IJS-HRA – A Method for Human Reliability Analysis

Marko CEPIN

„Jožef Stefan" Institute, Ljubljana, Slovenia

Abstract

The Human Reliability Analysis (HRA) is a systematic framework, which includes the process of evaluation of human performance and associated impacts on structures, systems and components for a complex facility. The objective of the paper is to present the IJS-HRA method and the results of an example study. IJS-HRA is a method, which is a method for evaluation of the human error probabilities of human actions within the probabilistic safety assessment of the nuclear power plants. It is developed based on integration of several important features of previously developed methods. The resulted human error probabilities, which are calculated with application of the method, are used in the example probabilistic safety assessment. A part of the obtained results are presented, which show that the contribution of human factor is still an important contributor to risk in spite of a wide automation, which took place in recent decades. In addition, the most important human failure events are identified, which are candidates for simulator training, which will consequently reduce their human error probability and contribute to improved safety.

Keywords: *Human Reliability Analysis, Risk, Safety, Nuclear.*