



# Peach Bottom Annual Assessment Meeting

## Peach Bottom Atomic Power Station Safety Performance in 2010 & U.S. Nuclear Plant Safety in light of Japan Events

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2010 Reactor Oversight Process  
Nuclear Regulatory Commission – Region I



# Agenda

- Introduction
- Discussion of Peach Bottom performance during 2010
- Discussion of U.S. nuclear plant safety in light of Japan events
- NRC to address public questions
- Closing remarks



# NRC Assessment Summary

- Exelon operated Peach Bottom in a manner that preserved the public health and safety and protected the environment.
- Licensee Response Column of the Action Matrix
- Baseline inspections are planned for 2011



# NRC Action Matrix

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple Repetitive Degraded Cornerstone	Unacceptable Performance
All Inputs are Green; Cornerstone Objectives Fully Met	1 or 2 White Inputs; Cornerstone Objectives Fully Met	2 White or 1 Yellow Input; Cornerstone Objectives Met w/ Moderate Degradation in Safety Performance	Multiple Yellow Inputs or 1 Red Input; Cornerstone Objectives Met w/ Significant Degradation in Safety Performance	Overall Unacceptable Performance; Plants not permitted to Operate w/in this Column; Unacceptable Margin to Safety



- Increasing safety significance
- Increasing NRC inspection efforts
- Increasing NRC/Licensee management involvement
- Increasing regulatory actions



# Inspection Activities in 2010

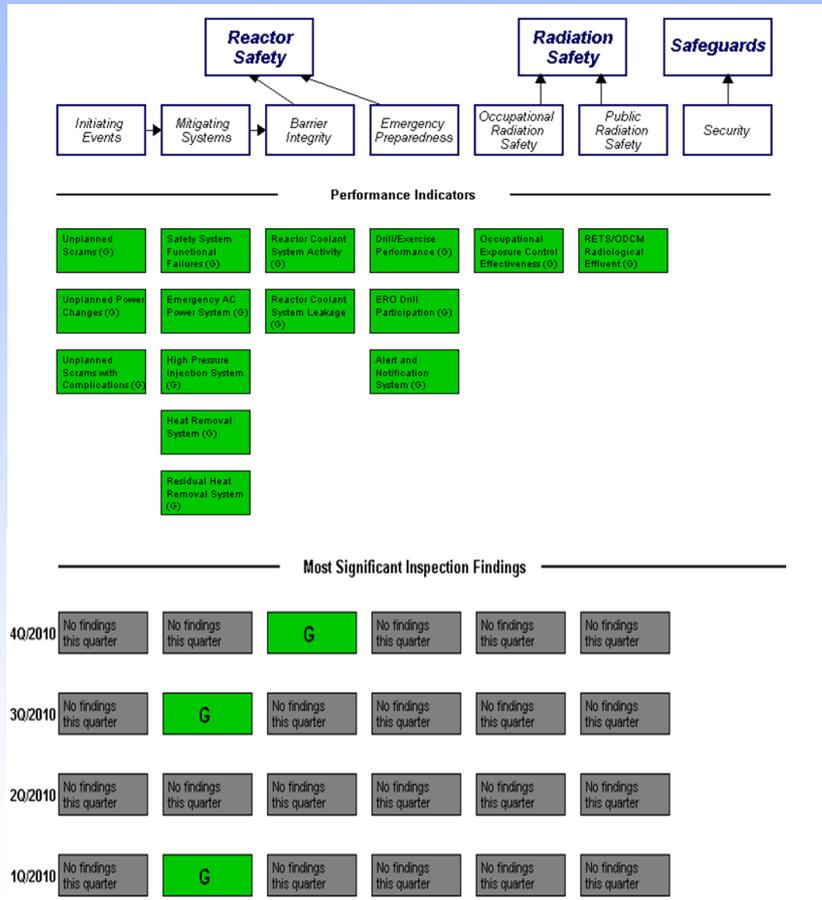
- 5518 hours of inspection and related activities
- 2 resident inspectors on site – residents perform inspections daily and can respond to plant events at any time
- 23 regional inspectors
- 2 major team inspections
  - Permanent plant modifications
  - EP exercise evaluation





# Performance Indicator and Inspection Results

January 1 through December 31, 2010



- All Green Performance Indicators
- 4 Non Cited Violations
- No Greater than Green inspection findings



# 2010 Peach Bottom Assessment Summary

- Peach Bottom was operated safely
- Licensee Response column of the Action Matrix
- Baseline inspections planned for 2011





# Peach Bottom Assessment Meeting

## U.S. Nuclear Plant Safety in Light of Japan Events

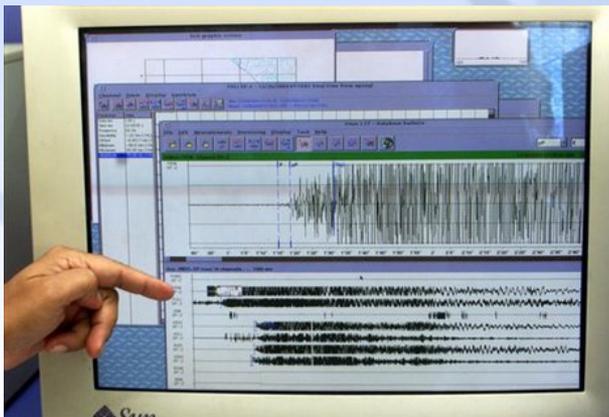


# U.S. Nuclear Plants Remain Safe

- NRC requires plants to be designed to withstand site specific external events
- NRC requires a defense-in-depth approach to safety
- NRC performs independent safety inspections
- NRC assesses new safety information and requires improvements



