STATUS OF URAL CENTER FOR RADIATION HARDNESS TESTING

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The report covers the current status and development horizons of the RFNC-VNIITF radiation facility set, i. e. Ural Center for Radiation Hardness Testing. Currently the center includes a fleet of pulsed nuclear reactors, neutron generators, electron accelerators, and isotope γ -facilities [1]. Their characteristics are summarized. The development of the Center is based on new particle accelerators designed for modelling space and atmospheric radiation. The main characteristics of the new modelling facilities, their operating principles, and the current status of their manufacturing are given. The main scientific and technological challenges related to the development of facilities are reviewed, and the paths to solve them are outlined. The deadlines for launching the facilities in the beam generation mode are specified. The proposals on diversification of the Center to include nuclear medicine are given.

References

1. Andreev, S. A. RFNC – VNIITF experimental base. Testing facilities. Current status and prospects for development [Text] / S. A. Andreev, N. M. Vagina, A. E. Lyzhin et al. // Proceedings of XIII Interindustry Conference on Radiation Resistance held at FSUE «RFNC – VNIIEF». In 4 vol. – Sarov : RFNC – VNIITF, 2021. – Vol. 1. – P. 200 – 216. (in Russian).