

SRM-061020 on HRA methods: Progress and status in 2013

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SRM report Vol 1: Cognitive foundation for HRA

Tasks from last ACRS meeting	Activities performed	Outcome (draft reports)	Outstanding issues
Conduct peer review	Peer review: We sent the report to 6 reviewers and 4 reviewers sent back comments	SRM Vol 1 Supplement 1.1 - Summary of external review and revision.docx	None
Address peer-review comments	All the comments were discussed by the authors and addressed in the report revision	SRM Vol 1 Cognitive foundation for HRA 12-15-2013.doc	None
Plan for 2014: Publish the report			

SRM report Vol 2: A generic HRA methodology

Tasks from last ACRS meeting	Activities performed	Outcome	Outstanding issues
Further develop the methodology, especially the quantification part	We refined the overall framework and redeveloped the quantification model; the model still needs more work	Revised report: SRM Vol 2 - A generic HRA methodology for NPP applications 12-20-2013.docx	Need expert elicitation for HEP values
Pilot the methodology in Level-3 PRA application	We implemented the generic methodology to a portable quantification model, referred to as SPAR-H+, and piloted it with a SAMG example	SRM Vol 2 Appendix – Applying SPAR-H+ to SAMG 12-20-2013.docx	
Plan for FY2014: Complete the methodology and SPAR-H+ development and test SPAR-H+			

SRM report Vol 3: The IDHEAS method for internal at-power events

Tasks from last ACRS meeting	Activities performed	Outcome	Outstanding issues
Revise the report	The team thoroughly revised the report to address ACRS and reviewers comments as well as suggestions from the initial testing, and refined the report to make it flow better. Two examples demonstrating the implementation of the method were added to the report.	Revised report: SRM Vol 3 - IDHEAS for internal, at-power events 10-28-2013.docx	1) Dependency remains as an unsolved problem. 2) Several decision trees still do not have HEP numbers.
Expert elicitation of the HEPs	Expert elicitation was completed	The process and results are documented in Appendix D of the SRM Vol. 3 IDHEAS report. The use of human performance data in expert elicitation is documented in the report: SRM Vol 3 Supplement 3.3 - Leveraging Existing Human Performance Data for Quantifying the IDHEAS HRA Method.doc	Experts were unable to judge the HEPs for several decision-trees.
External review of the report	Five experts reviewed the report and four sent back written comments.	The process, comments, and how the comments were addressed are documented in the report: SRM Vol 3 Supplement 3.4 - Summary of Peer Review of IDHEAS and Comments.pdf	Some comments belongs to the future Users' Manual thus they were not addressed in the revision.
Test the method	One analyst initially tested the Sep-17-2012 version of the report using a real event and provided suggestions for revising the report / method. Two analysts independently tested the late version of the method using the scenarios in the US HRA empirical study.	Three testing reports documented the process and results of the testing. One of them was based on an early version of IDHEAS report therefore we are not submitting it ACRS. 1) SRM Vol 3 Supplement 3.1 - IDHEAS Testing Report A 09_18_2013_HL.docx 2) SRM Vol 3	EPRI and NRC were both limited in budget in conducting the test.

		Supplement 3.2 - IDHEAS Testing Report B on LOFW-SGTR by AW.pdf	
Develop an User's manual	The team reformatted the method report into a manual format to make the method to be easily implanted. This manual is intended to be used by NRC staff to test the method.	IDHEAS testing manual – SRM Vol 3 Supplement 3.5 - IDHEAS Testing manual_09_30_2013.docx NOTE: This manual is only for temporal use by NRC staff testing the method, it is not the User's Manual.	A final user's manual shall be developed only after adequate testing.
Plan for FY2014: 1) Complete HEPs of the decision-trees; 2) Perform limited method testing using NRC region staff; 3) Revise the method report for final publication.			