

***EMERGENCY  
PREPAREDNESS  
WHAT'S WRONG?***

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# ***FUKUSHIMA'S LESSONS***

***Wake up Call or Snooze Alarm?***



# ***WHAT'S FUNDAMENTALLY WRONG?***

**# 1**

**Rules Lack Specificity**  
**Requirements**

# ***RULES PROVIDE FLEXIBILITY LACK ACCOUNTABILITY***

## **Capability Based Rules =**

- ***Licensee given flexibility***
- ***Licensee saves money***
- ***Licensee no real accountability***

## **Performance Based Rules =**

- ***Enforceable/Accountability***
- ***Public Safety First***

# ***WHAT'S FUNDAMENTALLY WRONG?***

**#2**

**What Rules Do Not Address**

***Until the basic issues are faced-  
no “reasonable assurance”***

# ***EMERGENCY PLANNING ZONE 20/25 MILES***

- ***NRC advised U.S. citizens in Japan within 50 miles to evacuate***
- ***NRC says advice was an ...  
“ABUNDANCE OF CAUTION”***
- ***Why not the same “ABUNDANCE OF CAUTION” for citizens here?***

# ***DOSE PROJECTIONS***

## ***What's Wrong?***

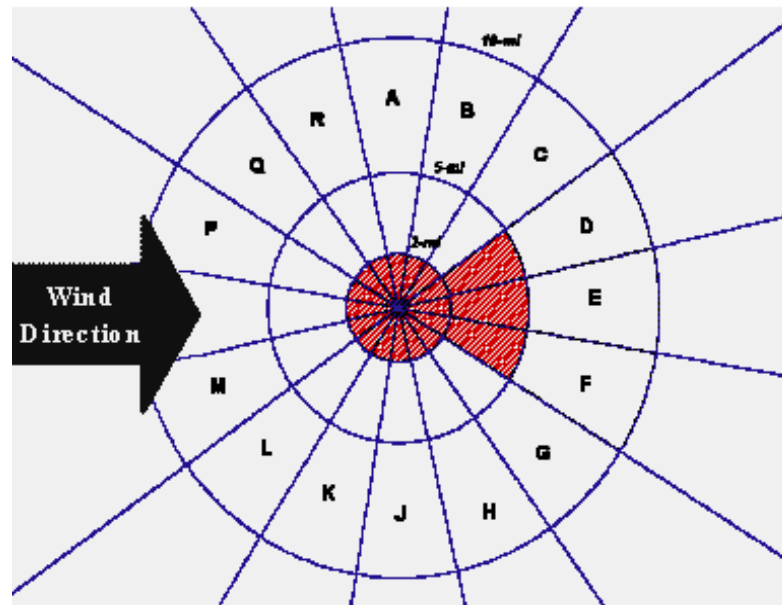
***Likely Amount & Impact Radiation  
Released Minimized***

- ***PAGs not based on BEIR VII***
- ***Large accidents ignored, e.g.***
  - ***spent fuel pool fire***
  - ***hydrogen explosions***
  - ***core or containment breach***
  - ***more than 1% fuel failure***

# ***PLUME MODELING***

## ***What's Wrong?***

### ***Key Hole***





# **PLUME MODELING**

## **What's Wrong?**

- ***Plume modeling based simplistic straight-line, Gaussian plume; not suited for complex sites (non-temporal, non-spatial)***

## **What's Needed?**

- ***Advanced variable models and multiple meteorological towers for both pre-planning & response***

# ***NOTIFICATION***

## ***What's Wrong?***

### ***Require Multiple Redundant Systems & Backup***

- ***Sirens- outdoor alert***
- ***Reverse 911- indoor alert***
- ***Electronic Reader Boards***
- ***Emergency Alert System***

# ***PROTECTIVE ACTIONS EVACUATION***

## **What's Wrong?**

- ***Reception Centers equipped for only 20% population.***

***Where will 80% get monitored, decontaminated, serviced?***

- ***“Shadow Evacuation” ignored***
- ***ETEs based “best case” scenario***

# ***RADIOLOGICAL PROTECTION***

## **POTASSIUM IODIDE (KI):**

- support stockpiling to 20 miles (bioterrorism act, 2002)***
- require both tablets & liquid KI for young children***

## **3-M TYPE MASKS:**

- require stockpiling both adult & children's sizes in schools/shelters***

# ***EMERGENCY WORKERS***

## ***What's Wrong?***

- ***Communications: Require interoperability***
- ***Protective Gear: Require protective clothing/masks & training for its use***
- ***REWMDs: Radiological Emergency Worker Monitoring Decontamination Centers - require multiple centers per EPZ, located > 20 miles from reactor***

# ***RETURN & RECOVERY***

## ***What's Wrong?***

- ***No Agreed Clean-Up Standard***
- ***No Federal Agency In Charge***
- ***No Money- Price Anderson pays damages, not clean-up***
- ***MACCS2 (MELCOR Accident Consequence Code System) is used but outdated – code severely underestimates offsite costs***