U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

H. B. Robinson Annual Assessment Meeting

Reactor Oversight Program - 2010

Nuclear Regulatory Commission - Region II

Hartsville, South Carolina

March 24, 2011

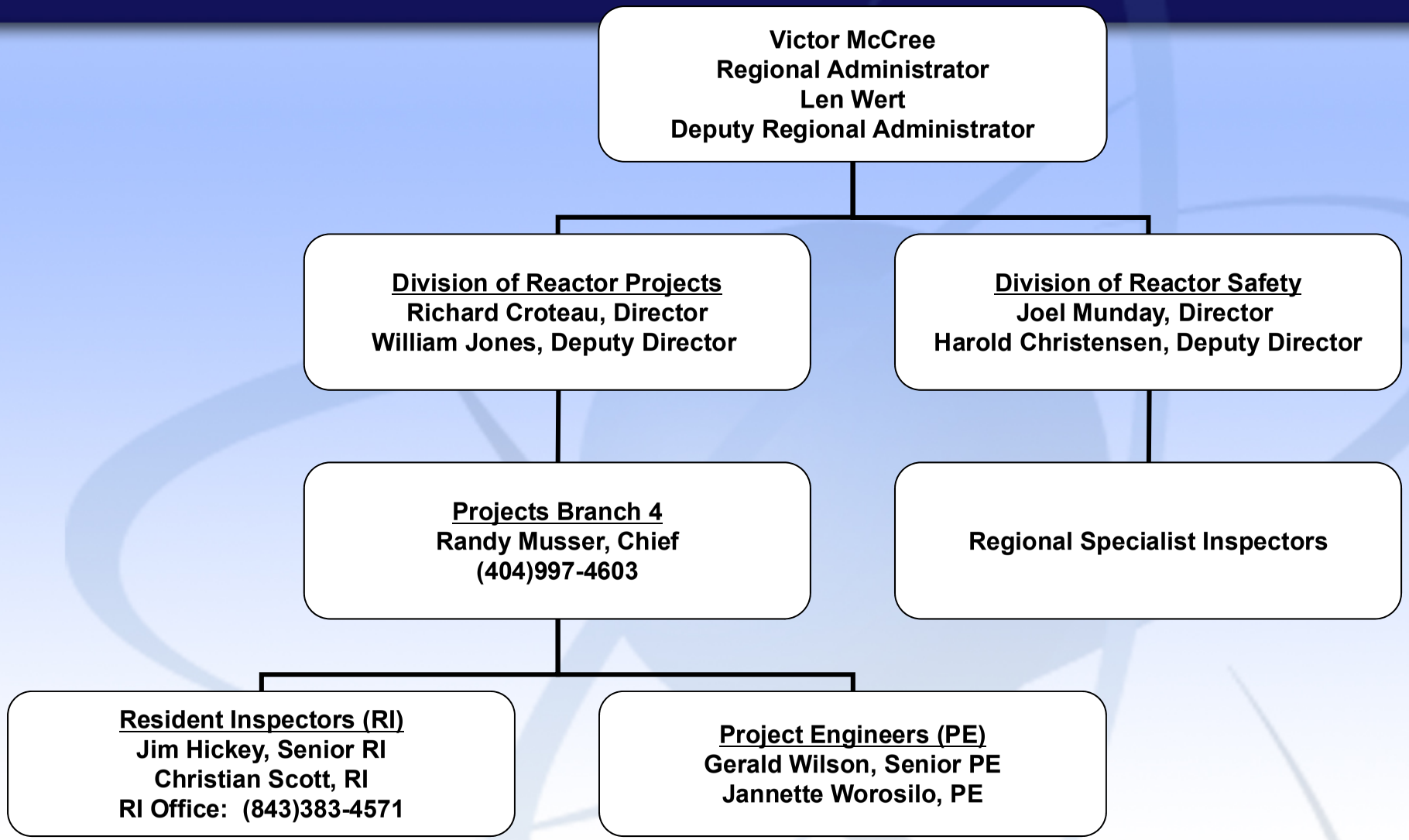
Purpose of Today's Meeting

- A public forum for discussion of the licensee's performance in 2010
- 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

