

Shearon Harris Annual Assessment Meeting

Reactor Oversight Program - 2009

Nuclear Regulatory Commission - Region II

Apex, North Carolina

May 18, 2010

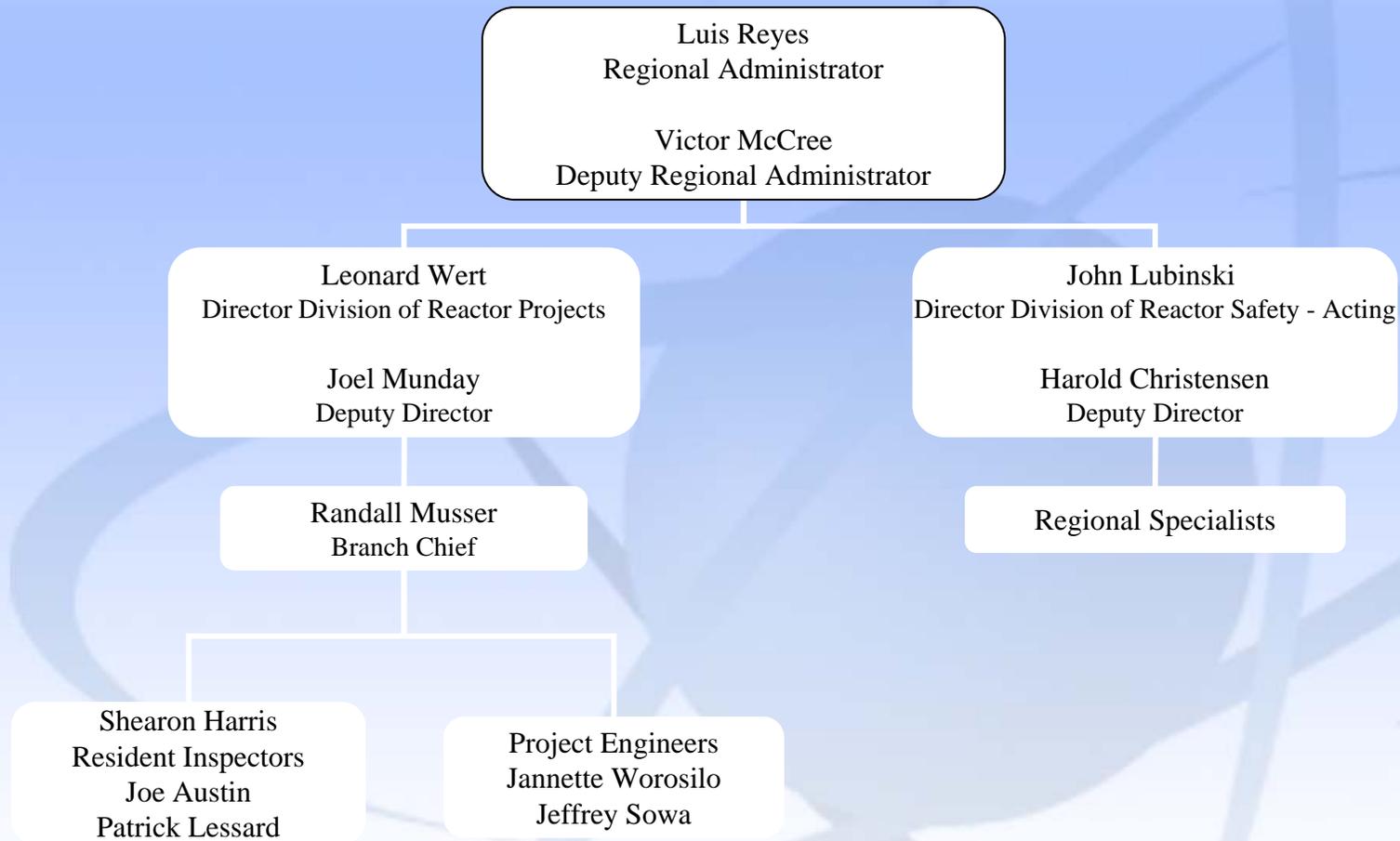


Agenda

- **Introduction**
- **Review of Reactor Oversight Process**
- **National Summary of Plant Performance**
- **Discussion of Plant Performance Results**
- **Licensee Response and Remarks**
- **NRC Closing Remarks**
- **Break**
- **NRC available to address public questions**

