CERNAVODA NPP RADIOACTIVE WASTE CARACTERIZATION PROGRAM

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Cernavoda NPP radioactive waste management program follows the latest industrial best practices ensuring the protection of personnel, public and environment, based on the principles and risk analysis developed by the International Atomic Energy Agency, European Community, and United States Nuclear Regulatory Commission.

Radioactive waste caracterization program performed at Cernavoda NPP is an important component of Radioactive Waste Management Program.

The characterization of radioactive waste consists in the evaluation of some "key parameters" of radioactive waste, such as: volum, mass, radioactivity, chemical properties, physical properties. For characterization of radioactive waste are used the following main techniques: knowledge and documentation of the process from which radioactive waste was generated, determination of radioactivity by non-destructive and destructive methods.

One of the most important objective of characterization program is to determine the total radioactivity that accumulates in the Intermediate Storage of Radioactive Solid Waste for compliance with the operating license, ensuring the necessary data for the evaluation and increase of radiological safety in all stages of the radioactive waste management process. Demonstration of compliance with waste acceptance criteria for various stages of radioactive waste management (processing, transfer, transport, intermediate storage, disposal) is based on the results of the characterization program.

In this presentation, relevant details related to the implementation and development of the radioactive waste characterization program from CNE Cernavoda (CANDU reactor) are summarized, such as: the term source, the collection and segregation of radioactive waste into streams depending on the system of origin, determining the radioactivity inventory for radioactive waste.