

A. Abdullaiev¹, S. Bozhko², V. Krasnorutskyi¹, R. Latorre³, V. Tatarinov¹, N. Shumkova⁴,
A.Shepitchak²

¹ *Science and Technology Establishment “Nuclear Fuel Cycle”, National Science Center “Kharkiv Institute of Physics and Technology”, Kharkiv, Ukraine*

² *State Nuclear Regulatory Inspectorate of Ukraine, Kyiv, Ukraine*

³ *Pacific Northwest National Laboratory, Richland, USA*

⁴ *National Nuclear Energy Generating Company “Energoatom”, Kyiv, Ukraine*

Ukraine Nuclear Fuel Qualification Project (UNFQP)

The paper considers the development stages and results of a set of organizational, scientific and technical decisions on the implementation of a new nuclear fuel from an alternative supplier, Westinghouse Company, to Ukrainian NPPs with VVER-1000 type reactors. Testing of six trial fuel assemblies of the Westinghouse Company (FA-W) during SUNPP Unit 3 Cycles 17 – 20 (2005 – 2010) and 42 FA-W of the reload batch during Cycles 21-24 (2011-2014) confirmed compliance with design parameters, integrity and reliability of a new fuel during a four-year operation cycle.

Keywords: fuel for VVER-1000, diversification, fuel assemblies, licensing, operation.