

# ***Offsite Response Organization Capabilities and Practices for Protective Actions in the Intermediate Phase of Emergency Response***

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**FEMA Region V Radiological Emergency Preparedness Program  
Annual Program and Scheduling Meeting**

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# ***ORO Intermediate Phase Actions Study***

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- Offsite Response Organizations (ORO) have well practiced capability for early phase response in support of nuclear power plant emergency preparedness programs.
- Response after the accident has stabilized (i.e., radiological releases are controlled or identified) is not well understood by NRC.

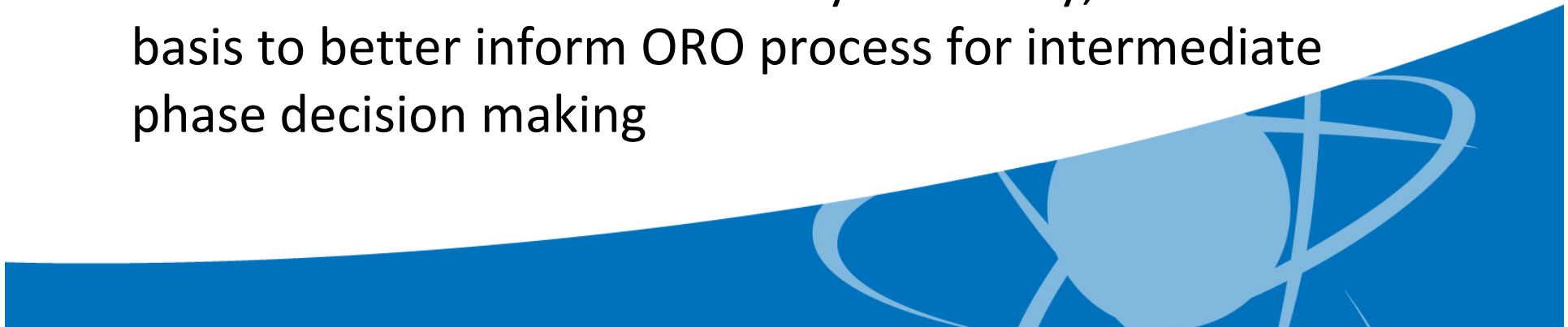


# *Intent of Study*

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- **Not** to drive regulation, seek changes to offsite oversight, or evaluate any ORO.
  - **May** identify best practices to be shared.
- Determine whether several assumptions made in consequence analyses are, or are not, realistic.
- Infrequent ingestion pathway exercises probably do not give enough usable data.
- Conduct interviews on a strictly voluntary, non-attribution basis to better inform ORO process for intermediate phase decision making



# Questionnaire – Subjects

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- Interviewees will be provided a fact sheet in advance – purpose; suggested functional area representation; request applicable plans/procedures be available for consultation.
- Focus Areas:
  - Evacuation Beyond the Plume EPZ
  - Hot Spots Beyond Evacuated Areas
  - Relaxation of Evacuation and Relocation Orders
  - Food Condemnation or Embargo
  - Water
  - Best Practices



# Questionnaire – Example 1

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## HOT SPOTS BEYOND INITIALLY EVACUATED AREAS

- Would the State rely primarily on Federal assets to perform “hot spot” survey functions? Note that this may involve a wait of 24-36 hours.
  - Yes
  - No, State would rely primarily on its own assets
  - No, State would rely primarily on contracted assets
  - No, State would rely primarily on mutual aid assets
  - N/A, State will not seek identification of hot spots



# Questionnaire – Example 2

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## RELAXATION OF EVACUATION AND RELOCATION ORDERS

- What are the criteria for relocation after initial evacuation?
  - 2 rem (20 mSv) projected does first year, 0/5 rem (5 mSv)/year in subsequent years [current EPA protective action guide]
  - 5 rem (50 mSv) over 50 years [former EPA protective action guide]
  - Other (explain)



# ***Questionnaire – Example 3***

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## **FOOD CONDEMNATION OR EMBARGO**

- Will food crops and livestock be released from the food control area?
  - Yes, if shown to be contaminated at a level below the criteria
  - Yes, if shown not to be contaminated at any detectable level
  - No, all food in the initial food control area will be condemned and destroyed to ensure public confidence in the State's agricultural industry



# Interview Methods

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## ➤ By order of preference:

- Face-to-face meeting with full interview group
- Remote meeting with full interview group
- Face-to-face interviews with state representative(s) attending a conference
- Group elicitation *en masse* as part of a conference program
- Written submission of completed questionnaire

## ➤ Full interview group:

- State Emergency Management Director
- REP Program Manager
- Department of Agriculture
- Department of Public Health
- Radiation Protection
- Public Information Officer
- Office of the Governor (if possible)





# *Interview Targets*

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- Goal of interviewing 20 States
- At least one interview for each FEMA Region with a commercial nuclear power plant

**If you have suggestions—or are interested in arranging an interview for your state—please let us know. Contact information is at the end of this presentation.**



# Timeline

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- Task 1 – Complete questionnaire: September 2015
- Task 2 – Review of FEMA Ingestion Pathway Exercise AARs: December 2015
- Task 3 – Conduct Interviews of Cognizant ORO Decision Makers: August 2016
- Task 4 – Documentation: January 2017



# ***Final Deliverable***

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- Produce a NUREG/CR document suitable for NRC publication.
- The document is expected to:
  - advance NRC understanding of ORO practices and capabilities.
  - inform guidance.
  - provide a technical basis for assumptions used by NRC to model protective actions in consequence studies and regulatory analyses.



# ***Questions?***

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