



United States Nuclear Regulatory Commission

*Protecting People and the Environment*

**Quarterly Meeting  
GOVERNOR'S NUCLEAR ADVISORY COUNCIL**

***Discussion of Preliminary  
Lessons Learned from the Fukushima Accident***

**COLUMBIA, SOUTH CAROLINA**

**September 8, 2011**

**# # #**

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**United States Nuclear Regulatory Commission**

**Region II, Atlanta, Georgia**



**U. S. Nuclear Regulatory Commission**  
**[www.nrc.gov](http://www.nrc.gov)**

**INDEPENDENT FEDERAL AGENCY**

**5 MEMBER COMMISSION APPOINTED BY THE PRESIDENT**

**EXECUTIVE DIRECTOR FOR OPERATIONS MANAGES DAILY ACTIVITIES**

**NRC HQ LOCATED IN ROCKVILLE, MARYLAND**

**REGIONAL OFFICES, LOCATED in  
PHILADELPHIA, ATLANTA, CHICAGO & ARLINGTON**

**NRC OPERATIONS CENTER STAFFED 24/7  
CALL COLLECT: (301) 816-5100**

# **NRC Mission**

*To regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment*

## **Overview: NRC Region II, Atlanta, GA**

**STATES: AL, FL, GA, KY, NC, SC, TN, VA & WVA**

**(NOTE: except for WVA, all are NRC Agreement States)**

**TERRITORIES: PUERTO RICO & VIRGIN ISLANDS**

**OUT OF REGION STATES: ID, IL, NM, OH, WA**

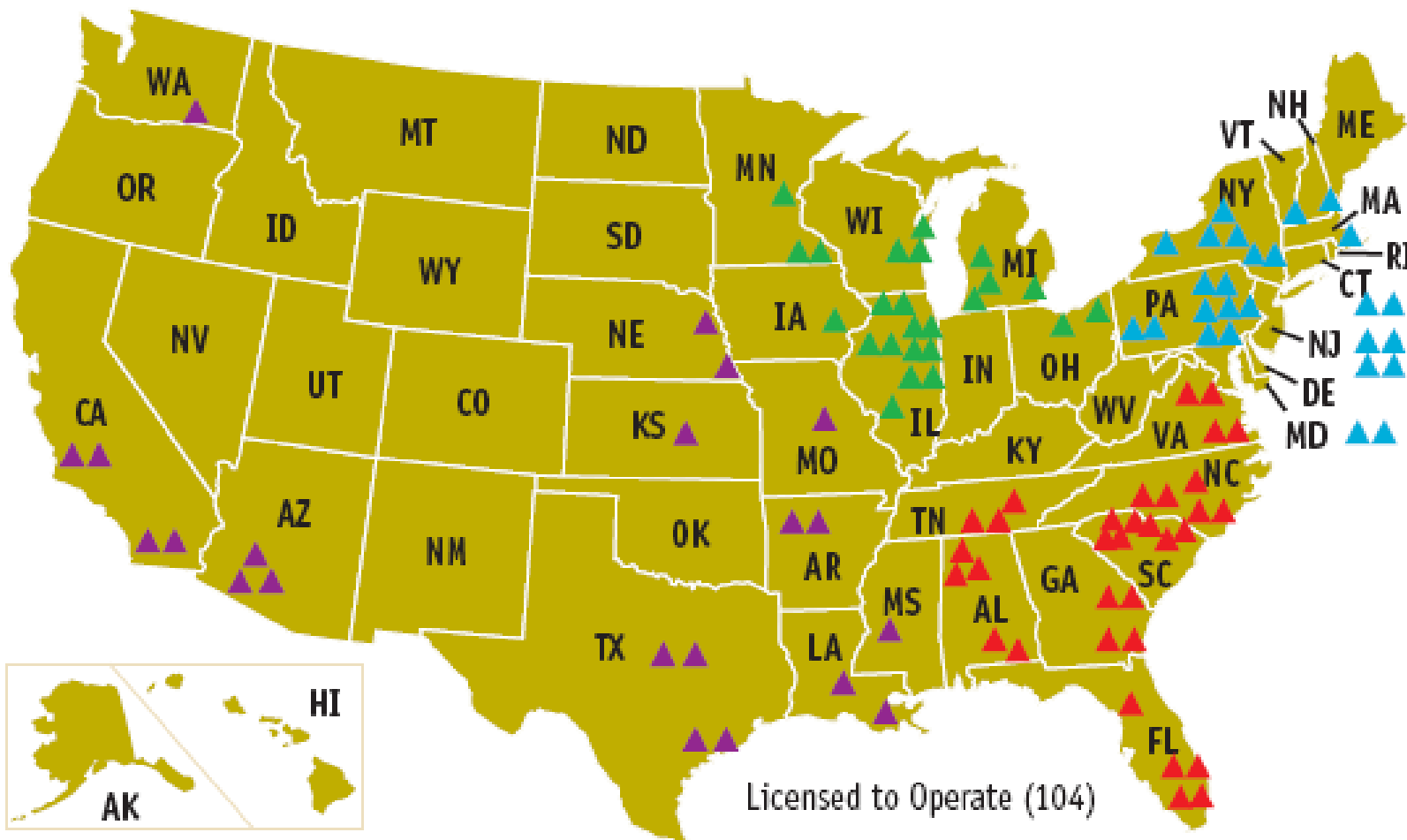
**(NOTE: Nationally, Region II has Regulatory Oversight for all Fuel Cycle Facilities, Including Construction)**

