



Figure 2 – Results of 3D modeling of temperature changes in soil after 30 days

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ENVIRONMENTAL IMPACT ASSESSMENT AS ENVIRONMENTAL SAFETY ASSURANCE

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In the modern world, the need to prevent negative impact on the environment increases. The main prevention mechanism is the environmental impact assessment. The purpose of the study is to substantiate proposals for improving the legal regulation of environmental anthropogenic impact assessment, which is based on sustainability and environmental security.

Keywords: environmental impact assessment, ecological safety, environmental protection

The negative impact on the environment ensures environmental safety is one of the most pressing problems of our time. Obviously, in order to ensure environmental security is a component of national security, the state

should have coordination of all kinds of economic activity, in the process of which harmful impact on the environment is carried out. The state should use legal means to achieve the necessary level of environmental protection, ensuring favorable environmental conditions.

Environmental safety is a state of protection of the environment, life and health of citizens from threats arising from anthropogenic influences, as well as factors, processes and phenomena of a natural and a man-made nature.

In the National Security Concept of the Republic of Belarus, the creation of a national environmental protection system, which includes, along with other lines, an economic mechanism.

The main economic and environmental legal instrument for sustainable development is environmental impact assessment (EIA) and state environmental expertise as interrelated elements of the national procedure for assessing the possible impact of planned economic and other activities on the environment in the Republic of Belarus. But the most significant event, contributing to a preventive solution to the problem of nature conservation, was the conduct of the EIA.

Carrying it out at the design stage of the planned activity allows minimizing the negative impact on the environment even before the start of the economic activity. The EIA also aims to determine the types of environmental impact resulting from the planned economic and other activities, as well as the corresponding changes in the environment and the forecasting of its condition. As one of the basic principles of the EIA, as publically stated, is the right of stakeholders to directly participate in the decision-making process during the project discussion.

Modern state regulation of the use and protection of natural resources should be based on fundamentally new approaches to the environmental management system. Market relations cannot fulfill the function of developing optimal relations between society and the environment. The relationship of society to the use of natural resources must be built on the basis of recognition of the idea of sustainable development, conservation and reproduction of natural resources, since it is difficult to overestimate their enormous influence on the vital activity of all mankind.

It seems that, to date, there is a need, along with the improvement of legislation, the development of a long-term state strategy in the field of reducing the negative anthropogenic impact on the environment of the planned economic and other activities.

THE CONTENT OF TRITIUM IN SURFACE WATER TESTS ROUND THE CONSTRUCTION AREA OF THE BELARUSIAN NPP

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From the beginning of construction of the Belarusian NPP there was a need for carrying out monitoring researches of a surface water on the content of tritium. The presented results show that specific activity of tritium in water of open reservoirs around the construction of the Belarusian NPP corresponds to the consequences of bombe fallouts for these latitudes.

Keywords: tritium, average value of specific activity of tritium.

Tritium can be referred to most radiation-hazardous long-living nuclides which are capable to pollute the biosphere around direct placement of a source. During the work of the NPP tritium comes to surrounding environment with liquid discharges at normal operation, and also in gaseous emissions, and quickly migrates from places of primary contamination [1].

In connection with the construction of the Belarusian NPP, monitoring researches of a surface water on the content of tritium are being conducted now. In the first half of the year 2017 more than 40 direct measurements lasting 300–500 minutes with liquid scintillation radiometer of series TRI-CARB using МВН. МН 4143-2011 technique were executed.

The results of statistical data processing showed that for the data obtained on the TRI-CARB 2910TR radiometer a standard deviation of repeatability was 0,24%, and a standard deviation of an intermediate precision was 0,45 %. The received results confirm the accuracy and reliability of the obtained experimental data [2].

During this period the tests of water from the main water objects of the area of the site of the Belarusian NPP, namely the river Viliya (settlement Malye Sviryanki, settlement Mikhalishki); the river Gozovka (settlement Goza); the river Losha (settlement Hierviatty); the river Polpa (settlement Chekhi); the river Stracha (settlement Olkhovka); the well (settlement Markuna) were investigated.