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Technical Means for Safe Management of Radioactive Waste Containing Tritium

The paper considers the possibility for separate safe storage of radioactive waste containing tritium using passive protection of concrete, clay, silica gel and additional engineering barrier in the form of container made of polymeric materials. It describes some physical properties of the container made of two polymeric materials for storage of tritium radionuclides separated from other radionuclides. The experts calculated the thickness of the container walls taking into account the ability of tritium diffusion as the main physical-chemical characteristics of tritium. The use of Teflon coating protects the plastic container in case of fire.

Keywords: radioactive waste, tritium, passive protection, engineering barriers, technical means for radioactive waste management, polymer material, double polymer container.