

Thermo-Hydraulic Behaviour of Coolant in Nuclear Reactor VVER-440 Under Reactor Pool Filling Conditions

Juraj Paulech^{1, a)}, Justín Murín¹, Vladimír Kutiš¹ and Gabriel Gálik¹

¹Department of Applied Mechanics and Mechatronics, Institute of Automotive Mechatronics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Ilkovičova 3, 812 19 Bratislava, Slovak Republic.

^{a)} Corresponding author: juraj.paulech@stuba.sk

Abstract. The paper presents the numerical simulation of thermo-hydraulic behaviour of coolant in nuclear reactor VVER-440 under reactor pool filling conditions. Temperature distribution and mixing of coolant with different temperatures during filling process are discussed.