

Legal Regime of the Chernobyl Problems in the USSR, Belarus, Russia and the Ukraine

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Introduction

In the night from 25th to 26th of April 1986, an accident with human casualties occurred at the fourth unit of the Chernobyl nuclear power plant (the Ukraine) with RBMK-1000 reactor, which has been working for three years. The consequences of this accident will produce negative effects on the ecology of the planet for many hundreds of years to come.

Despite the fact in the USSR that the capacities of the nuclear power plants were being increased year by year, and active nuclear weapon tests were conducted, the USSR was the only nuclear country in the world without its own laws regulating the use of nuclear energy and its safety. Meanwhile, in other countries such laws have been adopted a long time ago: in France in 1945, in the USA and Great Britain in 1946. At present all developed countries have nuclear legislation. The project of such legislation was drafted in the USSR two years before the accident at Chernobyl, however, even after the accident had happened, it was not implemented due to bureaucratic routine. There was no legal basis to be claimed in spite of dozens of accidents in nuclear objects both military and civil that occurred every year and caused human casualties too, as for example, in the Leningrad NPP in 1979. Nobody ever bore responsibility for these accidents. Besides, the authorities kept all of them top secret, in order not to let its own people, as well as the world community, know about such accidents.

It was natural that, after the explosion at the Chernobyl nuclear power plant, neither the USSR government nor the local authorities were ready to take legal action for the ecological, social and other problems caused by Chernobyl. The scale of the accident consequences and the changes that had taken place in the society by that time made simply impossible to keep silence about the fact of the catastrophe. The people in the affected territories continually demanded from the government legal settlement of their health problems, ecological problems in the affected territories, and compensation of material losses on the basis of legislative provisions.

In April 1990, the USSR Supreme Soviet reviewed the situation concerning liquidation of the Chernobyl accident consequences and noted: "The accident at the Chernobyl NPP in its consequences is the heaviest and nation-wide disaster of the present time, affecting destinies of millions of people residing in a vast territory. The ecological effect of the Chernobyl accident made the country face the necessity to solve

new, exceptionally complex, large-scale problems, affecting virtually all spheres of social life, many aspects of science and manufacturing, culture, ethical values and morality."

First legislation during the period of USSR

The first attempts in the USSR to find legal settlement of the ecological and other problems caused by Chernobyl were bylaws adopted jointly by the CPSU (Communist Party of the Soviet Union) Central Committee and the Council of Ministers of the USSR (the CPSU Central Committee was considered an authority). A Decree of the CPSU Central Committee and the Council of Ministers of the USSR, adopted 12 days after the accident - on the 7th of May 1986 - "On terms of payment and material provision of employees of enterprises and organisations in the Chernobyl NPP zone" has become the first document regulating the relations between the USSR government and the Chernobyl NPP.

For the first time since nuclear energy was put into use in the USSR some decades ago, the Ministry of Nuclear Power was founded. Along with its creation a legal subject had appeared, which could bear the responsibility for the activity in the sphere of "peaceful atom" implementation.

A number of other joint decrees by the CPSU Central Committee and the Council of Ministers of the USSR have been adopted in 1987-1988, that were aimed at solving various problems to liquidate the consequences of the severe accident. Only four years after the catastrophe, on the 25th of April 1990, the first decree on Chernobyl has been adopted directly by the legislative body of the country - the Supreme Soviet of the USSR - "On a comprehensive programme to liquidate the consequences of the accident at the Chernobyl NPP, and the situation related to this accident." This decree also authorised the first State Union-republican programme of immediate measures to liquidate the consequences of the accident for 1990-1992. The decree assigned the Council of Ministers of the USSR for a duty "to draft the Law on the Chernobyl Catastrophe and put it in to the Supreme Soviet of the USSR in the fourth quarter of 1990. To define in the Law the legal status of the catastrophe victims, the participants of the accident consequences liquidation and persons involved in the activities in the affected area, as well as those subject to involuntary resettlement; legal regime of the disaster area; discipline of population residence and activities;

military service; formation and functioning of state administrative bodies and public organisations in the affected area".

