



# Regulatory Information Conference 2006 March 7, 2006

Session: T2GH, Emergency Preparedness  
Linda Howell, Chief  
Response Coordination Branch  
USNRC Region IV



## NRC Preparations and Response

- NRC initiated preparations in advance of the 2006 Hurricane Season.
- Region II began monitoring the storm on August 24 as Tropical Depression 12, 270 miles from Florida coast.
- Region II coordinated with DHS/FEMA, Florida, and applicable NRC licensees as the storm progressed to a Tropical Storm.
- Region II monitored preparations at Saint Lucie and Turkey Point and issued status reports to keep stakeholders informed of plant preparations.



## NRC Preparations and Response

- Region II remained in communication with and continued to monitor the Turkey Point and Saint Lucie plants as Katrina passed between the plants.
- Region II continued to monitor and provide status reports on Katrina as it moved westward until the NRC lead for storm monitoring was transferred to Region IV on August 27.
- Region IV monitored preparations at Grand Gulf, River Bend, and Waterford-3 plants and augmented staffing at Waterford-3 on August 27.



## NRC Preparations and Response

- NRC inspectors prepared to provide 24-hour coverage at Grand Gulf, River Bend, and Waterford-3 beginning August 28.
- NRC entered Monitoring Mode on August 28 with Region IV in the lead for site response, supported by Headquarters teams.
- NRC staffed DHS/FEMA Region VI and the DHS Homeland Security Operations Center, and offered assistance to the Louisiana Emergency Operations Center (EOC).



## NRC Preparations and Response

- Katrina made landfall early on August 29 as a Category 4 hurricane.
- NRC initiated daily, joint conference calls with Louisiana, the Parishes, DHS/FEMA, and Entergy to discuss onsite and offsite challenges and status.
- Region IV augmented staffing at the nuclear power plants and dispatched inspectors to the Louisiana EOC to provide communications support for materials issues.



## NRC Preparations and Response

- NRC provided status information on nuclear power plants and materials facilities in Louisiana and Mississippi to DHS and the Joint Field Office following the declaration of an Incident of National Significance on August 30.
- NRC supported DHS/FEMA in completing informal reviews of offsite emergency preparedness for Grand Gulf and River Bend on August 31.



## NRC Preparations and Response

- NRC continued 24-hour coverage at Grand Gulf and River Bend from August 28 to September 2.
- NRC continued 24-hour coverage at Waterford-3 from August 28 to September 13.
- NRC assisted Louisiana in obtaining Federal support for aerial monitoring and in obtaining resources for assuring security of higher risk sources in New Orleans.



## NRC Preparations and Response

- NRC initiated a Restart Focus Team to review onsite restart issues at Waterford-3 and participated in the DHS/FEMA Disaster Initiated Review Team. These teams worked in parallel to verify onsite and offsite emergency preparedness status.
- Both teams concluded their review of Waterford-3's restart preparedness on September 8.
- DHS provided a "Statement of Reasonable Assurance" on September 9, and NRC subsequently authorized restart for Waterford-3.





## NRC Preparations and Response

- Region IV dispatched inspectors to Louisiana to assist field teams in verifying the security of higher risk sources. Region IV provided communications and field team support from September 13 through October 5.
- NRC assisted the Centers for Disease Control and the Environmental Protection Agency in assessing the status of higher risk sources in New Orleans during the early recovery period.



## NRC Lessons Learned Reviews

- Region IV completed a lessons learned review after exiting Monitoring Mode and once all actions associated with plant restart and support for Louisiana field teams concluded.
- NRC chartered a Task Force to assess lessons learned and develop recommendations at an agency-wide level. The Task Force included representatives from the reactor and materials programs. The Task Force interfaced with NRC and State staff, as well as representatives from industry.



# NRC Lessons Learned Reviews

## Advance Storm Tracking and Response Preparations

Existing Process worked well, but it can be enhanced

- Use of a “graded approach” based on storm severity to determine number and timing for dispatching supplemental staff to affected sites
- Implement additional coordination with States concerning materials issues
- Enhance liaison with States through communications support



# NRC Lessons Learned Reviews

## Communication Systems and Infrastructure

Use of diverse communication systems/technology by regional teams was effective

- Diverse technology should be shared with affected sites and local/State response organizations

Challenges to communications infrastructure during a major event include both physical damage and system overload

- Identification of alternative resources up front is essential



# NRC Lessons Learned Reviews

## Coordination with Licensees and Local, State, and Federal Organizations

New roles for Federal Departments and Agencies under the National Response Plan during an Incident of National Significance can introduce challenges

- Additional coordination required to control the flow of information and assure accuracy

Enhanced coordination/communication efforts were effective in assessing impact and preparing for restart/recovery



# NRC Lessons Learned Reviews

## Preparations for Recovery and Restart

Enhanced coordination between government organizations at all levels assured greater efficiency for offsite restart reviews

Use of the Restart Focus Team provided an integrated approach for reviewing multiple technical issues at Waterford-3