

Review of requirements for radioactive waste management including disposal in Tehran research reactor

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Abstract

The application of nuclear science and technology in research, medicine, industry and in the generation of electricity generate waste that requires management to ensure the protection of human health and the environment now and in the future, without imposing undue burdens on future generations. Radioactive waste may also result from the processing of raw materials that contain naturally occurring radionuclides. To achieve the objective of safe radioactive waste management requires an effective and systematic approach within a legal framework within each country in which the roles and responsibilities of all relevant parties are defined.

At present time, the prime source of radioactive waste in Iran is Tehran Research Reactor (TRR) and its related laboratories. TRR, which was constructed in 1967, is a 5 MW pool type and uses light water as moderator. Gaseous waste generates HEPA filters which is included in solid wastes. This research will focus on categorization and processing of radioactive waste in TRR.

Keywords: Research Reactor, Liquid waste, Radioactive waste, Disposal, Spent fuel