

***Brunswick Steam Electric
Plant
Annual Assessment
Meeting***

Reactor Oversight Program - 2009

**Nuclear Regulatory Commission - Region II
Southport, North Carolina
May 27, 2010**



Purpose of Today's Meeting

- **A public forum for discussion of the licensee's performance in 2009**
- **NRC will address the performance issues identified in the annual assessment letter**
- **Licensee will be given the opportunity to respond and inform the NRC of new or existing programs to maintain or improve performance**

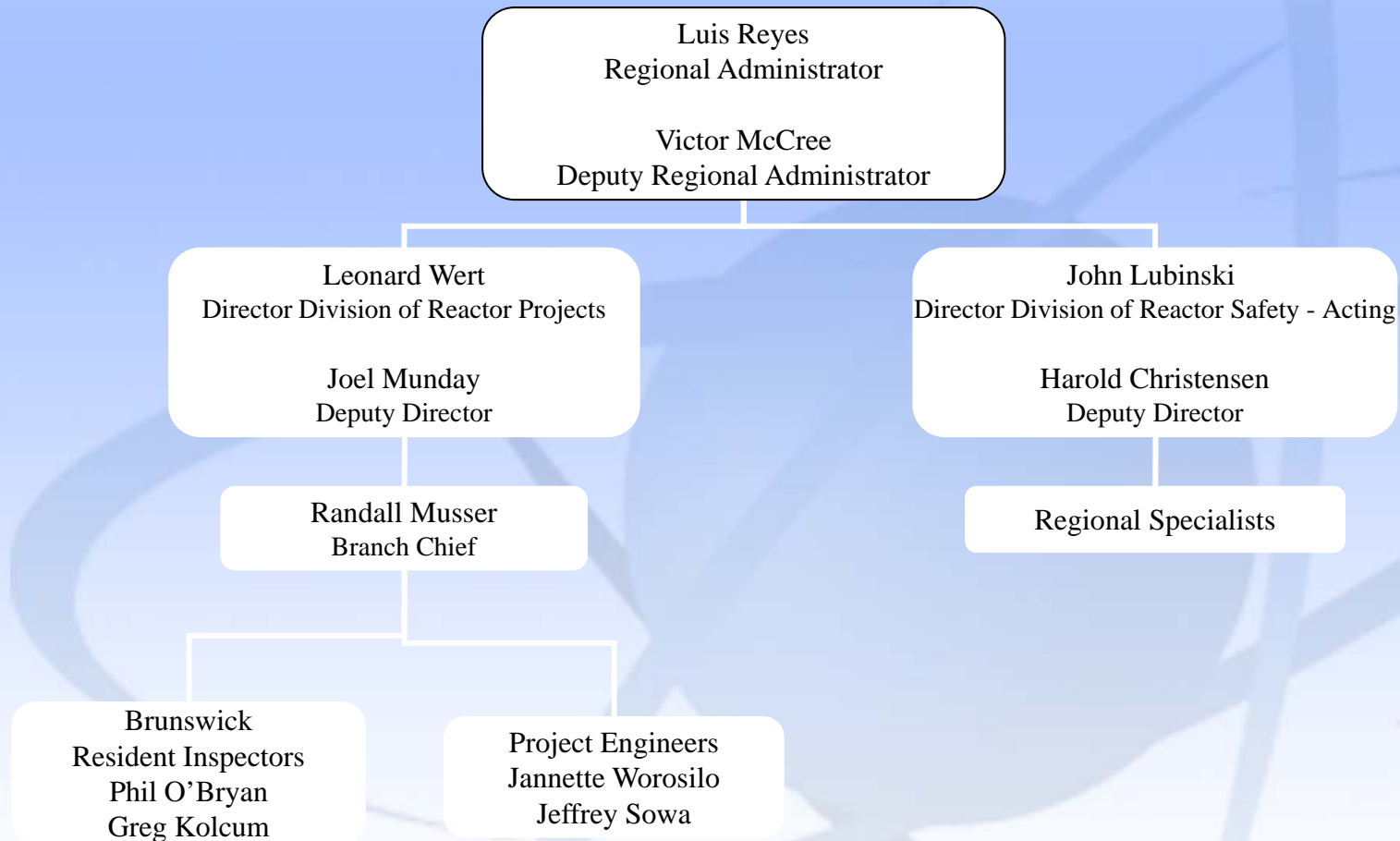


Agenda

- **Introduction**
- **Review of Reactor Oversight Process**
- **National Summary of Plant Performance**
- **Discussion of Plant Performance Results**

