



# **Nuclear Regulatory Commission Response to Fukushima**

**Commissioner George Apostolakis**  
**U.S. Nuclear Regulatory Commission**  
[CmrApostolakis@nrc.gov](mailto:CmrApostolakis@nrc.gov)

**Nuclear and Radiation Studies Board**  
**The National Academies**  
**May 26, 2011**

## **NRC Incident Response**

- **NRC coordinated its response through its Headquarters Operations Center from March 11 – May 16**
- **NRC team in Office of Nuclear Reactor Regulation has assumed responsibility for support & coordination efforts**
- **Revolving teams of NRC officials with appropriate expertise have been deployed to Japan since the day after the event**
- **NRC playing a key role in coordinated U.S. response to the event**

## **NRC Inspection Activities**

- **Temporary Instruction 2515/183, “Follow-up to the Fukushima Daiichi Nuclear Station Fuel Damage Event”**
  - **Uses a combination of assessment of licensee actions and independent inspections**
  - **Data gathering to help evaluate whether future regulatory actions may be necessary**
- **Temporary Instruction 2515/184, “Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)”**
  - **To determine that the SAMGs are available and assess how they are being implemented**
  - **To determine the nature and extent of licensee implementation of SAMG training and exercises**

## **Inspection Results for TI 2515/183**

- **Inspections completed in April 2011**
- **The inspection reports and a summary of the findings are available on NRC's web site**
- **Observations “indicate a potential industry trend of failure to maintain equipment and strategies required to mitigate some design and beyond design basis events”**
- **However, “no functions were compromised that would have resulted in damage to the fuel elements or containment”**

## **NRC Bulletin 2011-01, “Mitigating Strategies”**

- **Issued May 11, 2011**
- **By June 10, respond with information confirming mitigative strategy equipment is in place and available, as well as that the strategies can be carried out with current plant staffing**
- **By July 11, respond with further information, including:**
  - **How essential resources are maintained, tested and controlled to ensure availability**
  - **How strategies are re-evaluated if plant conditions or configurations change**
  - **How arrangements are reached and maintained with local emergency response organizations**

## **Near-Term Task Force (90 days)**

- **Commission Direction for Near-Term Review**
  - **Conduct a methodical and systematic review of relevant NRC regulatory requirements, programs, and processes, and their implementation, to recommend whether the agency should make near-term improvements to our regulatory system**
  - **Recommendations for the content, structure, and estimated resource impact for the longer-term review**
  - **Independent from industry efforts**
  - **Milestones**
    - ✓ **30-day Commission meeting (5/12/11)**
    - ✓ **60-day Commission meeting (6/16/11)**
    - ✓ **90-day final report and Commission meeting (7/19/11)**

## **Task Force Areas of Focus**

- **Protection from design basis natural phenomena**
- **Consideration of beyond design basis natural phenomena**
- **Mitigation for long-term SBO**
  - Including multiple unit events
- **Emergency preparedness**
- **NRC programs**

## **Task Force Current Assessment**

- **To date the task force has not identified any issues that undermine our confidence in the continued safety and emergency planning of U.S. plants**
- **Task force review likely to recommend actions to enhance safety and preparedness**



## **Longer-Term Review (9 months)**

- **Commission Direction for Longer-Term Review**
  - **Specific information on sequence of events and equipment status**
  - **Evaluate policy issues**
  - **Potential interagency issues**
  - **Lessons learned for facilities other than operating reactors**
  - **Receive input and interact with all key stakeholders**
  - **Report within six months after beginning of long-term effort**
  - **Advisory Committee on Reactor Safeguards to review final long-term report and provide letter report to the Commission**