# EMERGENCY PREPAREDNESS WHAT'S WRONG?

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## What's Wrong?

# NRC's Basic Assumptions Underlying Emergency Preparedness Are Flawed

## **Projected Release**

## NRC:

 Biological impact and amount likely to be released minimized

## What's Wrong?

- PAGs not based on BEIR VII
- Ignores potential releases from large scale accidents - e.g., spent fuel pool fire; accident interaction between pool and reactor; core
- TMI releases misrepresented

## Affected Area - "Key Hole"

## **NRC**:

 Airborne emissions only affect 2 miles around site, and a "key hole" from 2 to 10 miles

## What's Wrong?

- Based on simplistic straight-line, Gaussian plume model; not suited complex sites (non-temporal, nonspatial).
- Need: advanced variable models and met. towers downwind

## **Dispersion - 10 mile EPZ**

## NRC:

- Airborne radioactive releases rapidly disperse to "safe" levels What's Wrong?
- Local meteorology/geography e.g., sea breeze, plume over
   water, gravity drainage,
   stagnations, reversals are likely
   to contain, not disperse, plume

## Notification

## **NRC**:

Primary: sirens, no backup power.
 Backup: 45 min. to notifiy

## What's Wrong?

- Sirens: Not heard inside; not mitigate equipment failure/LOOP
- Need redundant, e.g., reverse geocoded 911, reader boards; IPAWS; EAS
- Backup: same capability primary

#### **Evacuation Times Estimates**

## NRC:

Update ETE when population EPZ or ERPA < 90% or >110% current ETE What's Wrong?

- Ignores other impacts on ETE –
  e.g., changes % children & infrastructure; shadow evacuation
- Preparation/ETEs based on "best case" scenarios, e.g., not peak traffic

## Perception - Public Response

## NRC:

- Most people will follow directions
   What's Wrong?
- Public fears radiation > natural disasters - will respond differently
- Public: No confidence FEMA/NRC
- Sandia survey -methods unsound
- Public <u>and</u> local responders believe plans won't work

## "Flexibility"

## **NRC**

- "Flexibility," not requirements
   What's Wrong?
- Public protection requires real performance-based standards.
- "Reasonable assurance" requires proof that protective measures work, not simply "complying" with "flexible" regulations.

#### **Biennial Exercises**

## NRC:

- 6 yr/cycle; allows no offsite PAR What's Wrong?
- Allow drills without General Emergency
- Need 8 yr. cycle for less predictability and more variable scenarios, e.g., fast breaking, infrastructure failures, evenings, holidays, unannounced

#### **Hostile Action Based Exercises**

## **NRC**

- Hostile action one test in 8 years
   What's Wrong?
- Incorporate HAB into NRC triennial Force-on-Force drills as tabletop component
- All drills should include PARs, and more realism, e.g., multi-pronged attacks, LOOP

#### **EOFs Consolidated Facilities**

## **NRC**

- Not require near-site facility
   What's Wrong?
- EOFs should be close to site; have access to real-time information from plant; enable face-to-face interaction between decisionmakers

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## **Going Forward**

- For those of us near a nuclear power plant, plans are important.
- We ask the Commissioners to respond to the specific concerns Pilgrim Watch raised today.
- We need continued dialogue with you and Staff; and, going forward, equal participation in the process.