

# INTERNATIONAL LEGAL MECHANISMS OF LIABILITY FOR NUCLEAR DAMAGE

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**Annotation.** Based on the analysis of accidents in the nuclear sphere, many states have come to the conclusion of the need to develop international legal principles for the settlement of disputes related to accidents and the formation of a regime of responsibility for damage caused to the life and health of people and the environment. The unification of the efforts of many states to develop joint approaches to ensure the safe development of atomic energy allowed the creation of a complex international legal regime – “international nuclear law”.

The aim of the work is determination of the international legal bases of responsibility for causing nuclear damage.

The methodological basis of the study. The following methods of cognition were used in the research process: analysis and synthesis, generalization, dialectical, system-structural methods, formal-legal, legal-technical method.

Results. Various international organizations play an important role in the formation of nuclear law: the IAEA, the Atomic Energy Agency of the Organization for Economic Co-operation and Development (NEA OECD), WNA and others. The documents issued by the IAEA serve as guidelines for the development and approval of laws and other regulatory acts related to the safe use of atomic energy in the countries of the world.

Conventions on liability for nuclear damage were drafted in such a way that most of their provisions (especially the basic principles) were self-executing. Therefore, in principle, each participating state has the right to independently decide, on the basis of its constitutional or legal system, which approach it will use to bring its legislation in accordance with this or that convention: direct application of the provisions of the convention or preparation based on the text of the convention of the national law on nuclear liability.

Conclusions. Currently, in the issue of liability for nuclear damage, countries can be divided into two groups: one group – those that have adopted a special regime in the field of nuclear liability either by joining international conventions or by adopting national legislation; another group – countries that do not have such a special regime.

**Key words:** international legal responsibility, nuclear damage, IAEA, NPP, damages, Convention on liability for nuclear damage.

## 1. Introduction.

International legal regulation of issues of liability for nuclear damage is an important element of general legal support for the use of atomic energy for peaceful purposes and international cooperation in this field. This is due to the fact that possible accidents or acts of terrorism at the nuclear power plant can have global and long-term consequences, harming people's health and the environment. The proof was the results of liquidation of the consequences of accidents at the Chernobyl NPP and Fukushima NPP, which revealed significant deficiencies in ensuring nuclear safety, the system of urgent measures for liquidation of the accident, and issues of responsibility for causing nuclear damage[1].

## 2. Analysis of scientific publications.

In order to promote a global and effective regime of such liability, in September 2003, the IAEA established the International Group of Experts on Liability for Nuclear Damage INLEX[2].

In the same year 2003, the IAEA published the Handbook on Nuclear Law. "Implementing Legislation" is a practical guide for drafters of legislation, which for the first time brings together in a consolidated form the standard texts of provisions covering all aspects of nuclear law[3].

## 3. The aim of the work

is determination of the international legal bases of responsibility for causing nuclear damage.

## 4. Review and discussion.

At the IAEA Nuclear Safety Conference in June 2011, the "IAEA Nuclear Safety Action Plan" was reviewed and approved, which includes a section devoted to the need to strengthen the international legal framework of nuclear energy and, in particular, the development and application of international legal norms and obligations in this area[4].

The main international legal documents on liability for nuclear damage are currently represented in five main treaty-legal documents, which reflect the basic principles of liability for nuclear damage.

The first steps towards the harmonization of legislation related to the use of atomic energy and the creation of a single legal regime for regulating issues of liability for nuclear damage were taken in 1960. Then, under the auspices of the Organization for Economic Cooperation and Development (OECD), the Paris Convention on liability to a third party in the field of nuclear energy use. The countries of Western Europe became participants in this regional Convention: Belgium, Great Britain, Denmark, Finland, France, Germany, Greece, Italy, Norway, the Netherlands, Portugal, Spain, Sweden and Turkey.

