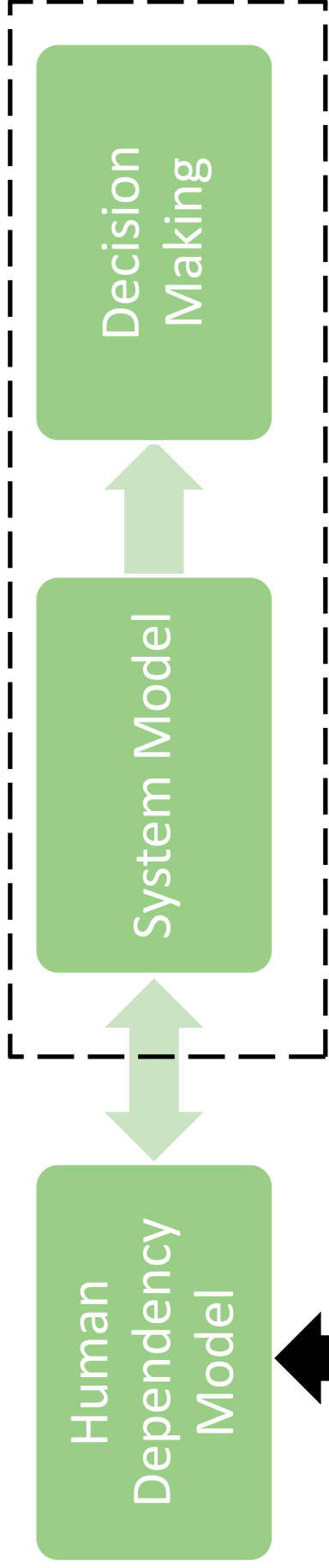


# Industry Efforts on Addressing Minimum Joint Human Error Probability

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# Research Overview



## Model

- **Select examples**
- Evaluate examples using various existing methods (SPAR-H, EPRI HRA Methodology, IDHEAS, etc.)
- Literature review
- HFE Decomposition
- Come to consensus model for “**best estimate**”

## Process

- Recommended sensitivity studies for JHEPs
- How results of JHEP sensitivity studies can be used in decision making

# Attributes of JHEP evaluation process

- Provide a value that leads to appropriate risk rankings based on the current state of knowledge
- Provides tangible risk insights
- Workload for analysis should be commensurate with risk insights
- Provide a "trigger" to identify potentially important scenarios
- Provide guidance on evaluation and meaning of uncertainty *in context of application*
  - Uncertainties should not drive a decision without further consideration

## Risk-informed, not Risk-Based

Important to remember that *Completeness Uncertainty* is not only an HRA issue, and PRA is not the best “tool” to account for such uncertainty in decision making.

What do we do with completeness uncertainty in other areas? We rely on other principles, such as Defense in Depth, Safety Margins, Quality Assurance and Performance Monitoring to minimize the impact of completeness uncertainty. Analogous principles can be used for HRA.

# Schedule

Task	Task Description	Time Frame
1	Choose Examples of Low/No Dependency to Evaluate	March - May
2	Evaluate Examples for Dependency	June - July
3	Provide Updated Guidance	August/September
3a	Provide guidance on HFE decomposition for dependency analysis	
3b	Consensus dependency model	
3c	Guidance on performing “reasonableness check”	
3d	If not applying a strict floor, how do you use sensitivity studies to enhance decision making?	
3e	Meet with NRC to discuss results	
3f	Document in update to 1021081	
3g	Provide written methodology describing EPRI Dependency Analysis method	

**Next Dependency Full Committee Meeting: July 31<sup>st</sup>**

# Questions