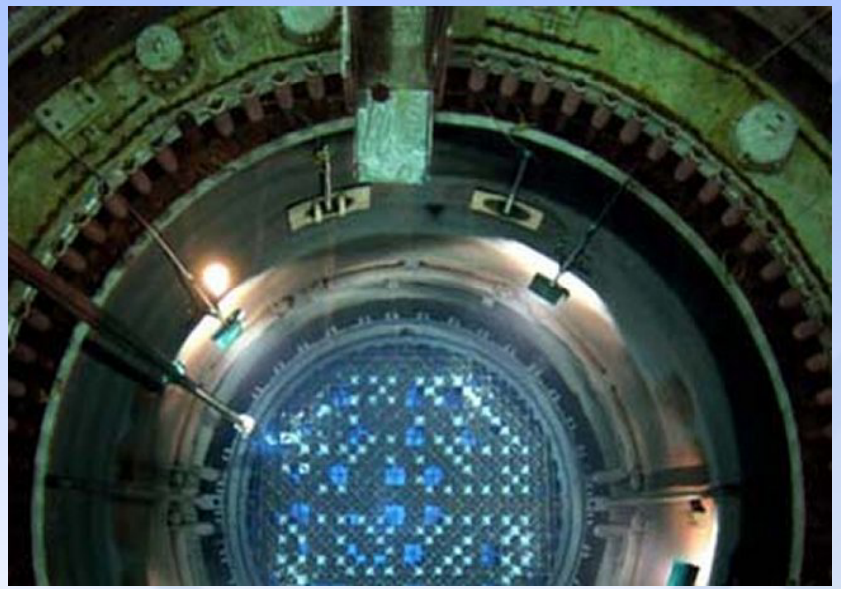
- Introduction
- Review of Reactor Oversight Process
- National Summary of Plant Performance
- Discussion of Plant Performance Results
- Licensee Response and Remarks
- NRC Closing Remarks
- Break
- NRC available to address public questions