The convention was developed taking into account the need to ensure sufficient and fair compensation to victims. The following basic principles were developed for the first time in the Paris Convention, on which all international agreements and most national legislation in the field under consideration are currently based:

- the absolute and exclusive responsibility of the operator (the organization that operates the nuclear installation);
- material and time limits of responsibility of the operating organization;
- the obligation to ensure financial coverage of one's responsibility in the form of insurance or other financial security;
- a guarantee of state intervention to satisfy claims, if the losses exceed the financial capabilities of the operating organization[5, p. 9-12].

In 1963, also under the auspices of the OECD, the Brussels Supplementary Convention was adopted, which provides victims of nuclear incidents with additional compensation from the state funds of the countries participating in the Paris Convention in the event that the compensation provided for by the Paris Convention turns out to be insufficient to compensate for damages[6].

Later, the Protocol of February 12, 2004 to the Paris Convention of 1960 (2004 Paris Convention) and the Protocol of February 12, 2004 to the Brussels Supplementary Convention of 1963 (Brussels Supplementary Convention) appeared. Only OECD member states can be participants in these Conventions[7].

In 1963, under the auspices of the IAEA, the Vienna Convention on Civil Liability for Nuclear Damage was adopted, the purpose of which was to establish a system of international legal responsibility based on the same principles as the regional conventions mentioned above[8]. In contrast to the Paris Convention, the circle of participants of the Vienna Convention is wider, as all member states of the UN, the IAEA or states that are developing nuclear energy can join it, in addition, in terms of financial requirements, the convention contains more flexible rules. However, the process of ratification of the Vienna Convention was delayed, and it entered into force only in 1977 (that is, 14 years after its adoption) after the deposit of the fifth instrument of ratification. Until now, the following countries have been parties to the Convention: Argentina (1964), Bolivia (1968), Egypt (1968), Cameroon, Cuba (1965), Peru, Trinidad and Tobago (1966) and the Philippines (1965).

According to the Vienna Convention, the liability of the operator for nuclear damage is absolute. The operator can be exempted from absolute responsibility only due to certain circumstances of force majeure – military actions, armed conflict, civil war or rebellion, i.e. the occurrence of which cannot be prevented not only by the operator, but also by the state. This list is contained in the Convention and is not subject to expansive interpretation.

The Convention provides for the establishment of a national limit of operator liability that may not be less than US\$5 million for each nuclear incident, and any limits of liability that may be established shall not include interest or legal costs awarded by a court in claims for nuclear damages. The national currency of the United States referred to in this Convention is the unit of account equivalent to the value of the United States dollar at its gold parity on April 29, 1963, that is, \$35 per troy ounce of pure gold[9].

These funds are intended to meet the demands of the victims both in the state of the incident and abroad. According to the Convention, operators of nuclear installations must also maintain insurance or other financial security covering their liability for possible nuclear damage. The Vienna Convention requires the adoption of national legislative measures, and in the event of a discrepancy, the one among them takes precedence.

In 1997, under the auspices of the IAEA, the Protocol on Amendments to the Vienna Convention (1997 Vienna Convention) was concluded. All states can be parties to this Convention[10]. The protocol has been open for signature since September 29, 1997, and only five countries (Argentina, Belarus, Morocco, Latvia and Romania) have become its participants.

According to the Vienna Convention on Civil Liability for Nuclear Damage of 1963, as amended by the 1997 Protocol, the term “nuclear damage” means: death or bodily injury; loss of property or damage to property; economic losses resulting from loss or damage; costs for measures to restore the environment, the condition of which has deteriorated; loss of income derived from economic interest in any application or use of the environment; the costs of preventive measures and the cost of further losses or damages caused by such measures; any other economic loss, except for any loss caused by the deterioration of the environment, if this is allowed by the general law on civil liability.

The protocol increases the minimum limit of liability for damages to 300 million special drawing rights (SDR). At the same time, a transitional amount of SDR 100 million can be established, which must be increased to SDR 300 million within 15 years[11].

