THE PROBLEM OF PEACEFUL USE OF NUCLEAR ENERGY IN MODERN INTERNATIONAL LAW

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Abstract

Nuclear energy is considered one of the most important social factors of the new era, i.e. it has no ancient history. Scientific research, extensive discussions and ideas for determining the conditions of its existence are put forward around this issue. The research and studies are based on the global importance of nuclear energy, its negative challenges and positive opportunities.. The struggle for energy resources, the optimization of the use of traditional energy carriers, as well as the development of new energy sources have long been the most important factor in the formation of modern international relations. The development and application of renewable energy sources, the operation of high-tech nuclear power plants, as well as the transition to new environmentally friendly fuels will significantly reduce dependence on traditional energy sources of oil, coal and gas exporters in the near future and lead to significant geopolitical progress in international relations.

Keywords: *nuclear energy, peaceful purposes, international, IAEA, environment, nuclear power plants, security, United Nations Organisation.*

It is obvious how the emergence of the nuclear phenomenon will affect the moral character of man [4, 8]. Given the global importance and threat in the environmental and economic context, it can be noted that in the presence of nuclear weapons, the development of man and society on Earth has entered a completely new stage. In this regard, J. Harrison proposes to develop a Strategy for the issue of unprecedented importance in the field of thought, knowledge, morality, spirituality, i.e. Humanity. This Strategy can serve as the most fundamental problem of science for the entire history of mankind. Perhaps the whole history of human knowledge is only a preparatory stage for the creation of our more general culture, the realization of which depends on the fact that we are preserved in the biosphere.

The scientific literature suggests that the last two thousand years of history have seen significant radical changes in the human race. The dropping of the atomic bomb on Hiroshima and Nagasaki in 1945, which resulted in the loss of human life, has already shown that there is a tendency in people's character to be hostile, destructive and to ignore the consequences of the step taken.

The real economic benefits of nuclear energy are not enough, and people are more inclined to use it for hostile and military purposes. High security and technological standards must be developed for the purely economic benefit of nuclear energy, which requires sufficient financial resources. For example, the costs of treating radioactive waste as a result of the Chernobyl and Fukushima catastrophes are greater than the economic benefits of these stations.

In any case, it should be noted that the use of nuclear energy is already a matter of global importance, and this area is regulated by international law and is subject to regulation at the highest level of international cooperation. As a result of this work, a large number of international legal acts on the regulation of nuclear energy have been adopted at different times.

The problem of non-proliferation of nuclear materials is one of the most important problems of our time. This problem is considered from at least two aspects: 1) military-political and 2) scientific-technical and economic development. An extreme, prohibitive form of political solution to this problem is defined as "nuclear discrimination."

The UN is the same age as the nuclear strike on Japan. However, the UN Charter does not address issues related to nuclear security. In this regard, K. Jaspers and D. Lakey[6] remind that the principles of nuclear neutrality have serious shortcomings. These principles also contradict Article 2.4 of the UN Charter's provision on "non-threat of force".

The UN and the IAEA actively support the proliferation and disarmament of nuclear weapons. In an interview with the popular German magazine *Spiegel* in 2004, former IAEA Secretary General Mohamed ElBaradei said that "the threat of nuclear war has never been greater, we will approach a nuclear war if we do not move to a new international control system" [10]. In his speech, the chairman of the Nobel Committee O. Myes explained why the Nobel Peace Prize winners in 2005 were the IAEA and Mohamed ElBaradei, because "when the threat of nuclear weapons increases again ... this threat We need to meet with the widest possible international cooperation".

Former United Nations Secretary-General Kofi Annan said at the 2005 Conference on Democracy, Terrorism and Security: "Nuclear terrorism is not a fantastic discovery, it is a completely possible reality [11] ". On the other hand, K. Annan stated in the same year: "Some will describe the spread of nuclear energy as a serious threat, while others will claim that the existing nuclear arsenals are a deadly threat. I urge you to accept that the right to disarmament, non-proliferation and peaceful use is a reality".

In general, both at the UN level and in other international and regional organizations, the use of nuclear technology for peaceful purposes is declared an inalienable right of states. Officials of international organizations have always stated that states should try to find long-term, effective ways to prevent the spread of nuclear energy and its peaceful use. It should be noted that there is no discrepancy between the control over the spread of nuclear energy and its peaceful use. By reducing the risk of the actual spread of nuclear energy, states can create more opportunities for the peaceful use of nuclear energy.

In the context of the nuclear world, the UN and the IAEA consider the need for scientific intervention, especially in the humanities and domestic reforms. The intervention of science in the relevant problem can change the way people think in this area, fill existing gaps and prevent future threats. Referring to Hegel's ethics and dialectics, it should be noted that the ban on the international division of labor in the nuclear field is a historical contradiction that must be overcome. It is no secret that many nuclear tests have been conducted so far and there is enough radioactive waste. In order to bury all this waste, first of all, huge international territories must be created in China, Mongolia, Kazakhstan, Canada and Russia. This seemingly positive and simple idea requires hundreds of billions of dollars (for example, the Yucca Mountain project) [2, 7-14].

At present, the states are trying to reach an agreement in this direction. As early as the beginning of the twentieth century, A. Gluksman wrote that the views of some Russian and Western political forces coincided in the creation of an international nuclear cemetery, and even planned to create such a special zone in Chelyabinsk [1]. In general, international nuclear zones can also be considered as an element of the nuclear non-proliferation system.

