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## MONITORING AND MANAGEMENT OF GEOENGINEERING REPOSITORIES OF RADIOACTIVE WASTE

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### Abstract

The paper provides the approach to the management of the repositories of radioactive waste, which include monitoring of contaminants migration into environment in case of natural or technogenic accidents which may influence on soil, subsoil waters and repository' installations structures. The aim of the research is the development of system of estimation of radioactive state of the environment in the area of radioactive repository, based on the cumulative data, the knowledge base, set of rules of production, logical deduction gear and conclusion building gear by means of uncertain and incomplete input data. It is proposed the use of several models for the spectral characteristics of radioactive pollutants migration. The evaluation of possible damages of repository containment is made. The heuristics for the radioactive waste repository expert system are developed. The proposed procedure of quality definition of decision making for the radioactive waste repositories management should take into account the reliability of information about the state of the radioactive repository.

Keywords: Radioactive waste; Repository; Expert system; Spectral characteristics; Fuzzy set; Heuristics.