

# ***Crystal River Unit 3 Annual Assessment Open House***

**Reactor Oversight Program - 2009**

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**Nuclear Regulatory Commission - Region II**

**Atlanta GA**

**May 3, 2010**



# ***Purpose of Today's Meeting***

**A public forum to discuss and answer questions about the NRC's assessment of safety performance at Crystal River Unit 3 during 2009**

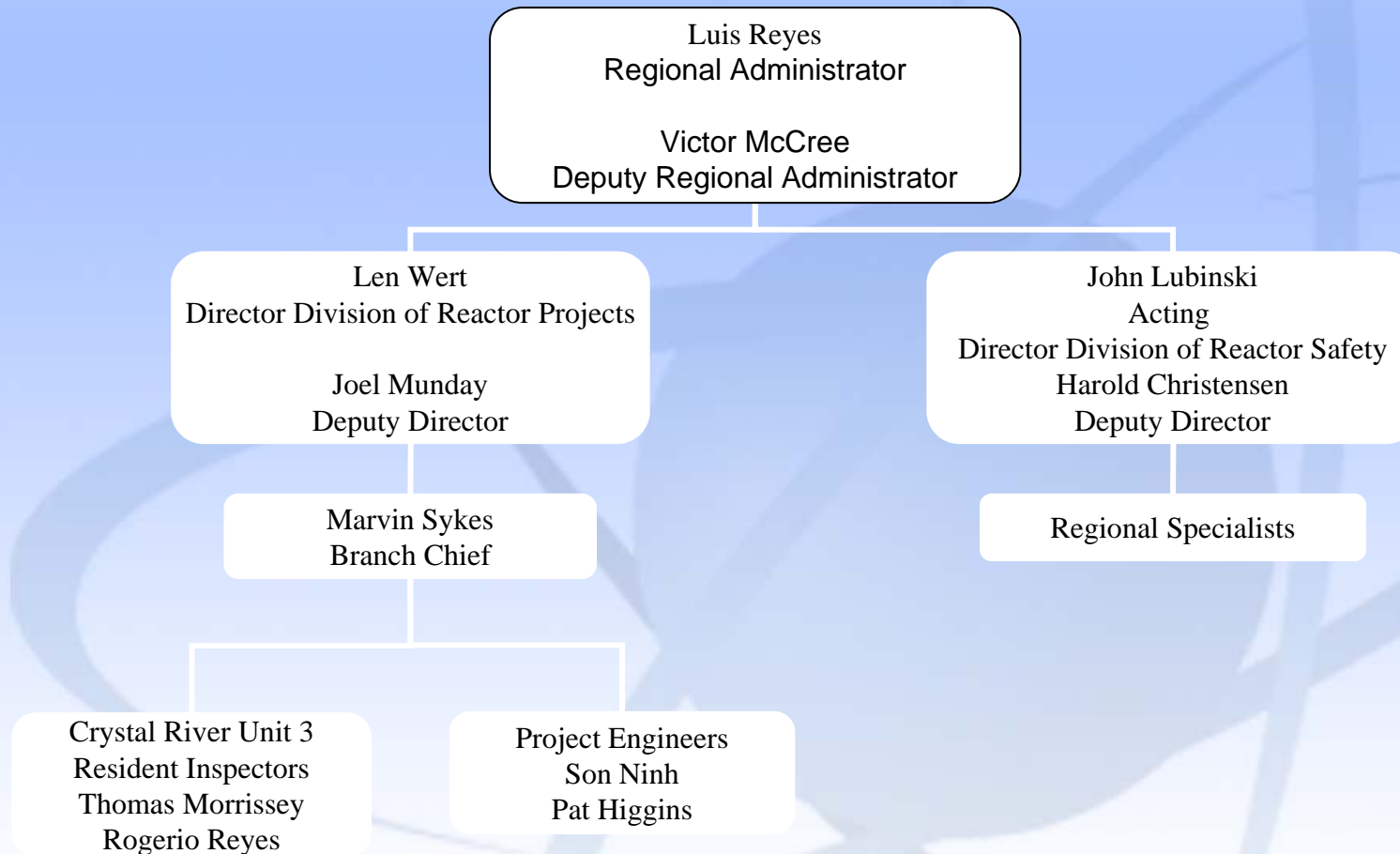


# ***Agenda***

- **Introduction**
- **Review of Reactor Oversight Process**
- **National Summary of Plant Performance**
- **Discussion of Plant Performance Results**
- **NRC available to address public questions**

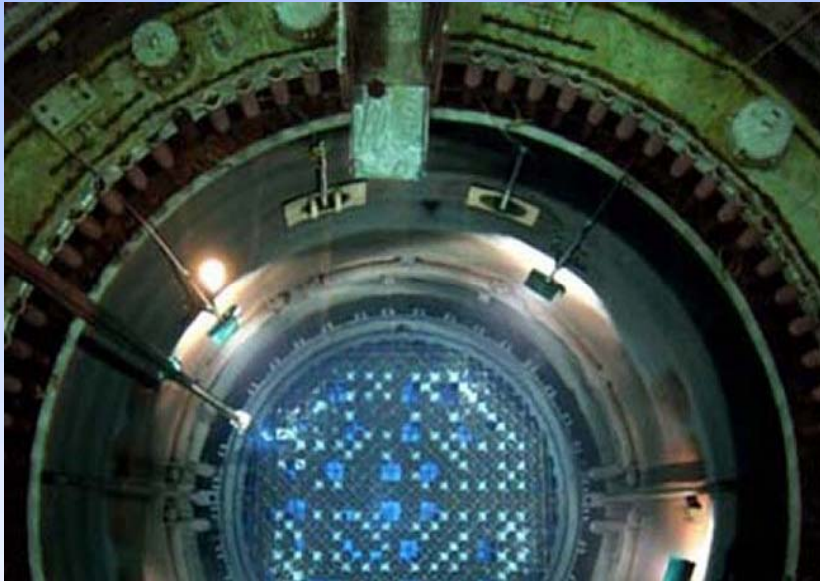


# Region II Organization





# ***Our Mission***



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



# Some Nuclear Facts



- 104 nuclear power plants supply about 20 percent of the electricity in the U.S.
- Nuclear materials are used in medicine for diagnosis and cancer treatment.
- Nuclear materials are widely used in industry, such as in density gauges, flow measurement devices, radiography devices, and irradiators.





# ***How We Regulate***

- **Establish rules and regulations**
- **Issue licenses**
- **Provide oversight through inspection, enforcement, and evaluation of operational experience**
- **Conduct research to provide support for regulatory decisions**
- **Respond to events and emergencies**



# ***Assurance of Plant Safety***

- **Require “defense-in-depth”**
- **Require long-term maintenance of equipment**
- **Require continual training of operators**
- **Verify compliance with regulations**