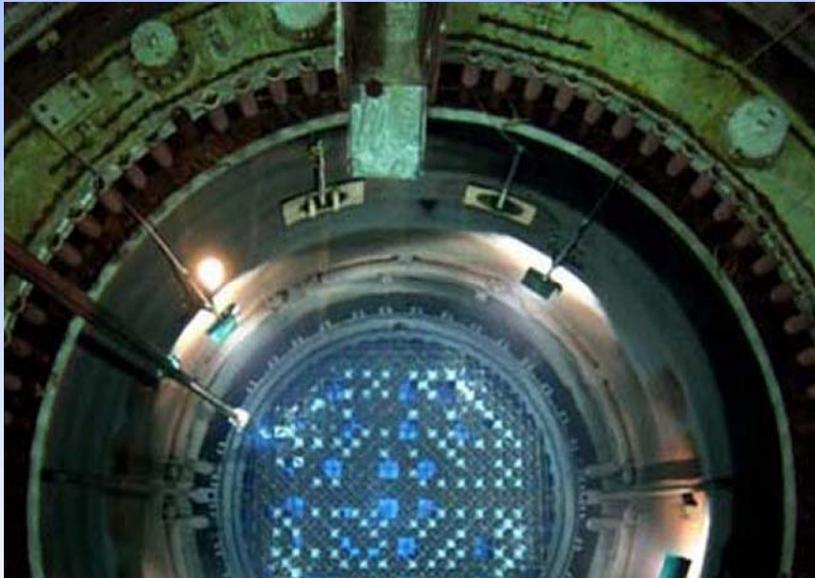


Region II Organization





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.





The NRC Regulates

- **Nuclear reactors** - commercial power reactors, research and test reactors, new reactor designs
- **Nuclear materials** - nuclear reactor fuel, radioactive materials for medical, industrial, and academic use
- **Nuclear waste** – transportation, storage and disposal of nuclear material and waste, decommissioning of nuclear facilities
- **Nuclear security** – physical security of nuclear facilities and materials from sabotage or attacks

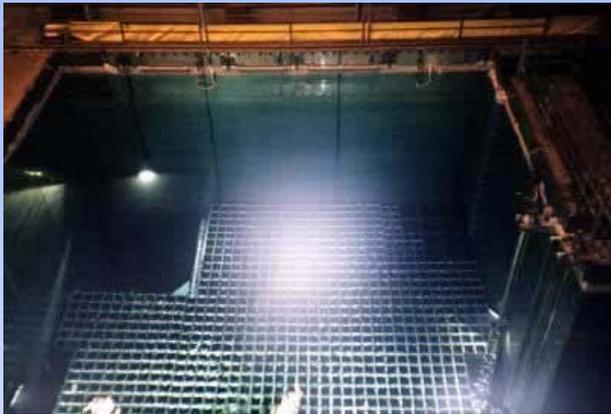


How We Regulate

- **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**



What We Do – Nuclear Waste



- **The NRC regulates:**
 - **Storage of spent reactor fuel in fuel pools or dry storage casks**



What We Do – Nuclear Security



- **NRC Requires:**
 - Well-armed and well-trained security forces,
 - Surveillance and perimeter patrols,
 - State-of-the-art site access equipment and controls,
 - Physical barriers and detection zones, and
 - Intrusion detection systems and alarm stations.