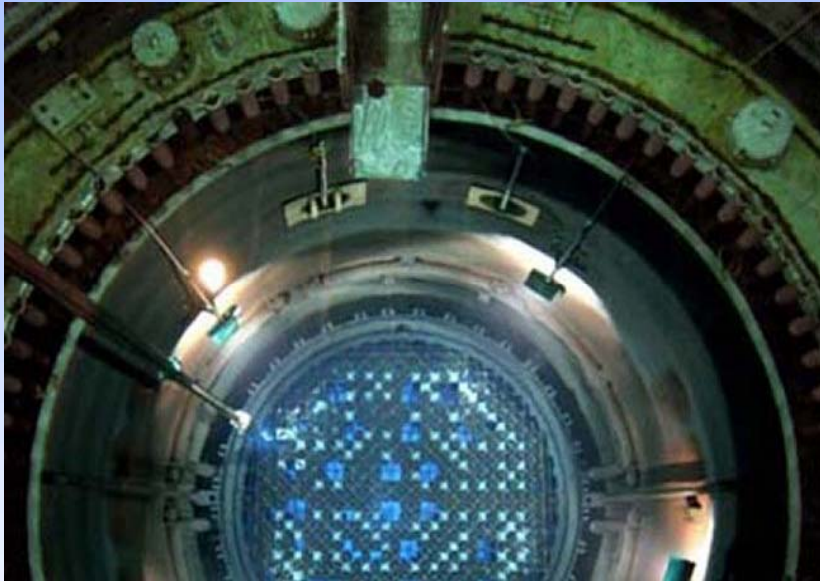


Region II Organization





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



What We Don't Do

- **Regulate nuclear weapons, military reactors, or space vehicle reactors**
- **Own or operate nuclear power plants**
- **Regulate some radioactive materials, such as X-rays and naturally occurring radon**



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**

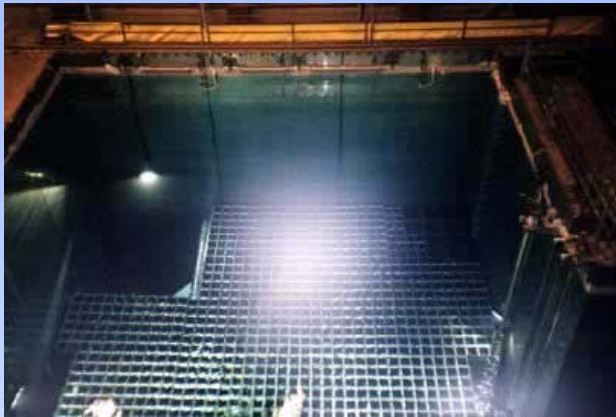


Assurance of Plant Safety

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



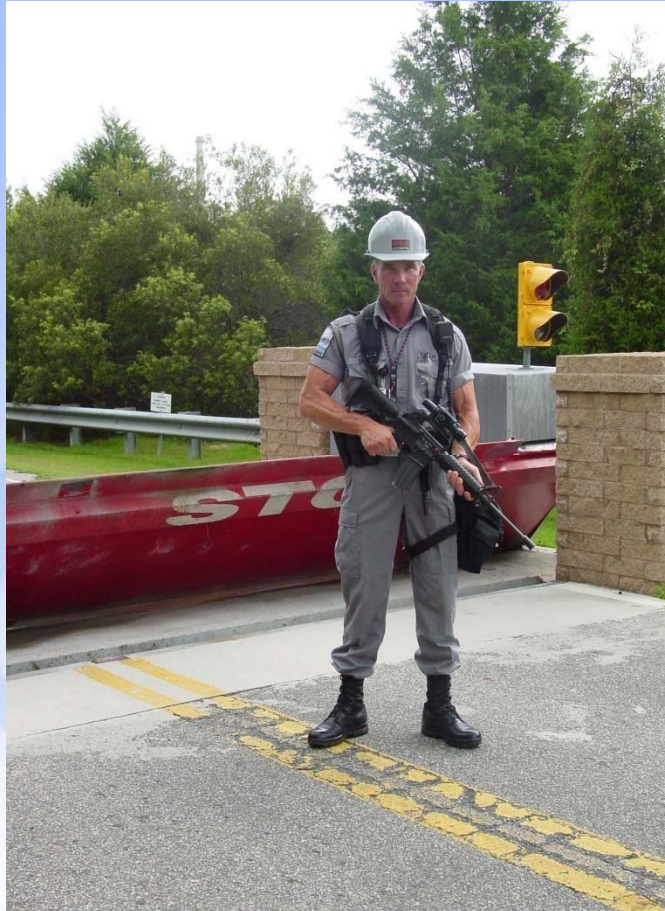
What We Do – Nuclear Waste



- **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.