**NEW REACTORS: Nationally, Region II has Oversight for Construction Inspection**

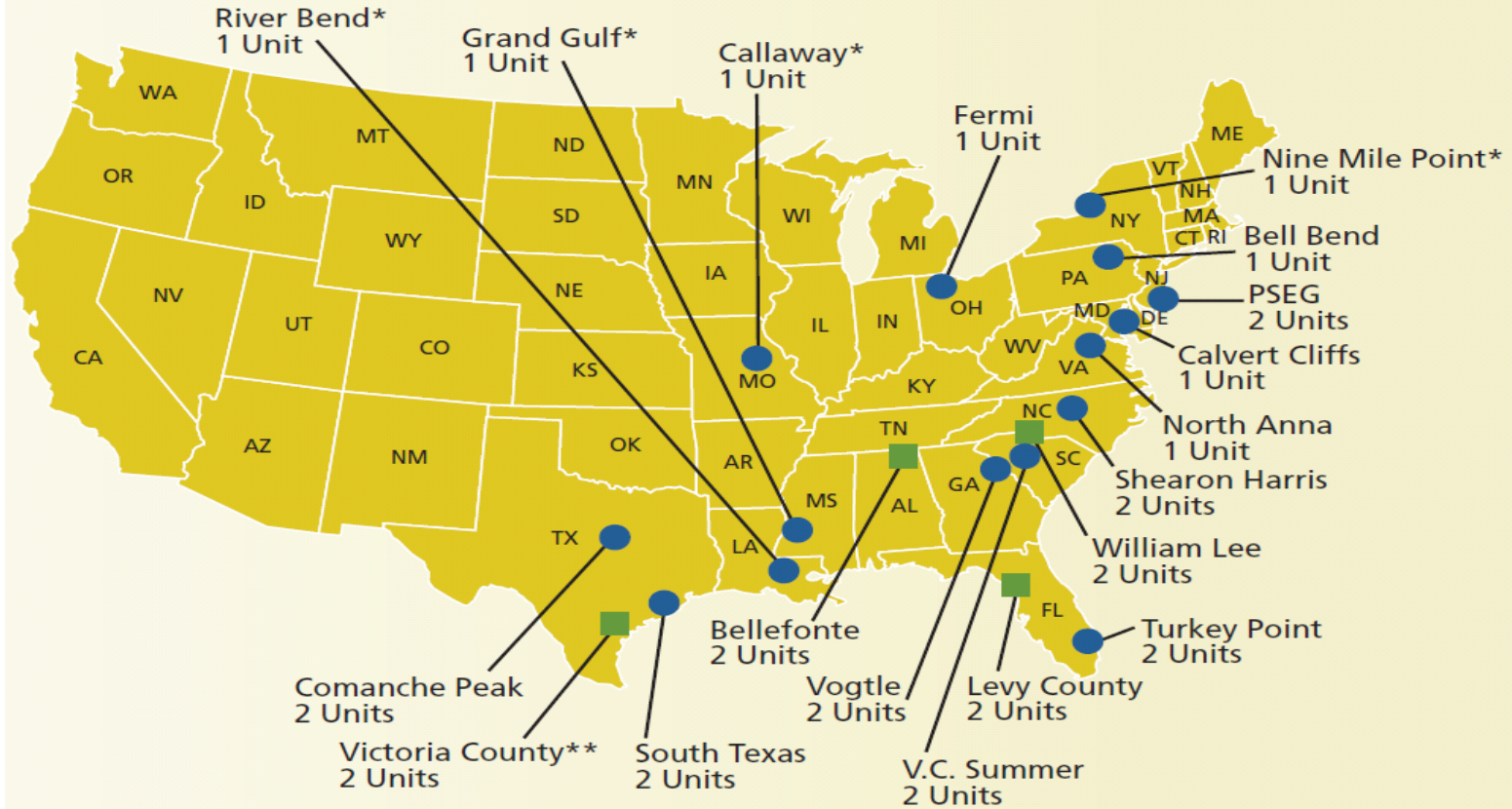
# **Region II: Facilities and Staffing**

