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Improving Fire PRA Realism for Regulatory Applications

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Topics

- Improved fire PRA realism through NFPA 805 regulatory reviews
- Methods and techniques to improve realism are available to industry
- Potential for future fire PRA insights exists through non-NFPA 805 reviews
- Improvements in fire PRA realism will continue

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Insights from NFPA 805 LAR Reviews

- Realism improved by NRC/industry interaction through staff reviews
- Extent of realism depends on strategy employed by licensee
- Staff approved 7 fire PRA FAQs since beginning NFPA 805 reviews

Licensees Can Employ Current Technology To Improve Realism

- Improve understanding of plant
 - Open cabinets to refine estimate of HRR
 - Perform more extensive cable tracing
- Use existing analytical tools more completely
 - Apply tools in NUREGs more fully
 - Perform more detailed fire modeling

Applications Other Than NFPA 805

- No fire PRA realism insights yet for non-NFPA 805 regulatory applications
 - Staff requests confirmation that acceptable fire PRA methods used (e.g. 50.69)
 - Other applications (e.g. RICT) may require more fire PRA review

Staff Continues to Improve Realism

- Staff is working towards completion of 3 fire PRA FAQs with industry
- Many new fire PRA FAQs recently submitted by industry
- Staff has an active fire research program
 - NRR participates in working groups, and has endorsed NUREGs to indicate regulatory acceptance



Key Messages

- The staff continues to actively pursue improvements in fire PRA realism
- Methods and techniques to improve realism are available to industry
- Improving realism is not always the same as reducing conservatism
