

NRC's Approach to Resolve HRA Challenges for FLEX

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Challenge Using Current Methods for FLEX

- Limitations of current methods
 - Mostly designed for and based on data for control room actions
- HRA is needed for various scenarios and environments
 - Actions performed outside the control room
 - LPSD Actions
 - Level 2/3 PRA actions

NRC's HRA Needs for Crediting FLEX



- Support risk assessments
 - SDPs, NOEDs, licensing, incident investigation
- Update SPAR models
 - Using FLEX to support Level 1/2/3 PRAs
- User friendly
 - In order to support quick-turnaround assessments

NRC's Plan to Address Challenges



- 3 tiered approach
 - Ultimate goal to develop a user-friendly HRA approach for FLEX actions
- Tiers
 - 1) Expert Elicitation
 - 2) Plant Field Data Evaluation
 - 3) Advanced SPAR-H capability

Plan to Address Challenges in Crediting FLEX



1) Expert Elicitation

- Expert elicitation to look at common FLEX decisions/actions

2) Plant Field Data Evaluation

- Use current plant field work data to generate surrogates for similar FLEX decisions/actions
- Need volunteer plants to provide data

3) Develop Advanced SPAR-H Capability

- Use IDHEAS-ECA as basis for developing a user-friendly HRA method

Path Forward

- Develop and document NRC approach
 - Supported by the Office of Nuclear Regulatory Research
 - To be used in NRC's risk-informed decision making processes
- Engage industry on their approach
 - Communicate any concerns
 - Continue to hold public meetings to discuss concerns (as necessary)