- \* 33 Operating Nuclear Plants--104 Nationally**
- \* ~ 1,500 Licensed Reactor Operators**
- \* TVA, Watts Bar, Unit 2, to be Licensed in 2012, per 10CFR50**
- \* Site Preparation: Plants Vogtle (GA), & Summer (SC)**
- \* 10 Operating Fuel Cycle Facilities Nationwide**
- \* 2 Fuel Cycle Facilities Under Construction**
- \* ~ 300 Regional Staff , Including 50 Residents Inspectors**

# Operating Power Reactors



# New Reactor Applicants



- A proposed new reactor at or near an existing nuclear plant
- A proposed reactor at a site that has not previously produced nuclear power

\*Review suspended.

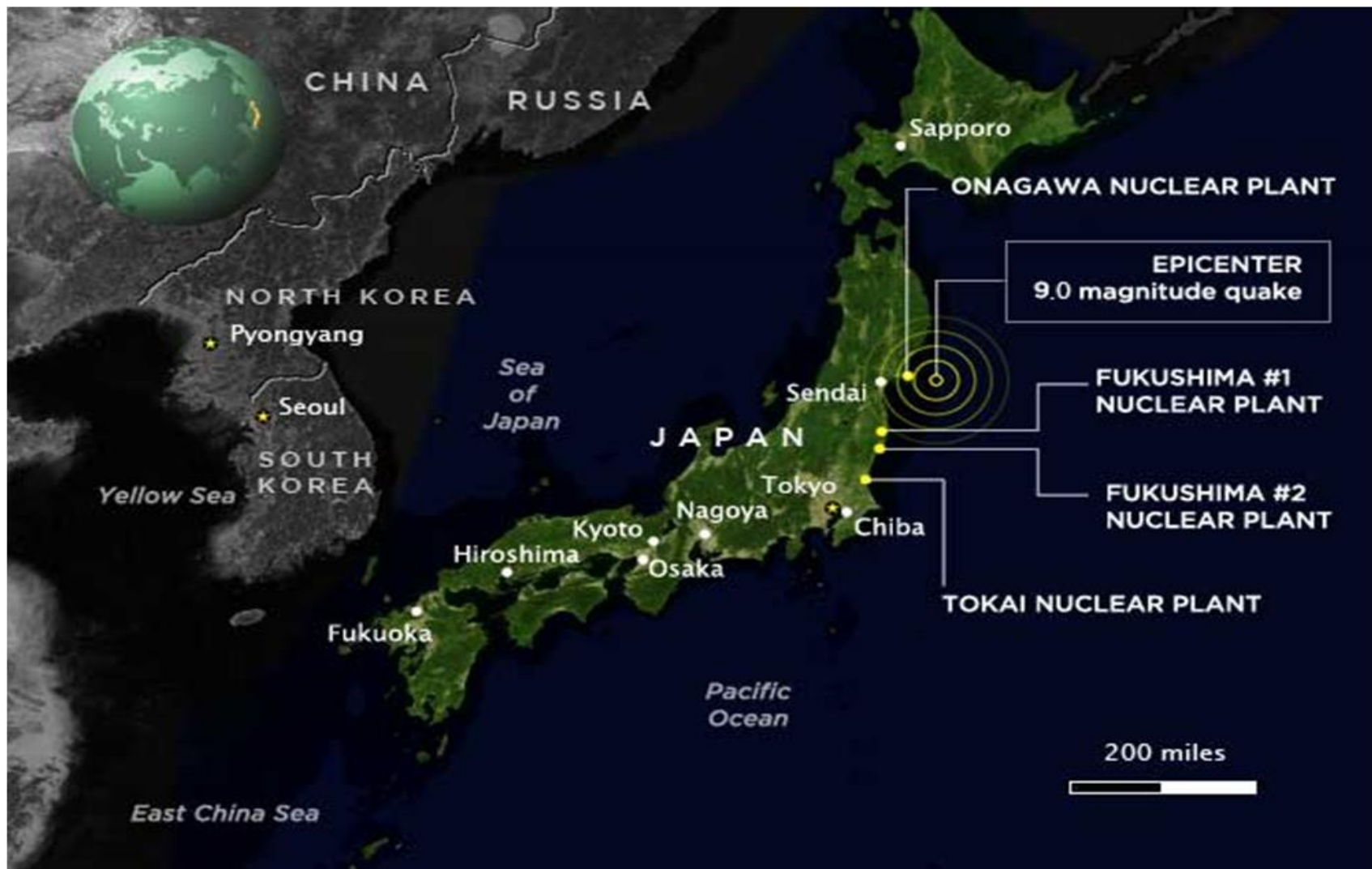
\*\*COL application amended by applicant to ESP on 03/25/2010.