In addition, the Protocol extended to 30 years the period for exercising the right to compensation for damages in case of death or bodily injury and expanded the scope of the Vienna Convention, including determining that the Convention applies to nuclear damage regardless of where it was caused.

Compensation for part of the damage that exceeds the limit of liability established for the operator must be guaranteed by the state on whose territory the accident occurred. At the same time, according to another important principle - financial security of responsibility: the operator of a nuclear installation, upon receiving a license, is obliged to provide a guarantee of the ability to compensate for nuclear damages that may be caused in the future.

At the same time, the Protocol allows natural and legal persons of states that do not have nuclear installations and are not parties to the Convention to be granted the same rights to receive compensation in the event of a nuclear accident as natural and legal persons of participating states.

The Vienna Convention of 1963 and the said Protocol shall be understood and interpreted together as a single text, which may be cited as the Vienna Convention on Civil Liability for Nuclear Damage, 1997. The Convention shall not apply to nuclear installations used for non-peaceful purposes.

In 1997, under the auspices of the IAEA and at the initiative of the United States, the Convention on Additional Compensation for Nuclear Damage (CCC) was concluded, its participants can be all participants of the Paris and Vienna Conventions and states that are not parties to the Paris or Vienna Conventions, but whose domestic legislation is in force complies with the principles laid down in these conventions. The CCA has been open for signature since September 29, 1997, but has not yet entered into force[12].

The adoption of these international legal documents became the most important frontier in the development of the international regime of responsibility for nuclear damage. The 1997 Protocol and the KDV provide for serious improvements regarding the possible amount of compensation, the scope of damages. In addition, the JCPOA provides the basis for a global regime with broad inclusion of nuclear and non-nuclear countries.

On September 21, 1988, in Vienna, at an international conference jointly convened by the OECD and the IAEA, with the aim of overcoming the contradictions arising from the simultaneous application of both conventions in the event of a nuclear incident, the Joint Protocol was approved, which created a single system based on the two conventions. The Protocol established a link between the Paris and Vienna Conventions through the mutual extension of the special regime of civil liability for nuclear damage provided for in each convention. The protocol expanded the application of both conventions, thereby ensuring the protection of victims living in the territory of countries that are parties to one or the other convention. In this way, a single civil law regime of responsibility for nuclear damage was created, uniting a large number of countries[13].

It should also be noted that other documents of international law have been developed. In 1962, the Convention on the Liability of Operators of Ships with Nuclear Power Plants appeared, which contains provisions similar to those of the Paris and Vienna Conventions. Later, in 1971, the Convention on Civil Liability in the Field of Maritime Transportation of Nuclear Materials was concluded, aimed at ensuring the application of the regime of liability for nuclear damage due to careless transportation[14].

After the accident at the Chernobyl nuclear power plant, the Convention on prompt notification of a nuclear accident, which entered into force on October 27, 1986, and the Convention on assistance in the event of a nuclear accident or emergency radiation situation, which entered into force on February 26, 1987, were adopted[15].

In addition, in 1994, the member countries of the IAEA adopted a new document - the Convention on Nuclear Safety, which became a single international law and extended its effect to countries where similar safety practices do not yet exist[16].

Each of the contractual and legal documents presented above has its own scope of application (although the definitions for the 1997 Vienna Convention, the 2004 Paris Convention and the 1997 KDV are practically the same). However, in general, they all apply to liability for nuclear damage caused as a result of a nuclear incident at a nuclear installation located on the territory of a Contracting Party, or as a result of a nuclear incident during the transportation of nuclear material from or to such an installation.

In contractual and legal documents on nuclear liability, the parties are obliged to bring their national legislation into compliance with the provisions of these documents in order to harmonize the national legislation of various parties in the field of nuclear liability, which is an essential basis for the creation of an international regime of liability.

Although the Contracting Parties have a certain freedom of action when developing national legislation on some issues, the contractual and legal documents establish a single basic regime of nuclear liability of the Contracting Parties. In addition, these contractual and legal documents establish agreed rules for resolving conflicts of legal norms and settling other procedural issues.

