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.

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**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 bomb fallout 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 МВИ. МИ 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 Malyye Sviryaniki, settlement Mikhalishki); the river Gozovka (settlement Goza); the river Losha (settlement Hierviaty); the river Polpa (settlement Chekhi); the river Stracha (settlement Olkhovka ); the well (settlement Markuna) were investigated.
In conclusion, it can be stated that the average value of specific activity of tritium for water reservoirs in 30 kilometer zone of construction of the Belarusian NPP is equal to 2.3±1.9 of Bq/l, what corresponds to global fallouts in these latitudes.

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CALCULATION OF CONCENTRATIONS OF POLLUTANTS IN THE ENVIRONMENT

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The execution of works on the production areas of enterprises is accompanied by the release of polluting substances into the atmospheric air. To the enterprises that are located near the residential zone, special environmental safety requirements are imposed. The method for calculating the concentrations of harmful substances in the air from industrial emissions is used in the design of enterprises, as well as in the regulation of emissions into the atmosphere of the reconstructed and operating enterprises.

Keywords: industrial enterprises, pollution sources, Calculation method of concentrations of emitted hazardous substances in atmospheric air OND-86, sanitary protective zone, the zone of pollution, the zone of influence, MatLab, computerized simulation.

Enterprises that are the sources of environmental and human health effects must be separated from residential buildings by sanitary protection zones. The size and the boundary of the zone of exposure to harmful substances are determined on the basis of calculations of the dispersion of pollutants in the atmosphere, taking into account that outside these zones the content of pollutants in the atmosphere should not exceed the air quality standards.

Standards of maximum permissible emissions (MPE) of enterprises for objects of environmental management facilities are established for each pollution source of the atmosphere, provided that emissions of harmful substances from this source, taking into account nearby sources, do not create a surface concentration of pollutants exceeding the maximum permissible values in the air of populated areas.

At designing of the enterprises, calculations of expected pollution of the atmosphere by industrial emissions are used. These calculations are carried out according to the "Calculation method of concentrations of emitted hazardous substances in atmospheric air (OND-86)", developed by the A.Voejkov Main Geophysical Observatory.

At present, all calculations of atmospheric pollution are carried out with the use of special software only – unified programs of calculation of air pollution (UPCAP), which are an annex to the methodology OND-86 (Leningrad, Gidrometeoizdat, 1987).

The disadvantage of such programs is that such tasks are solved as a "black box"; that is, the researcher-ecologist has to rely on the correctness of calculation and on what parameters and models are "hardcoded" in the programs. The calculation methods in such programs are not open completely, and the ecologist can’t verify the algorithms of computation.

The above disadvantages can be overcome using mathematical packages for computations in strict accordance with the requirements of OND-86.

The report presents the results of calculations and forecasts of the concentration of pollutants distribution in the atmosphere of the sanitary protection zone of industrial site No. 2 of the Rechitsa Metalware Plant with the method OND-86 using mathematical package Matlab. The distributions of all pollutants controlled at the enterprise are determined within the sanitary protective zone. The results of our calculations with the data given by the UPCAP "Ecologist" 4 are supposed to be compared in the future.