



Emergency Preparedness Applied Research

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Emergency Preparedness (EP) Applied Research

- In the past the staff conducted applied research to more fully understand the technical basis of EP oversight, including:
 - Effectiveness of evacuations
 - Alternate protective action strategies
 - Risk quantification of emergency action levels
 - Risk quantification of EP program elements
 - Modeling of EP in consequence analyses



EP Research Benefits

- Updated guidance on protective action strategies
- Updated guidance for evacuation time estimate (ETE) studies
- Integrating ETEs into protective action strategies
- Integrating EP into regulatory analyses

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Future Research

- The staff is planning research studies in 2015 and beyond in the areas of:
 - Public protective actions in the intermediate phase of emergency response
 - Analysis of techniques and assumptions used in ETE studies

USNRC
RIG 2015

Intermediate Phase Response

- Offsite response organizations (ORO) are well-practiced in early phase response
- Enhance understanding of response after radiological releases are controlled
- Research to improve understanding of practices
 - Support modeling assumptions in consequence studies and regulatory analyses
 - Share best practices with FEMA and OROs

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ETE Research

- Research to enhance guidance for next ETE studies (2020 census)
 - Examine the efficacy of manual traffic control
 - Research impact of shadow evacuation
 - Importance of variable assumptions
 - Study trend toward shorter ETEs
 - Study evacuation distance assumption
 - Quantify non-evacuating public



Schedule

- Expect research to begin in 2015
- NUREG/CR publication by 2017-8
- Revision of ETE guidance by 2019 for use in 2021



Future Research

- Looking to the future to identify applied research
- Expand understanding of the emergency preparedness planning basis
- The staff invited utility and ORO speakers to provide potential areas of study



Thank You

Questions?

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