
OPTIMIZATION OF INFORMATION INFLUENCES ON PROBLEMS OF CONSEQUENCES OF CHERNOBYL ACCIDENT AND QUANTITATIVE CRITERIA FOR ESTIMATION OF INFORMATION ACTIONS

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Consequences of Chernobyl NPP accident still very important for Belarus. About 2 million byelorussians live in the districts polluted by Chernobyl radionuclides. Modern approaches to the decision of after Chernobyl problems in Belarus assume more active use of information and educational actions to grow up a new radiological culture. It will allow to reduce internal doze of radiation without spending a lot of money and other resources. Experience of information work with the population affected by Chernobyl since 1986 till 2004 has shown, that information and educational influences not always reach the final aim - application of received knowledge on radiating safety in practice and changing the style of life. If we take into account limited funds and facilities, we should optimize information work. The optimization can be achieved on the basis of quantitative estimations of information actions effectiveness. It is possible to use two parameters for this quantitative estimations: 1) increase in knowledge of the population and experts on the radiating safety, calculated by new method based on applied theory of the information (Mathematical Theory of Communication) by Claude E. Shannon and 2) reduction of internal doze of radiation, calculated on the basis of measurements on human irradiation counter (HIC) before and after an information or educational influence.

Thus, the following mechanism of a quantitative estimation of efficiency of information and educational influences on radiating safety is offered.

1. Testing of radiation safety knowledge and internal dose of radiation measurement for the group.
2. Carrying out of information (educational) action.
3. Final testing and internal dose of radiation measurement.
4. Calculation of quantitative estimations of efficiency of information influence.
5. Ranging information actions on problems of consequences of Chernobyl accident on the basis of received quantitative estimations of efficiency of information influences and their updating.

This mechanism will allow to optimize an information policy on problems of Chernobyl accident.