However, none of these measures have been implemented in time. A year later, in the next decree by the Supreme Soviet of the USSR from the 9th of April 1991, "On course of implementation of the decree by the Supreme Soviet of the USSR from the 25th of April 1990 'On a comprehensive programme to liquidate the consequences of the accident at the Chernobyl NPP, and the situation related to this accident'", it was mentioned that "there has been no possibility at present to adopt the Law on Chernobyl Catastrophe and the Law on Nuclear Energy Use and Nuclear Safety due to the delay in submitting the drafts of these laws."

Only in 1991, five years after the accident in Chernobyl, fully adequate legislative acts regulating the responsibility of the government for the damage inflicted to the citizens as a result of the activities of a nuclear enterprise have been adopted in the USSR. These are: the Law of Belorussian SSR - "On Social Protection of Citizens Affected by the Catastrophe at the Chernobyl NPP" from the 12th of February 1991, the Law of the Ukrainian SSR - "On Status and Social Protection of Citizens Affected by the Accident at the Chernobyl NPP", the Law of Russian Federation - "On Social Protection of Citizens Affected by Radiation in Consequence of the Accident at the Chernobyl NPP" from the 15th of May 1991, as well as the federal Law - "On Social Protection of Citizens Who Suffered in Consequence of the Chernobyl Catastrophe" which was adopted on the 12th of May 1991. These laws applied to the affected population as can be seen even from the names. They tackled with ecological problems only indirectly. However, in comparison to the legal vacuum that in fact existed during five years after Chernobyl, these laws were a significant step forward.

The scales of the Chernobyl catastrophe and the ecological damage were the initial motivation, especially for scientists and lawyers, on the base of which the first laws were adopted in Belarus, the Ukraine and Russia, allowing to solve the social and ecological problems of the Chernobyl. This is all the more important event as nobody has ever faced this kind of problems so far. Dozens of other nuclear accidents in the United States of America (Three Mile Island), England (Windscale), and in other states by no means could be compared to the global consequences of the release in Chernobyl.

Legal status of contaminated territories in the Ukraine

The first Law, "On the Legal Regime of the Territories Exposed to Radioactive Contamination in Consequence of the Catastrophe at the Chernobyl NPP" was adopted in the Ukraine on the 27th of February 1991 (with further alterations and

amendments introduced by the Law from the 17th of December 1991 and the Law from the 1st of July 1992). This law has given definitions to the territories affected by radioactive contamination after the explosion at the Chernobyl NPP for the first time, as well as the definition of the territory radioactive contamination zone categories.

Depending on the landscape and geochemical properties of soils, the values of excess of natural pre-accident radionuclide accumulation level in the environment, rates of possible negative effect on the health of the population, requirements on implementation of population radiation protection and other special measures, considering the general industrial, social and domestic relations, the territories affected as a result of the Chernobyl catastrophe are divided into zones. According to the Law, such zones are:

1. Restricted zone - residents have been evacuated from this territory in 1986;
2. Zone of unconditional (obligatory) resettlement - a territory subject to intensive contamination with long-lived radionuclides, with soil contamination density in excess of the pre-accident level by caesium isotopes from 15 Ci/km² and higher, or by strontium from 3 Ci/km² and higher, or by plutonium from 0.1 Ci/km² and higher, where the evaluated individual effective equivalent irradiation dose may exceed 0.5 rem/year in excess of the pre-accident dose;
3. Zone of guaranteed voluntary resettlement - a territory with soil contamination density in excess of the pre-accident level by caesium isotopes from 5 to 15 Ci/km², or by strontium from 0.15 to 3 Ci/km², or by plutonium from 0.01 to 0.1 Ci/km², where the evaluated individual effective equivalent irradiation dose may exceed 0.1 rem/year in excess of the pre-accident dose;
4. Zone of intensified radio-ecological control - a territory with soil contamination density in excess of the pre-accident level by caesium isotopes from 1 to 5 Ci/km², or by strontium from 0.02 to 0.15 Ci/km², or with plutonium from 0.005 to 0.01 Ci/km², where the evaluated individual effective equivalent irradiation dose may exceed 0.05 rem/year in excess of the pre-accident dose.