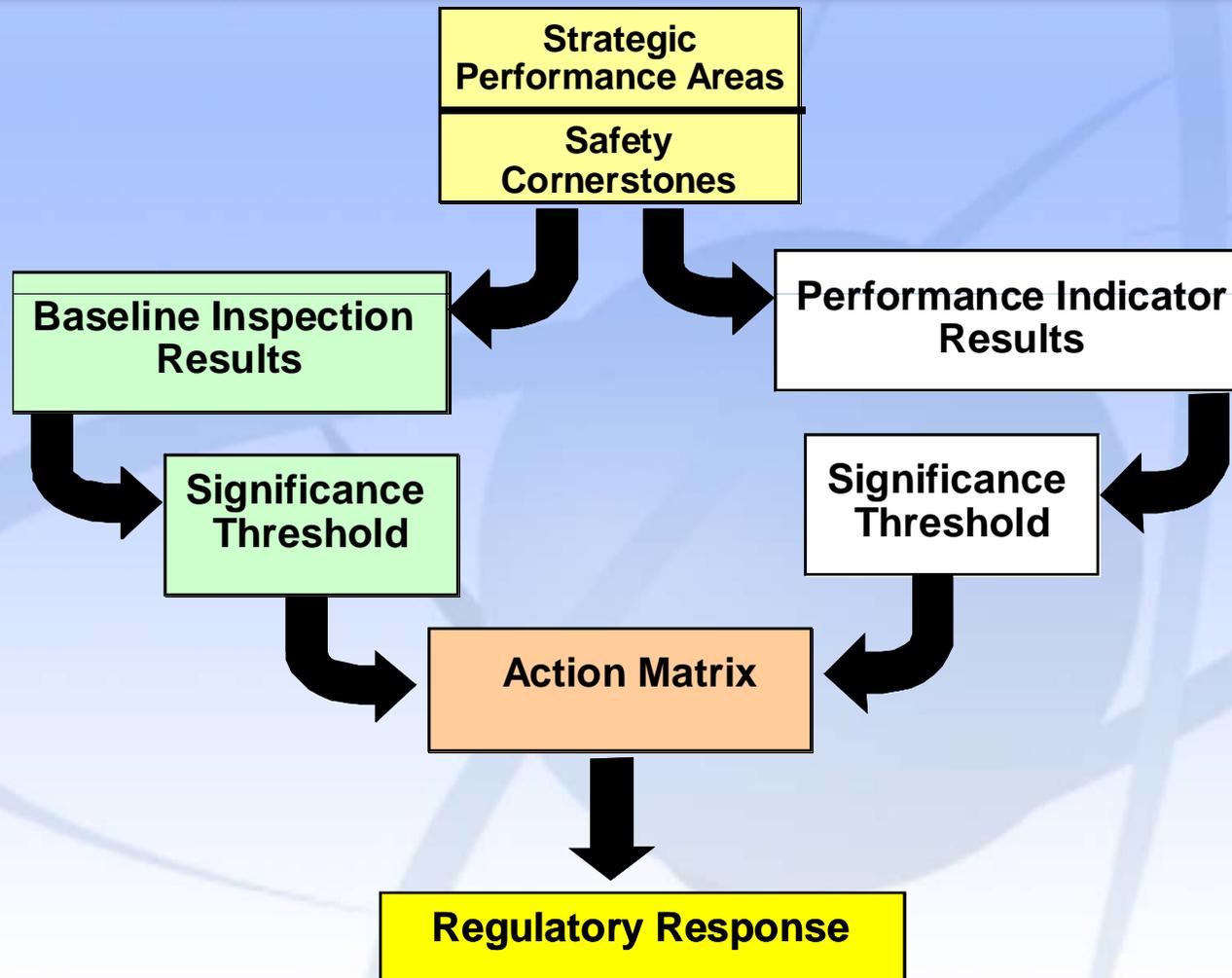


NRC Performance Goals

- **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

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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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

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



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



Shearon Harris Inspection Activities

January 1 - December 31, 2009

- **Resident Inspector Daily Inspections**
- **Occupational Radiation Protection**
- **Operator Licensing – Requalification and Initial**
- **Problem Identification and Resolution**
- **Emergency Preparedness Exercise**
- **In Service Inspection**



Shearon Harris Inspection Activities

January 1 - December 31, 2009

- **5 Green inspection findings**
- **All Performance Indicators were Green**
- **2458 total hours of inspections**



Shearon Harris Annual Assessment Summary

January 1 - December 31, 2009

- **Licensee Response Column**
- **Progress Energy operated Shearon Harris in a manner that preserved public health and safety**
- **All cornerstone objectives were met**
- **NRC plans baseline inspections at Shearon Harris for 2010**



Licensee Response and Remarks

Chris Burton
Site Vice President
Shearon Harris



Open to the Public

- **The NRC places a high priority on keeping the public and stakeholders informed of its activities.**
- **At 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
 - Select “What We Do” for Public Affairs



NRC Representatives

- **Leonard Wert, Director, Division Reactor Projects**
 - (404) 997-4500
- **Joel Munday, Deputy Division Director, DRP**
 - (404) 997-4501
- **Marlayna Vaaler, Project Manager, NRR**
 - (301) 415-3178
- **Joe Austin, Senior Resident Inspector**
 - (919) 362-0601
- **Patrick Lessard, Resident Inspector**
 - (919) 362-0601
- **Jannette Worosilo, Senior Project Engineer**
 - (404) 997-4485
- **Randall Musser, Branch Chief**
 - (404) 997-4603



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