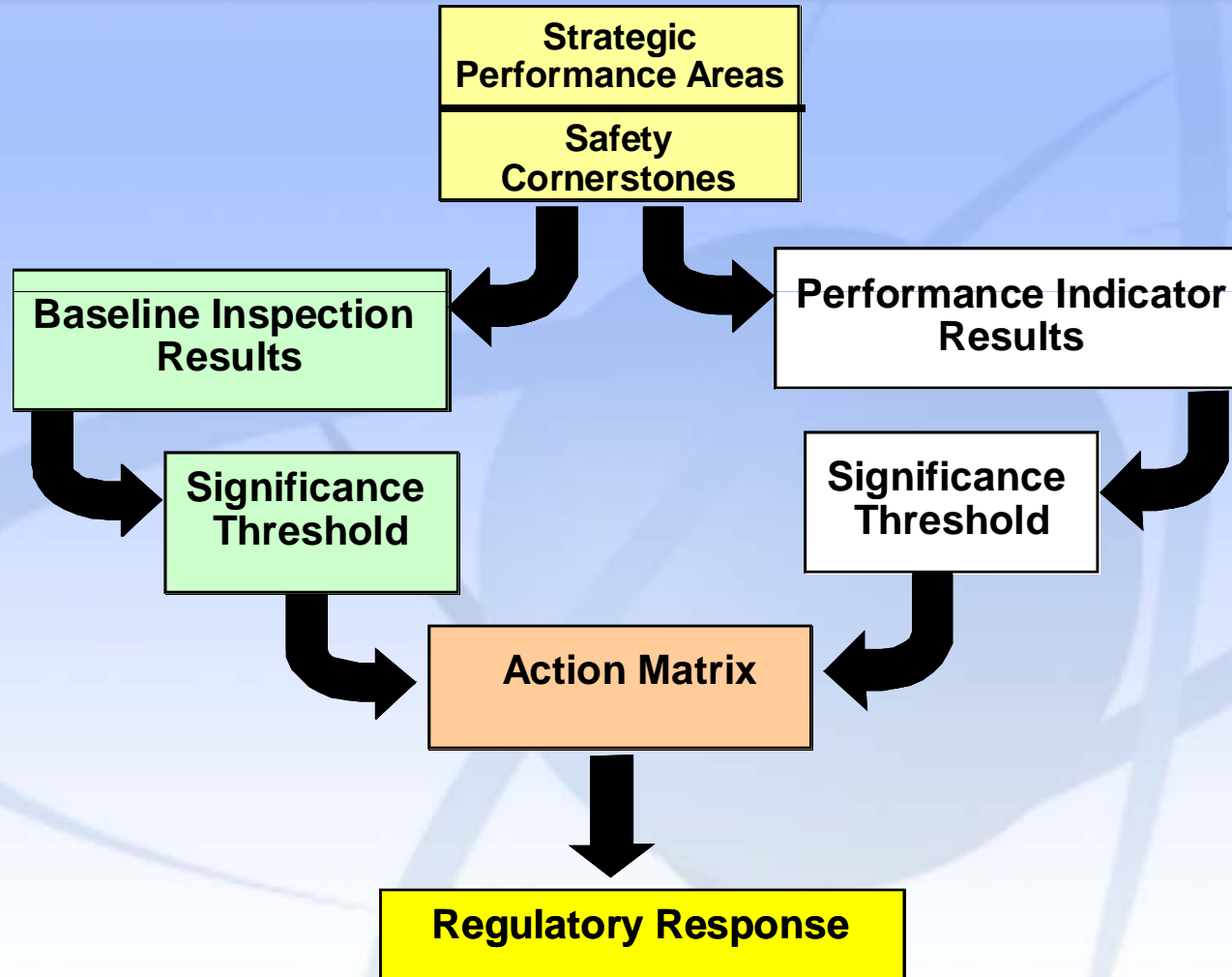


# ***NRC Performance Goals***

- **Safety:** Ensure adequate protection of public health and safety and the environment.
- **Security:** Ensure adequate protection in the secure use and management of radioactive materials.



# Reactor Oversight Process





# ***Examples of Baseline Inspections***

- **Equipment Alignment** ~80 hrs/yr
- **Triennial Fire Protection** ~250 hrs  
every 3 yrs
- **Operator Response** ~125 hrs/yr
- **Emergency Preparedness** ~80 hrs/yr
- **Rad Release Controls** ~110 hrs  
every 2 yrs
- **Worker Radiation Protection** ~95 hrs/yr
- **Corrective Action Program** ~250 hrs  
every 2 yrs
- **Corrective Action Case Reviews** ~60 hrs/yr



# *Significance Threshold*

## Performance Indicators

- Green:** Only Baseline Inspection
- White:** Increases NRC oversight
- Yellow:** Increases NRC oversight
- Red:** Increases NRC oversight

