Law.
- 2. This Law does not apply to persons who have been exposed to ionizing radiation as a result of events that occurred outside Ukraine, unless such extension is provided for by international treaties of Ukraine.
 - 3. The Cabinet of Ministers of Ukraine within a two-month period:

submit proposals for consideration by the Verkhovna Rada of Ukraine to bring the laws of Ukraine into compliance with this Law;

ensure the adoption of regulatory legal acts provided for by this Law;

bring its regulatory legal acts into compliance with this Law;

to ensure that ministries and other central executive bodies review and repeal their regulatory legal acts that contradict this Law.

President of Ukraine

L. KUCHMA

Kyiv January 14, 1998 No. 15/98-VR

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