As we have already mentioned, nuclear energy is one of the important directions in international relations, interstate cooperation, one of the global problems of our time. Let's explain this situation in more detail.

The struggle for energy resources, the optimization of the use of traditional energy carriers, as well as the development of new energy sources have long been the most important factor in the formation of modern international relations.

In the context of the escalating international situation in countries that are traditional suppliers of hydrocarbons, most developed countries aim to reduce the absolute consumption of energy, mainly from fossil fuels. To a large extent, this is also due to the depletion of hydrocarbons and the unequal distribution of cheap resources to ensure energy security. In addition,

the negative impact of the results of the combustion of hydrocarbon fuels on the world's climate is one of the important factors.

Such an approach to fuel supply is, firstly, shaping the global trend towards new low-hydrocarbon energy. It should be noted that the transition to this trend has already begun. According to UN reports, global investment in renewable energy sources increased by 32% in 2010 and exceeded $ 211 billion. For comparison, the world investment in coal and gas power amounted to $110 billion [8].

According to UNEP, the use of renewable energy sources in the United States, as well as in Europe, continues to grow despite the economic crisis of 2008-2009, falling world oil prices and changes in foreign currencies. Even in 2009, more than 50% of new energy sources in the United States were created from renewable sources.

Second, in the long run, but in a very realistic way, the countries of the world are preparing the preconditions for the creation of a new, low-hydrocarbon sector of the economy. This area is designed for both suppliers and consumers of hydrocarbons. According to Nobuo Tanaka, Executive Director of the International Energy Agency, in 2030, 60% of electricity will be generated from renewable energy sources, the bulk of which will be provided by nuclear energy. According to estimates of other influential international organizations, by 2050, 80% of electricity will be generated from renewable energy sources [12].

Information and diplomatic "wars" have already begun at various levels in the post-Soviet space, as well as in many European countries, over the North and South gas pipelines from Russia. Iran's nuclear program, which is in constant conflict with the IAEA and major nuclear powers, has also exacerbated regional and global nuclear problems with the extreme foreign policy statements of the leadership of this great Islamic country. Russia's technical assistance in completing the construction of a nuclear power plant in Bushehr has complicated Russia's relations with the United States and leading European countries.

The Russia-Ukraine gas dispute in 2014 and the conflicts in the Middle East's major suppliers of hydrocarbons have forced countries that are major consumers of oil and gas to reduce their dependence on these raw materials.

The third is related to the assessment of environmental feasibility, specifically due to the "greenhouse effect" of gases emitted into the atmosphere, which causes significant environmental problems such as global warming. Along with the development of renewable energy since the beginning of the 21st century, the international community has begun to pay more attention to approaches to the global revival of the nuclear energy sector after the Chernobyl accident. At this very moment, on the eve of the 25th anniversary of the Chernobyl accident, on the other side of the Eurasian continent, after the accident at the Fukushima nuclear power plant in Japan, nuclear power was tested, which once again called into question the feasibility of its development. In particular, Germany and a number of other countries, which have taken a course to gradually limit nuclear energy, have become more determined.

In this context, a realistic description of the use of nuclear energy, its impact on international relations and the study of development prospects has become an urgent problem.

Despite the severe tests of nuclear energy in recent decades, the economic costs of extracting oil and gas and climate problems have forced the international community to reconsider its use of nuclear energy. Despite the last place in the ranking of world energy sources (10% of consumption), oil and gas prices are in the spotlight of news agencies, although nuclear energy is 17%, coal 39% and hydraulic energy 19%. Only 1% of electricity is generated by wind and solar plants [3]. Recent events in the world of nuclear energy give us reason to talk about its rapid development [5].

At present, a total of 375 kWh of electricity is generated in 437 nuclear reactors located in 32 countries (where one third of the world's population lives). The United States has the largest number of nuclear power plants: 104 nuclear power plants, which produce 20% of the country's

electricity, 59 in France, 5 in Japan, 30 in Russia, 23 in the United Kingdom, 20 in Canada, 19 in South Korea and 14 in India. . However, the distribution of electricity generation in nuclear reactors is not the same. On average, countries that generate electricity from nuclear power plants meet more than 25% of their needs.

Against the background of a pan-European strategy to gradually reduce dependence on traditional energy and gas suppliers in the field of energy, energy cooperation, especially between Russia and Germany, has led to significant changes in the foreign policies of both countries.

The IAEA is currently considering more than 60 orders for the construction of new nuclear power plants. More than 160 projects are already in the planning stage. According to various estimates, by 2030 the capacity of nuclear power will increase to 550 kW. In the middle of the XXI century, the total capacity of nuclear power plants in the world may reach 1,000 kW. Currently, 53 new nuclear power plants are being built in 15 countries, including 16 in China, 10 in Russia, 6 in India and South Korea, 2 in Japan, Ukraine and Taiwan. The United States plans to launch 30 more nuclear power plants in the next 10 years [7].

It can be argued that an important sector of world energy, such as nuclear energy, not only slows down growth, but is also characterized by stable development dynamics, which is mainly concentrated in developed industrial countries due to its technological complexity. The transition to renewable energy sources due to the abandonment of traditional energy sources and the use of nuclear energy are already developing.

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