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Abstract

The main goal of this Nordic Nuclear Safety Research (NKS) council project is to produce guidance for how to use human reliability analysis (HRA) to strengthen overall safety. This project is intended to work across (and hopefully diminish) the borders that exist between human reliability analysis (HRA) and human-system interaction, human performance, human factors, and probabilistic risk assessment at Nordic nuclear power plants. This project consists of two major phases, where the initial phase (phase 1) is a study of current practices in the Nordic region, which is presented in this report. Even though the project covers the synergies between HRA and all other relevant fields, the main focus for the phase is to bridge HRA and design. Interviews with 26 Swedish and Finnish plant experts are summarized the present report, and 10 principles to improve the utilization of HRA at plants are presented. A second study, which is not documented in this preliminary report, will chronicle insights into how the US nuclear industry works with HRA. To gain this knowledge the author will conduct interviews with the US regulator, research laboratories, and utilities.

Key words human reliability analysis; design; nuclear power plant; Nordic

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