Ensuring compliance of national legislation with the provisions of liability conventions is reinforced by the requirement, provided in some contractual and legal documents (for example, the Vienna Convention and the 1997 CDV), to submit copies of national laws and regulations on nuclear liability to the IAEA for distribution to other parties. Further, each Contracting Party may object to the national law of the other Contracting Party on the grounds that it does not comply with the provisions of the Convention, resulting in the entry into force of the provisions of the Convention on Dispute Resolution[17].

Thus, to date, in international law, the obligation to compensate for significant cross-border damage caused by dangerous activities, even if the state has taken all possible measures to prevent such damage, has become a common norm. Each state itself determines the limit of liability for nuclear damage, but currently one of the main tasks remains ensuring the universality of the international regime of civil liability for nuclear damage. In the absence of a special international agreement between the parties, disputes about the occurrence of cross-border damages are resolved diplomatically through appeals to international courts and arbitrations.

A number of countries with advanced nuclear activities (for example, the USA, Australia, Canada, Japan) do not see the need to join either the Vienna or Paris Conventions, preferring to settle possible claims on a bilateral basis. In particular, the US considers the compensation for nuclear damage under these conventions to be completely insufficient and calls for joining the Convention on Additional Compensation for Nuclear Damage initiated by them[18]. Recently, Japan and Canada have announced that they are ready to ratify the WTO. At the same time, other countries such as Saudi Arabia, the United Arab Emirates and Kazakhstan preferred to join the Vienna Convention.

For many other countries located in areas of the world where there is no significant nuclear activity, the issue of responsibility for nuclear damage is not yet acute, states have the right to decide independently, in accordance with their constitutional principles, how to implement the regime of responsibility for damage. They can either make a decision on the direct application of the convention and, if necessary, on amendments to the current legislation, or on the adoption of new legislation to the extent that the resolution of this issue is left to the discretion of the national legislative body in the convention, or on preparation based on the text of the convention in national law in general. In the latter case, they must ensure that the content of the convention is accurately and fully reflected in national legislation.

National regulation on this issue is usually carried out in two ways: or within the framework of the basic law on the use of atomic energy, which contains special sections on civil liability for causing nuclear damage (Hungary, Germany, Spain, Italy, USA, Sweden, etc. .), or within the framework of a special law on nuclear liability for causing nuclear damage, adopted in the development of the law on atomic energy (for example, Austria, Belgium, Brazil, Great Britain, France, Ukraine).

Along with the mentioned sources, in most states, special acts are adopted for the development of laws. In Germany, in 1977, the Ordinance on financial security of responsibility was issued. Japan has the Nuclear Damage Compensation Agreements Act of 1961 (as amended), under which the state can act as a guarantor of the liability of the operator of a nuclear installation. In Spain, the mechanism of legal implementation of the Law on Atomic Energy was developed in a number of decrees and ordinances of 1967–1968[19].

In those states where there is no special regulation of liability for nuclear damage, such relations are regulated within the framework of general civil legislation.

Sometimes certain principles of international legal regulation are directly enshrined in the provisions of the Civil Code (for example, the Civil Code of Argentina reflects certain provisions of the Vienna Convention).

Most states with nuclear installations have national legislation on nuclear liability. For example, the Law of Ukraine dated December 13, 2001 No. 2893-III "On Civil Liability for Nuclear Damage and Its Financial Support" was adopted in Ukraine[20].

Countries such as Canada, South Korea and Japan are not signatories to the above conventions, but have national laws. A special case is China, which does not sign conventions and does not adopt its own laws.

## 5. Conclusions.

A state that embarks on the path of nuclear energy development should promote the development of global contractual relations, important for ensuring protection, responsibility and compensation for nuclear damage on an international scale during the operation of a nuclear power plant and transboundary transportation.

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