Legal status of contaminated territories in Belarus

The Republic of Belarus was next after the Ukraine to adopt a special Law, "On Legal Regime of Territories Exposed to Radioactive Contamination in Consequence of the Catastrophe at the Chernobyl NPP" on the 12th of November 1991. This law is aimed at decreasing of radiation impact on the population and ecosystems, at realisation of environment-recovery and protective measures, and at efficient use of natural, economic and scientific potential of these territories.

The Law regulates the regime of the contaminated territories, conditions of residence, economic and scientific-research activity in these territories.

According to the Law, the territories are divided into the following zones depending on the density of soil radionuclide contamination and impact on the residents (make note of the fact that the zone division in the Belorussian Law is different from that in the Ukrainian. The zoning has been carried out on the basis of the damage inflicted to the public by radiation.):

1. Zone of evacuation (restricted zone) - a territory around the Chernobyl NPP, from which the population has been evacuated in 1986 according to the existent safety regulations (the 30 kilometre zone and the territory subject to additional evacuation due to strontium-90 soil contamination density exceeding 3 Ci/km² and plutonium-238, 239, 240, 241 contamination higher than 0.1 Ci/km²);
2. First priority resettlement zone - a territory with soil contamination density by caesium-137 over 40 Ci/km², by strontium-90 over 3 Ci/km², or by plutonium-238, 239, 240, 241 over 0.1 Ci/km²;
3. Zone of subsequent resettlement - a territory with soil contamination density by caesium-137 from 15 to 40 Ci/km², or by strontium-90 to 3 Ci/km², or plutonium-238, 239,240, 241 from 0.05 to 0.1 Ci/km², where the annual average individual effective equivalent dose may exceed 0.5 rem/year, and other territories with lesser contamination density by the abovementioned radionuclides, where the annual average individual effective equivalent dose may exceed 0.5 rem/year;
4. Zone with right for resettlement - a territory with soil contamination density by caesium-137 from 5 to 15 Ci/km², or by strontium-90 from 0.5 to 2 Ci/km², or by plutonium-238, 239, 240, 241 from 0.02 to 0.05 Ci/km², where the annual average individual effective equivalent dose may exceed 0.1 rem/year, and other territories with lesser contamination density by the abovementioned radionuclides, where the annual average individual effective equivalent dose may exceed 0.1 rem/year;
5. zone of residence with recurring radiation control - a territory with soil contamination density by caesium-137 from 1 to 5 Ci/km², or by strontium-90 from 0.15 to 0.5 Ci/km², or by plutonium-238, 239, 240, 241 from 0.01 to 0.02 Ci/km², where the annual average individual effective equivalent dose may not exceed 0.1 rem/year.

Legal status of contaminated territories in Russia

The ecological problems of Chernobyl have affected 16 regions of the Russian Federation. Unfortunately this fact has become known to the general public only seven years after the accident . (In the first years after the explosion the republican programme of Chernobyl accident consequences liquidation dealt only with the Bryansk region and

Kaluga-Tula-Orlovsk spot.)

A special Law on status of territories, affected by radiation after the explosion at the Chernobyl NPP was not adopted, although it has been drafted already in 1993. However, one should note that there exists a Government Decree from the 25th of December 1992, "On Regime of Territories Exposed to Radioactive Contamination in Consequence of the Accident at the Chernobyl NPP".

The ecological problems of the contaminated territories are also regulated by a special article of the Law, "On Social Protection of Citizens Exposed to Radiation Effects in Consequence of the Catastrophe at the Chernobyl NPP", which was adopted by the Supreme Soviet of the Russian Federation on the 15th of May 1991 (with further alterations and amendments). The name of the article is: "Regime and Ecological Rehabilitation of Territories, Exposed to Radioactive Contamination in Consequence of the Catastrophe at the Chernobyl NPP".

The Law defines the zones of radioactive contamination. (They are also different from the Belorussian and Ukrainian zones. Every republic adopted the legal norms according to the ecological damage it has suffered due to the Chernobyl accident). The Law defines four zones of radioactive contamination: the restricted zone, the evacuation zone, the residence zone with the right for resettlement, the residence zone with privileged social-economic status.

Article 7 of the Law states that "the borders of these zones and the list of residence place within them are reviewed according to the changes in the radiation situation and other factors at least once in every five years".

