



# **Nexus Between Protective Actions and the Evacuation Time Estimate**

National Evacuation Conference  
February 4, 2010  
Robert Kahler, Chief

# About the NRC

- Mission
- Who are we?
- Where are we?

# Evacuation Research

- NRC Evacuation Study
- Hurricanes Katrina and Rita
- Alternative Protective Actions

# Protective Actions

- Evacuation Time Estimate (ETE)
- Protective Action Decision
  - Evacuation
  - Shelter-in-Place



**Updating Evacuation Time Estimate  
(ETE) Guidance  
Office of Nuclear Security and  
Incident Response**

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# Introduction

- The NRC mission is to regulate commercial and institutional uses of nuclear materials including nuclear power plants.
- The overall responsibility of the NRC is to protect public health and safety.
- The NRC maintains an Emergency Preparedness Program and Incident Response Program to ensure the agency, licensee, Federal, State and local stakeholders are prepared and capable of responding to a nuclear incident involving NRC licensed facilities or materials.

# Emergency Preparedness

- The objective of NRC Emergency Preparedness is to ensure that the nuclear power plant operator is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency.
- Key protective action strategies used in emergency planning are shelter-in-place and evacuation.
  - Each of which may be the appropriate protective action depending upon the site specific and accident specific conditions.

# Protective Action Decision

- For offsite response organizations (OROs) to make the most appropriate protective action decision, it is necessary to understand how long an evacuation may take to move individuals out of the plume exposure pathway emergency planning zone.
- To determine how long an evacuation may take, Evacuation Time Estimates (ETEs) are prepared as part of the emergency planning process.

# ETE Guidance Update

- The NRC is in the process of drafting updated guidance to support development of ETEs.
- The NRC is also currently in Rulemaking which includes requirements regarding ETEs
- Mr. Jeff Laughlin has led the NRC efforts in updating the ETE Guidance Criteria and will discuss this in greater detail.



# Commercial Nuclear Power Plant Evacuation Time Estimate (ETE)

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# About the NRC

- Mission
- Who are we?
- Where are we?

# Emergency Preparedness

- NRC Emergency Preparedness and Incident Response Program
- Emergency Preparedness Objective
- Performance Expectation

# Protective Action Decision Making

- Plume Exposure Pathway Emergency Planning Zone
  - 10 Mile EPZ
- Key Protective Action Strategies
  - Shelter in Place
  - Evacuation
- Protective Action Decision Making Process
- Evacuation Time Estimates (ETEs)

# ETE Guidance Update

- Emergency Preparedness Rulemaking
- Draft ETE Guidance Document