

Title	Human Reliability Guidance - How to Increase Synergies Between Human Reliability, Human Factors, and System Design & Engineering. Phase 2: The American Point of View Insights of How the US nuclear Industry Works With Human Reliability Analysis
Author(s)	Johanna Oxstrand
Affiliation(s)	Vattenfall Ringhals AB
ISBN	978-87-7893-300-3
Date	December 2010
Project	NKS-R / HRA GUIDANCE
No. of pages	40
No. of tables	1
No. of illustrations	0
No. of references	18
Abstract	<p>The main goal of this Nordic Nuclear Safety Research Council (NKS) project is to produce guidance for how to use human reliability analysis (HRA) to strengthen overall safety. The project consists of two sub-studies: The Nordic Point of View – A User Needs Analysis, and The American Point of View – Insights of How the US Nuclear Industry Works with HRA. The purpose of the Nordic Point of View study was a user needs analysis that aimed to survey current HRA practices in the Nordic nuclear industry, with the main focus being to connect HRA to system design. In this study, 26 Nordic (Swedish and Finnish) nuclear power plant specialists with research, practitioner, and regulatory expertise in HRA, PRA, HSI, and human performance were interviewed. This study was completed in 2009. This study concludes that HRA is an important tool when dealing with human factors in control room design or modernizations.</p> <p>The Nordic Point of View study showed areas where the use of HRA in the Nordic nuclear industry could be improved. To gain more knowledge about how these improvements could be made, and what improvements to focus on, the second study was conducted. The second study is focused on the American nuclear industry, which has many more years of experience with risk assessment and human reliability than the Nordic nuclear industry. Interviews were conducted to collect information to help the author understand the similarities and differences between the American and the Nordic nuclear industries, and to find data regarding the findings from the first study. The main focus of this report is to identify potential HRA improvements based on the data collected in the American Point of View survey.</p>
Key words	human reliability analysis; design; nuclear power plant