1. The restricted zone (that was called the 30 kilometre zone in 1986-1987, then called the evacuation zone from 1988 until the adoption of the Law) is the territory around the Chernobyl NPP, as well as a part of the territory of the Russian Federation, contaminated by radioactive substances in consequence of the catastrophe at the Chernobyl NPP. The population has been evacuated from these territories according to the norms of radiation safety in 1986 and in subsequent years.
2. The resettlement zone - the part of the territory of the Russian Federation outside the restricted zone, with soil contamination density by caesium-137 higher than 15 Ci/km², or by strontium-90 higher than 3 Ci/km², or by plutonium-239, 240 higher than 0.1 Ci/km².
3. The residence zone with the right for resettlement as well is determined with the density of soil contamination. This territory of the Russian Federation outside the restricted zone and the evacuation zone with soil contamination density by caesium-137 from 5 to 15 Ci/km². Additional criteria for determination of the zone borders are established by the Government of the Russian Federation according to the density of radioactive contamination by other (except

caesium-137) long-lived radionuclides.

4. The fourth zone is the residence zone with privileged social-economic status. This is the part of the territory of the Russian Federation outside the restricted zone, the evacuation zone and the residence zone with the right for resettlement with radioactive soil contamination density by caesium-137 from 1 to 5 Ci/km².

Social aspect of the Chernobyl legislation

The Chernobyl legislation of the Ukraine, Russia and Belarus comprise two approaches to solve the global problems connected with the consequences of the catastrophe. The first is the abovementioned territorial approach, the second is the social approach. The laws designed for the social-economic protection of the citizens of Russia ("On Social Protection of Citizens Affected by Radiation in Consequence of the Accident at the Chernobyl NPP"), of the Ukraine ("On Status and Social Protection of Citizens Affected by the Accident at the Chernobyl NPP"), and of Belarus ("On Social Protection of Citizens Affected by the Catastrophe at the Chernobyl NPP") have been adopted in these republics of the USSR practically a year before its disintegration. The laws, designed for social protection of citizens in the three former republics of the USSR actually supplement the laws of these republics connected with the status of territories.

Privileges and compensations are determined according to the levels of the radioactive contamination density in the territories. Contamination with chemical and other toxic substances is taken into account.

The size of compensations and premiums is based on different principles in the Laws of Russian, the Ukraine and Belarus: in Russia it depends on the minimum salary, in Belarus it is a monthly premium of a certain size with further indexation, in the Ukraine it depends on the basic pay and salary. Other privileges and compensations are similar to a significant extent. In the Ukraine additional privileges and compensations are set for employees of health care, education and culture establishments.

The amounts of compensations and premiums in zones with right for resettlement and zones of obligatory evacuation indicate the fact that, in the system of social protection, resettlement in Russia of residents from the affected territories was given more importance than in the Ukraine and Belarus.

Criticism to the current Chernobyl legislation

After ten years from the Chernobyl accident, as a result of many diversified investigations of the catastrophe consequences and compensation of the damage inflicted to the affected people, various scientists, specialists and ecologists began to question the correctness of the "Chernobyl" laws of Russia, Belarus and the Ukraine in regard to the social protection of the population. A great number of studies

exposed the current system of social-economic and medical protection to harsh and, from the author's point of view, reasonable criticism. The main point is related to the problem of dose evaluation delivered to the population, according to which the decision on compensations and aid should be made. The analysis of the current Chernobyl legislation on the social protection testifies to the fact that it does not take into consideration several crucial aspects of this problem which is in fact the basis of all "Chernobyl" legislation. The problems in question here are the methods how to evaluate delivered dose, as well as to determine the consequences, in consideration of peculiarities of release and migration of radionuclides, irradiation duration, dose rate, etc.

