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Preliminary results of qualification tests for LEU fuel for research reactors IVG.1M and IGR of the National Nuclear Center of the Republic of Kazakhstan

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ABSTRACT

Preliminary results of qualification tests of experimental low-enriched fuel intended for use in research reactors IVG.1M and IGR operated by the National Nuclear Center of the Republic of Kazakhstan are given.

Two WCTC-LEU experimental channels have been installed in the core of the IVG.1M reactor. Currently two test cycles have been passed (18 start-ups with total energy release in the reactor 359,2 MW×hour).

The characteristics of structural materials and experimental low-enriched fuel intended for the IGR reactor are tested in off-the-reactor conditions. Preparation of in-reactor fuel tests - LEU for the IGR reactor is being carried out.

A contract was signed for the manufacture of experimental devices for testing in the WWR-K reactor of HEU ICR fuel.

The final design of the experimental devices being discussing between NNC, INP and Argonne National Laboratory.