Region II Organization



Protecting People and the Environment

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**

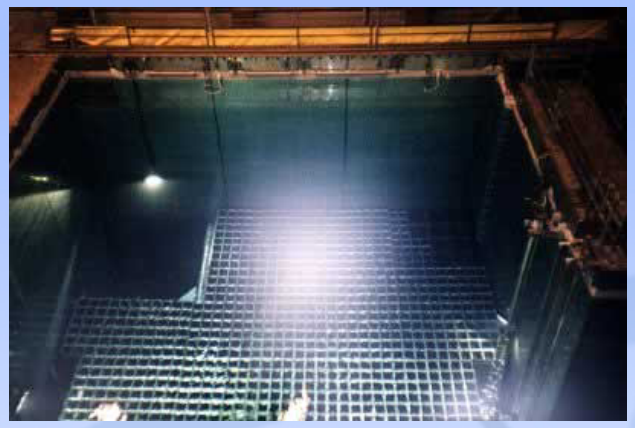
How We Regulate

- 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

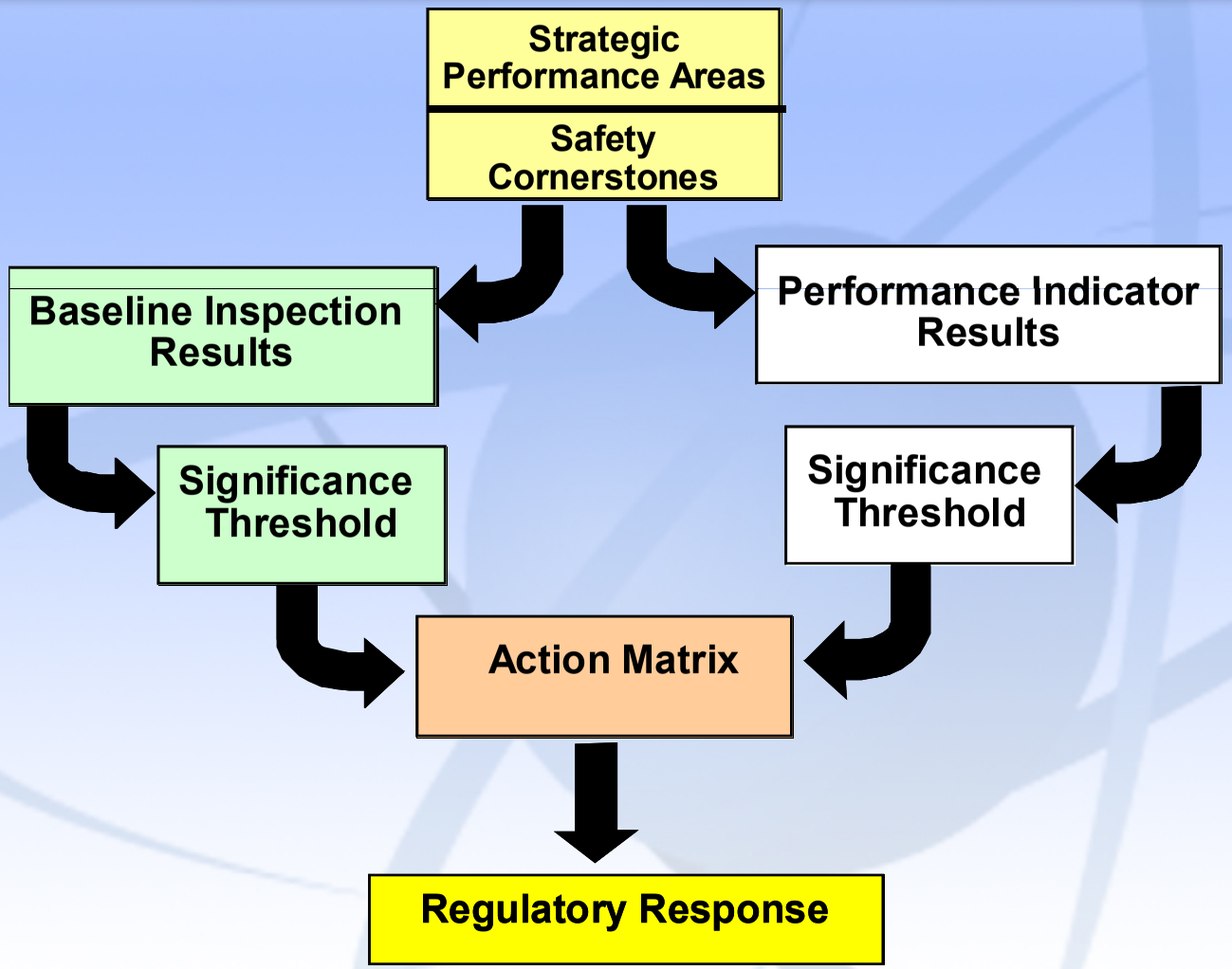
- NRC Requires:
  - Well-armed and well-trained security forces,
  - Surveillance and perimeter patrols,
  - State-of-the-art site access equipment and controls,
  - Physical barriers and detection zones, and
  - Intrusion detection systems and alarm stations.

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



Protecting People and the Environment

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 12/31/2010

Licensee Response	89
Regulatory Response	9
Degraded Cornerstone	6
Multiple/Repetitive Deg. Cornerstone	0
Unacceptable	0
Total	104

National Summary

- Performance Indicator Results (total for CY 2010)
  - Green 7009
  - White 23
  - Yellow 0
  - Red 0
- Total Inspection Findings (total for CY 2010)
  - Green 816
  - White 9
  - Yellow 2
  - Red 0

H. B. Robinson Assessment Results

	1st Qtr 2010	2nd Qtr 2010	3rd Qtr 2010	4th Qtr 2010
Action Matrix Column	Licensee Response Column	Licensee Response Column	Degraded Cornerstone Column	Degraded Cornerstone Column
Basis			Initiating Events White Performance Indicator - Unplanned Scrams Mitigating Systems White Finding – EDG Output Breaker White Finding – Ops Training Requalification	Initiating Events White Performance Indicator - Unplanned Scrams Mitigating Systems White Finding – EDG Output Breaker White Finding – Ops Training Requalification White Finding – Conduct of Ops

H. B. Robinson Assessment Results

January 1 - December 31, 2010

- 1st and 2nd Quarters within Licensee Response Column
  - All inspection findings were classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green).