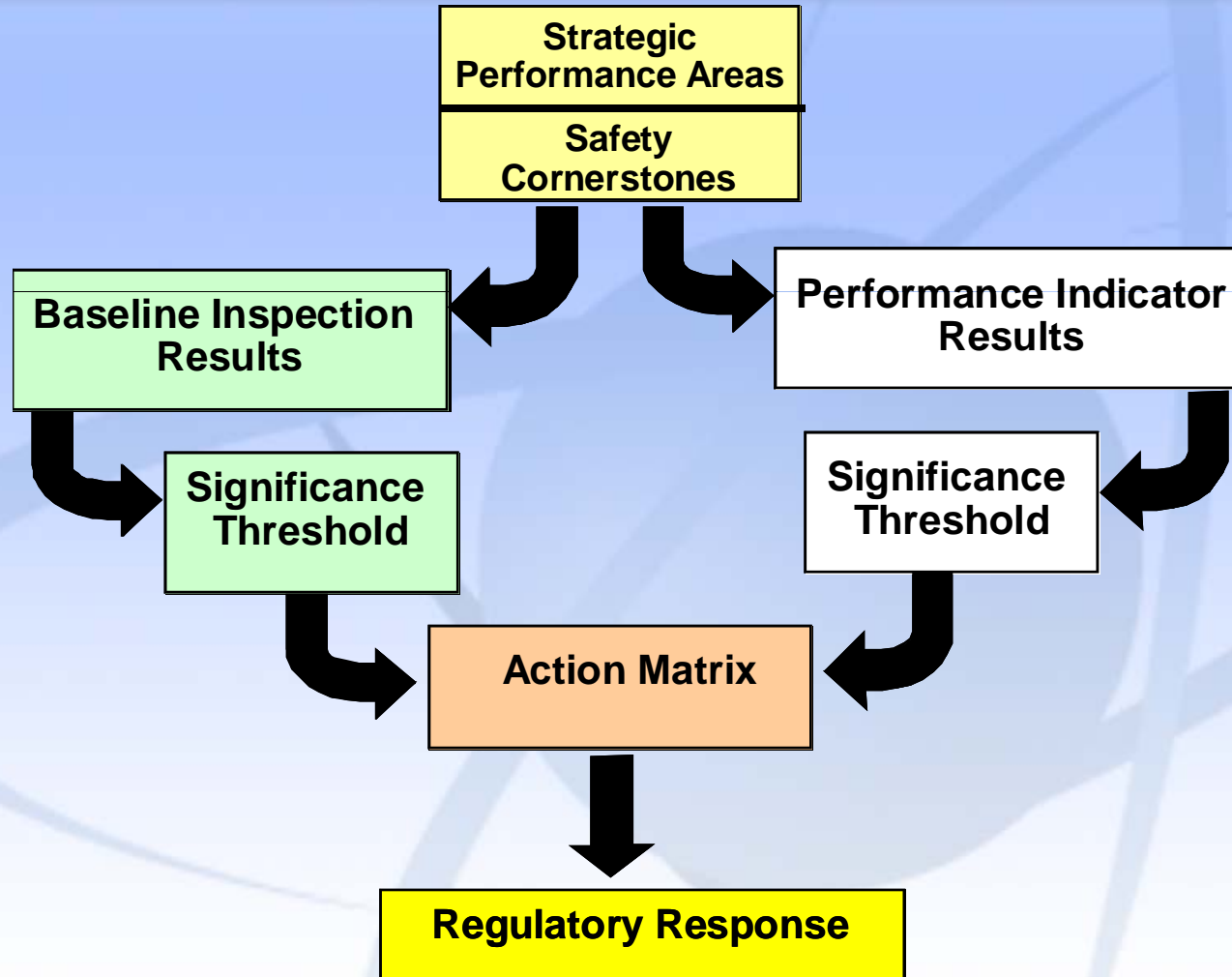


NRC Performance Goals

- **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
--------------------------	----------------------------	-----------------------------	---	---------------------------------



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



Brunswick Assessment Results

- **Licensee Response Column**
 - **January 1 – May, 2009**
- **Regulatory Response Column**
 - **May, 2009 – December 31, 2009**



Brunswick Inspection Activities

January 1 - December 31, 2009

- **15 Green inspection findings**
- **1 White inspection findings**
- **3937 total hours of inspections**



Brunswick Inspection Activities

January 1 - December 31, 2009

- **Diesel Generators Special Inspection**
- **Problem Identification and Resolution**
- **Security Baseline**
- **Occupational Radiation Inspection**
- **Emergency Preparedness**



Brunswick Annual Assessment Summary

January 1 - December 31, 2009

- **Progress Energy operated Brunswick in a manner that preserved public health and safety**
- **All cornerstone objectives were met**
- **NRC plans baseline inspections for 2010 and has performed a supplemental inspection for the white finding (no additional findings identified)**



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
- **Farideh Saba, Project Manager, NRR**
 - (301) 415-1447
- **Phil O’Bryan, Senior Resident Inspector**
 - (910) 457-9531
- **Greg Kolcum, Resident Inspector**
 - (910) 457-9531
- **Jannette Worosilo, Acting 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 (Toll Free)