

January 17, 2014

MEMORANDUM TO: Edwin M. Hackett, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Richard P. Correia, Director */RA/*
Division of Risk Analysis
Office of Nuclear Regulatory Research

SUBJECT: TRANSMITTAL OF DRAFT REPORTS ON HRA METHODS
DEVELOPED BY THE STAFF IN RESPONSE TO SRM- 061020,
"HRA METHODS DIFFERENCES"

The SRM-M061020, dated November 8, 2006, directed the ACRS to, "work with the staff and external stakeholders to evaluate the different human reliability models in an effort to propose a single model for the agency to use or guidance on which model(s) should be used in specific circumstances."

Over the past several years, the staff has met with the Advisory Committee on Reactor Safeguards (ACRS) and its Subcommittee on Reliability and Probabilistic Risk Assessment to discuss the staff's effort in developing an integrated human reliability analysis (HRA) method. The staff last met the ACRS Subcommittee on January 14, 2013. To support the January 15, 2014 Subcommittee meeting, I am forwarding Enclosure 1 that provides a summary of the staff's work progress since the last meeting and Enclosure 2 that provides names and ADAMS numbers of the documents prepared by the staff for the meeting.

The staff has developed three major products for the agency to use in HRA applications. The first product, draft report NUREG-2114, "Building a psychological foundation for human reliability analysis," serves as the scientific basis for HRA method development. The second product, documented in the draft report, "A generic HRA methodology for NPP applications," is a generic methodology based on the psychological foundation and is intended to be tailored for any HRA application in nuclear power plants. The third product, an Integrated Decision-tree Human Event Analysis System (IDHEAS) for internal, procedural events, was developed by the NRC staff and EPRI with the intention of reducing HRA variability when analyzing internal, procedural events. In addition to these three draft reports, the staff also documented the efforts of external reviews of the reports and preliminary testing of IDHEAS. All of the draft reports and the supplementary documents can be found in the ADAMS package.

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The staff discussed the changes to the draft reports made since January 2013, and the supplementary documents with the Subcommittee on Reliability and Probabilistic Risk Assessment on January 15, 2014. The enclosed summary paper and all of the documents in the ADAMS package are being forwarded for the ACRS use and information.

Enclosures:

As stated

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Enclosures:
As stated

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