According to Yu.O. Zitzer (a leading specialist of the State Committee on Environment Problems of Russia), the estimates of dose delivered to the population, underlying the existing legislation, are imperfect due to the following reasons:

1. The radiation risk of the population may vary largely.
2. Through the experience to evaluate the average individual dose for a certain group of the population, it is established that the reliability of dose value calculated in this way is very low due to a high spread in values; the number of inspection per one territory should be increased.
3. Although long-term investigations have been carried out up to now by the Institute of Biophysics, the Institute of Radiation Hygiene and other establishments of the Ministry of Health Care of the former USSR and Russia, the scope of dosimetric and epidemiological data is absolutely insufficient to specify the model parameters such as dose distribution in various regions; parameters of social-related biological effects e.g. mortality; differentiation of people's sensitivity to radiation, etc.
4. The last point — the differentiation of people's sensitivity to radiation is a very important factor influencing the total outcome of irradiation in regions. The radiation-sensitive part of the population shows an extremely high population morbidity.

Taking into account the facts given above, the following conclusions can be made: the evaluation of territory contamination according to the density of radionuclide deposition and, correspondingly the evaluation of individual dose — the so-called "zone" approach, which is being used today due to absence of another, is imperfect. Radionuclides migrate, are adsorbed and transform in the environment, thus changing both into less and significantly more dangerous elements.

"The Concept of Radiation, Medical and Social protection of the Population Exposed to Radiation Effects" was adopted by the Russian Commission on

Radiation Protection, and recommended by the Government of the Russian Federation for the revision and specification of the "Chernobyl law" provisions. In accordance to this concept, the "dose" approach is intended to replace the current "aerial" approach.

The problem of the "Chernobyl" legislation revision in the Russian Federation is also connected with another important social factor: a number of legislative acts and Government decrees have been adopted in Russia regarding social protection of citizens from different regions of the country affected by radionuclides as results of radiation accidents at industrial and military enterprises, or nuclear tests. The existing trend to spread the "Chernobyl law" onto other regions of Russia that have been affected by radiation impacts (activities and accident situations at the Industrial Association "Mayak" in Chelyabinsk region and Semipalatinsk Polygon) practically does not consider the peculiarities of radioactive contamination and radiation dose formation to the population. A direct application of the articles of the "Chernobyl law" for these situations is inadmissible.

The political aspect of the "Chernobyl" legislation also should be also noted. Very often the problem of social protection of citizens residing in the affected territories becomes exchangeable coins for the people who have been striving to power, especially in the period of various election campaigns. In many cases speculations to get confidence of the electorate in the Chernobyl zones becomes a pass for such people to get into big politics.

In 1994-1995 the Russian Duma (the Lower House) was involved in protracted struggle with the position of both the Government and the President in relation to the revision of the current law on social protection of citizens, residing in the affected territory. The Duma tried to change the Law aiming to worsen the status of such citizens, despite the fact that during the election campaign the deputy candidates promised to advocate them. The President of Russia had to apply to the Constitutional Court of the Russian Federation in connection with the fact that the law adopted by the Duma in 1995 discriminated the constitutional rights

and freedoms of citizens. Then the President and deputies agreed to make an amendment to the Law without decision of the Constitutional Court. The work for the amendment is not going up to now. Major point of the struggle between them is related with a question about the criteria that should be the basis to provide privileges to inhabitants living in the contaminated territories, the level of soil contamination or the value of irradiation dose. The President considers that, in any case, interests of inhabitants should not be reduced. Some deputies who are concerned with this Law try to decrease the number of the people receiving these privileges regardless of the fact that they are living in "dirty" zones. The final resolution of this problem is not yet obtained.

The Laws adopted in the former republics of the USSR - Russia, Belarus and the Ukraine have without doubt produced their positive effect in the society. However, due to the social and political situation which emerged in the republics after the disintegration of the USSR, these Laws are not implemented into reality always and everywhere. The scale of the catastrophe requires significant financial expenditures from every state affected by Chernobyl. In the given specific situation these states do not possess such financial means. Consequently, the Laws are often left unclaimed and millions of people are suffering in the affected territories under conditions that protection measures for the environment are not carried out in necessary scales, and the ecosystems are not rehabilitated to the full extent.

Nevertheless, we can be optimistic by the fact itself that the first fully functional acts aimed at legal solution of ecological problems of the global catastrophe at the Chernobyl NPP and social protection of citizens have been adopted in the former republics of the USSR. We can expect that in case of situation stabilisation in these countries, the adopted Laws will be revised and improved, will function to the full extent of their power, and will protect the Nature and people from the severe consequences of the most grave anthropogenic accident in the history of the Earth.