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 $2.3 \pm 1.9$ of Bq/l, what corresponds to global fallouts in these latitudes.

**BIBLIOGRAPHY**


**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.