Note: Data as of July 30, 2010.



# March 11, 2011

## NRC's Initial Response





## **CURRENT STATUS**

- **Reactors**

- **Significant Core Damage in Units 1,2, & 3**
- **Electrical Power Restored**
- **Fresh Cooling Water Supplied to All Units**

- **Spent Fuel Pools**

- **Pending Confirmation of Suspect Fuel Damage in 3 & 4**
- **Providing Periodic Make Up Water**

- **Off-Site Environment**

- **Radiological Footprint**
- **General Public Displacement, Significant Numbers**
- **Recovery Efforts Underway**

## **NRC Response**

- NRC HQ Operations Center Staffed 24/7 to Gather Facts and Understanding for Lessons Learned Summary
- Commission Dispatched Experts to Tokyo, i.e., Chuck Casto, Senior NRC Official, and Other Staff Members
- Support, Assist and Advise U. S. Ambassador, John Roos, and to Support and Assist the Japanese Government
- Coordinating Environmental Monitoring with DOE (Japan) & EPA (Domestically)

## **NATIONAL CONSIDERATIONS**

- **Very Low Levels of Radiation were Detected in the U. S.**
- **U.S. Plants are Designed/Licensed for External Events, i.e., Tornadoes, Hurricanes, Earthquakes, Flooding, etc**
- **NRC has Completed Additional Inspections at All U.S. Plants**
- **U.S. Industry Initiated Self Reviews**
- **No Significant Safety Issues Identified from These Reviews**
- **Continued Confidence in Safety & EP Programs of U.S. Plants**
- **NRC Scheduled Near-Term and Long-Term Reviews**

# **NRC Near Term Review**

- **Commission Established Near Term Task Force, to:**
  - **Evaluate Fukushima Event**
  - **Review Domestic Operating Reactors and Spent Fuel Pools, with Emphasis on; External Events, Station Blackout, Severe Accident Mitigation, Emergency Preparedness, and Combustible Gas Control**
- **Near Term Review, Entitled, “*RECOMMENDATIONS for ENHANCING REACTOR SAFETY in the 21<sup>st</sup> CENTURY*”, was completed July 12, 2011, Presented to the Commission on July 19, 2011, and Contains Twelve Recommendations for Consideration to Enhance Safety**

# **THE 12 NEAR TERM REVIEW RECOMMENDATIONS**

**Executive Summary & Recommendations provided as Handout**

**Areas Covered: Loss of Electrical Power, Earthquakes, Flooding, Spent Fuel Pools, Venting, and Emergency Preparedness**

**2 and 3: ENSURING PROTECTION**

**4 through 8: ENHANCING MITIGATION**

**9 through 11: EMERGENCY PREPAREDNESS**

**12: IMPROVING EFFICIENCY of NRC PROGRAMS**

**Recommendation 1: REVISE NRC's REGULATORY SCHEME?**

## **MILESTONE DATES; Re: RECOMMENDATIONS**

September 9, 2011:

Determine Which of the 12 Recommendations, In Whole or in part, Should be Implemented Without Undue Delay

October 9, 2011:

- Prioritize Recommendations 2 Through 12, to Include Lessons Learned from the Fukushima Event,
- Develop Schedule, Re: Public, Stakeholder/ACRS Input

March 2013: Consider Revising NRC Regulatory Scheme



# NRC Longer Term Review

- Based on Near Term Review and Additional Insights from Fukushima Event
- Identify Potential Technical and Policy Issues
  - Research Activities
  - Generic Issues
  - Reactor Oversight Process
  - Regulatory Framework
  - Interagency Emergency Preparedness

# Conclusion

- Continued confidence in safety of US fleet
- NRC is continuing with license renewal and new reactor licensing activities
- Commission will not hesitate to initiate changes to the agency's regulatory and oversight activities, as appropriate.

## **NRC REGION II KEY CONTACTS**

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