

Methodological Support of Tests of Transport Containers

In the Russian Federation, both operational and under construction nuclear power plants are implementing fuel assemblies with an increased mass of nuclear fuel and a design burnout depth, as well as nuclear fuel containing regenerated nuclear materials. In addition, new types of reactor installations are being built, which are also planned to use new types of nuclear fuel.

Deep-burnt highly enriched spent nuclear fuel and prospective fuel have increased radiation characteristics and residual heat generation, which give rise to certain difficulties when transporting it to centralized handling facilities for further storage or processing.

To ensure the safety of handling the above-mentioned spent nuclear fuel, some work on the development and implementation of containers used for the transportation and storage of spent nuclear fuel is currently underway. The compatibility of transport containers sets with the requirements of Federal norms and regulations in the field of atomic energy use is confirmed by carrying out estimates and tests of transport packaging sets for various mechanical and thermal effects that may occur during storage and transportation of spent nuclear fuel.

SEC NRS, as the scientific and technical support organization of the regulatory body (Rostekhnadzor), provides methodological support for conducting these tests from the preparation stage to the stage of confirming the compliance of transport containers with the requirements of Federal norms and regulations in the field of atomic energy use.

The report presents the experience of SEC NRS providing scientific and technical support to Rostekhnadzor in terms of methodological support for testing transport containers.

Country or International Organization

Instructions

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