- 3rd and 4th Quarters within the Degraded Cornerstone Column
  - One White PI in the Initiating Events Cornerstone
  - Three White findings in the Mitigating System Cornerstones.
  - Follow-up inspection per IP 95001 is being conducted during the week of March 21 for the White PI.
  - Follow-up inspection per IP 95002 will be conducted the week of May 31 for the three White inspection findings.

H. B. Robinson Inspection Activities

January 1 - December 31, 2010

- White Unplanned Scrams per 7000 Critical Hours performance indicator due to 4 scrams experienced during the assessment cycle.
- Two White findings were issued in the 3rd quarter of 2010 and the third finding was issued in the 4th quarter of 2010.
- A White finding was identified for the licensee's failure to correct a condition adverse to quality in "B" Emergency Diesel Generator output breaker 52/27B.

H. B. Robinson Inspection Activities

January 1 - December 31, 2010

- A White finding was identified for the licensee's failure to adequately design and implement operator training based on learning objectives as required by 10 CFR 55.59(c), in that training lesson material failed to identify the basis of a procedural action involving reactor coolant pump seal cooling in licensee procedure PATH-1, as required by the definition of systems approach to training, Element 3 in 10 CFR 55.4.

H. B. Robinson Inspection Activities

January 1 - December 31, 2010

- A White finding was identified for the licensee's failure to adequately implement requirements of multiple procedures required by Technical Specification 5.4.1, during an uncontrolled cooldown of the Reactor Coolant System and subsequent safety injection after a reactor trip on March 28, 2010.

H. B. Robinson Inspection Activities

January 1 - December 31, 2010

- **4833 total hours of inspections**
  - Post-Approval License Renewal
  - Triennial Fire Protection
  - Radiation Protection – Occupational and Rad Safety
  - Problem Identification and Resolution
  - Emergency Preparedness Inspection
  - Component Design Basis Inspection
  - In Service Inspection
  - Augmented Inspection
  - Special Inspection
- **3 White findings, 18 Green findings.**

Substantive Cross-Cutting Issue (SCCI)

January 1 - December 31, 2010

- **SCCI identified in the area of Human Performance**
  - **Four findings during 2010 assessment period shared a common contributing aspect of inadequate procedures.**
  - **The staff will monitor and follow-up on this SCCI via implementation of the baseline inspection program and the supplemental inspection (95002). The staff will primarily accomplish this in accordance with IP 71152, Identification And Resolution of Problems.**

H. B. Robinson
Annual Assessment Summary

January 1 - December 31, 2010

- Progress Energy operated H. B. Robinson in a manner that preserved public health and safety with moderate degradation in safety performance.
- All cornerstone objectives were met
- For the reminder of 2011:
  - NRC plans baseline inspections
  - Supplemental inspections
    - Inspection of one or two White inputs in a strategic performance area (IP 95001)
    - Inspection of one degraded cornerstone or any three white inputs in a strategic performance area (IP 95002)

Licensee Response and Remarks

Robert J. Duncan

Site Vice President

H. B. Robinson

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.

What Do You Think of the ROP???

The biennial ROP external survey is coming, and we want to hear from you!

Email ROPsurvey@nrc.gov to be notified when the ROP survey is available.

For information on the ROP survey, please visit our website at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/program-evaluations.html#section3

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

- Richard Croteau, Director, Division Reactor Projects (DRP)
  - (404) 997-4500
- William Jones, Deputy Division Director, DRP
  - (404) 997-4501
- Randall Musser, Branch Chief
  - (404) 997-4603
- James Hickey, Senior Resident Inspector
  - (843) 383-4571
- Christian Scott, Resident Inspector
  - (843) 383-4571
- Gerald J. Wilson, Senior Project Engineer
  - (404) 997-4613
- Jannette G. Worosilo, Project Engineer
  - (404) 997-4485
- Brenda Mozafari, Project Manager, NRR
  - (301) 415-2020

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)