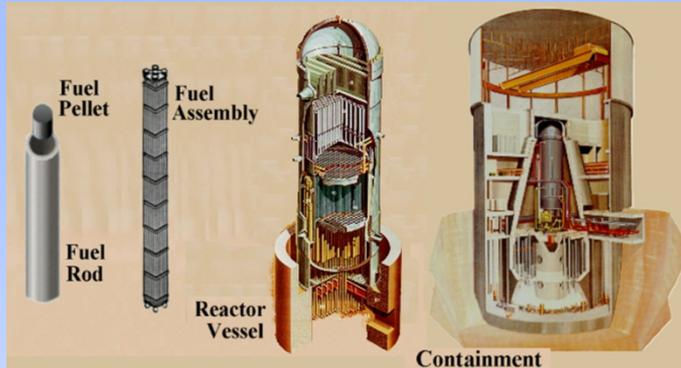
# Designed for Site Specific Natural Events



- Earthquakes
- Tsunamis
- Hurricanes
- Floods
- Tornadoes



# The NRC Requires Defense-In-Depth



- Redundant and diverse safety systems
- Multiple physical barriers to contain radioactive material
- Testing and inspection of systems important to safety
- Emergency planning





# NRC Independent Safety Inspections

## Reactor Oversight Program

- NRC inspectors have unfettered access to all plant activities related to nuclear safety and security
- At least two full-time NRC resident inspectors at each nuclear plant
- NRC inspectors review many areas including Operations, Maintenance, Security, Engineering, Radiological Controls, and Fire Protection

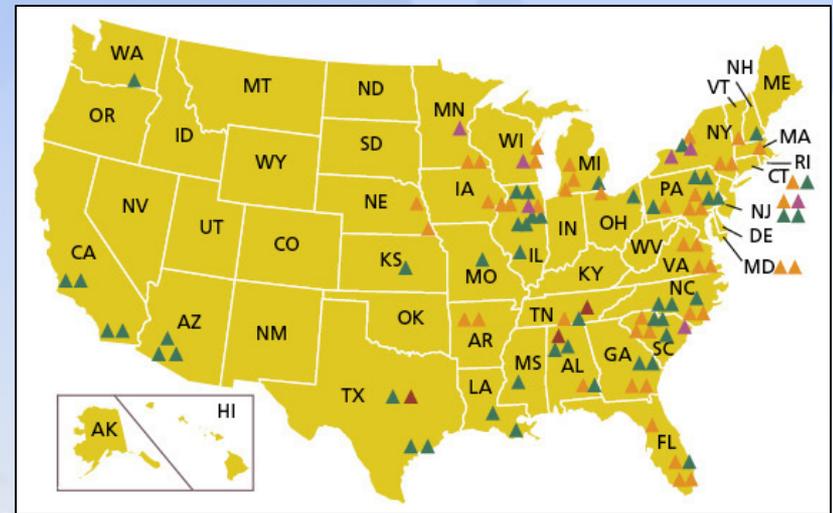




# NRC Requires Safety Improvements

NRC assesses new safety information, develops lessons learned, and requires safety enhancements:

- NRC operating experience program
- Rulemaking (Station Blackout)
- Post TMI Actions
- Post 9/11 Orders
- **Generic Safety Issues**





# State-of-the-Art Reactor Consequence Analysis (SOARCA)

- Estimates the outcomes of postulated and highly unlikely beyond design basis severe accident scenarios
- Incorporates the improvements in plant design, operation, accident management and updated computer codes
- Accidents progress more slowly and lower radiological releases occur than previously assumed/predicted



Peach Bottom



Surry



# Director's Comments

Darrell Roberts, Director  
Division of Reactor  
Projects  
USNRC, Region I



# Meeting Ground Rules

Rich Barkley, PE, Nuclear & Environmental  
Engineer , Meeting Facilitator

- Please ensure you have filled out a white card if you'd like to speak
- To be fair, the amount of time allotted will be limited and based on the number of speakers who sign up
- Please be courteous to the speaker, NRC staff, and other meeting attendees
- Written comments are welcome during and after this meeting – Please give them to any NRC Representative. Comments may be sent via mail via the NRC Meeting Feedback Form.



# Questions





# Information Resources Regarding Events in Japan

- <http://www.nrc.gov/japan/japan-info.html>
- <http://www.nrc.gov/japan/faqs-related-to-japan.pdf>
- <http://www.epa.gov/japan2011/index.html>
- <http://www.state.gov/p/eap/regional/158236.htm>
- [http://www.cbp.gov/xp/cgov/newsroom/news\\_releases/national/03172011\\_6.xml](http://www.cbp.gov/xp/cgov/newsroom/news_releases/national/03172011_6.xml)
- <http://blog.energy.gov/content/situation-japan>



# Contacting the NRC

- Report a safety concern
  - 1-800-695-7403
  - [allegation@nrc.gov](mailto:allegation@nrc.gov)
- General questions
  - [www.nrc.gov](http://www.nrc.gov)
  - Region I Public Affairs
    - Diane Screnci, 610-332-5330 or [diane.screnci@nrc.gov](mailto:diane.screnci@nrc.gov)
    - Neil Sheehan, 610-332-5331 or [neil.sheehan@nrc.gov](mailto:neil.sheehan@nrc.gov)