## Inspection Findings

- Green:** Very low safety issue
- White:** Low to moderate safety issue
- Yellow:** Substantial safety issue
- Red:** High safety issue



# Action Matrix Concept

<b>Licensee Response</b>	<b>Regulatory Response</b>	<b>Degraded Cornerstone</b>	<b>Multiple/Rep. Degraded Cornerstone</b>	<b>Unacceptable Performance</b>
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**Increasing Safety Significance**

**Increasing NRC Inspection Efforts**

**Increasing NRC/Licensee Management Involvement**

**Increasing Regulatory Actions**



# ***National Summary of Plant Performance***

## **Status as of 12/31/2009**

<b>Licensee Response</b>	<b>79</b>
<b>Regulatory Response</b>	<b>24</b>
<b>Degraded Cornerstone</b>	<b>1</b>
<b>Multiple/Repetitive Deg. Cornerstone</b>	<b>0</b>
<b>Unacceptable</b>	<b>0</b>
<b>Total</b>	<b>104</b>



# National Summary

- **Performance Indicator Results (total for CY 2009)**
  - **Green** 7039
  - **White** 18
  - **Yellow** 0
  - **Red** 0
- **Total Inspection Findings (total for CY 2009)**
  - **Green** 879
  - **White** 7
  - **Yellow** 0
  - **Red** 0



# ***Crystal River Assessment Results***

**January 1 - December 31, 2009**

- **The NRC found that the Crystal River plant's 2009 performance met all the agency's safety objectives and was at a level that results in no additional NRC oversight.**
- **Last fall the plant was shut down for a planned refueling outage and to replace the steam generators (SGs) inside the reactor building. When an opening was created in the containment wall to allow SG replacement, a gap was discovered near the outer portion of the reactor building. This prompted the NRC to launch a special inspection that is still ongoing.**





# ***Crystal River Inspection Activities***

**January 1 - December 31, 2009**

- **Baseline inspection hours: > 3400**  
Inspections conducted by resident inspectors, regional security, operations, and radiation protection inspectors. Six findings of very low significance findings were identified. Four of which were determined to be violations.
- **Containment Special Inspection:**  
Inspection is ongoing. > 2900 hours of inspection to date.



# ***Crystal River Inspection Activities***

**January 1 - December 31, 2009**

- In December 2008 the Licensee submitted an application to the NRC to extend the term of their operating license for an additional 20 years. The NRC review of this application which includes onsite inspections started in 2009 and is ongoing.**



# ***Crystal River Annual Assessment Summary***

**January 1 - December 31, 2009**

- **Progress Energy operated Crystal River Unit 3 in a manner that preserved public health and safety**
- **All cornerstone objectives were met**



# ***Crystal River Annual Assessment Summary***

**January 1 - December 31, 2009**

**NRC 2010 Inspections:**

**NRC baseline inspections**

**Steam generator replacement**

**Containment Special Inspection**

**License Renewal Inspections**



# *Open to the Public*

- **The NRC places a high priority on keeping the public and stakeholders informed of its activities.**
- **At [www.nrc.gov](http://www.nrc.gov), you can:**
  - Find public meeting dates and transcripts;
  - Read NRC testimony, speeches, press releases, and policy decisions; and
  - Access the agency's Electronic Reading Room to find NRC publications and documents.



# ***Contacting the NRC***

- **Report an emergency**
  - (301) 816-5100 (call collect)
- **Report a safety concern**
  - (800) 695-7403
  - Allegation@nrc.gov
- **General information or questions**
  - [www.nrc.gov](http://www.nrc.gov)
  - Select “What We Do” for Public Affairs



# Reference Sources

- Reactor Oversight Process
  - <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>
- Public Electronic Reading Room
  - <http://www.nrc.gov/reading-rm.html>
- Public Document Room
  - 1-800-397-4209 (Toll Free)