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Protecting People and the Environment

Kewaunee Power Station
Annual Assessment Meeting

Reactor Oversight Program - 2008

Nuclear Regulatory Commission – Region III

Lisle, Illinois

April 28, 2009

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Purpose of Today's Meeting

- A public forum to discuss Kewaunee performance in 2008
- 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

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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

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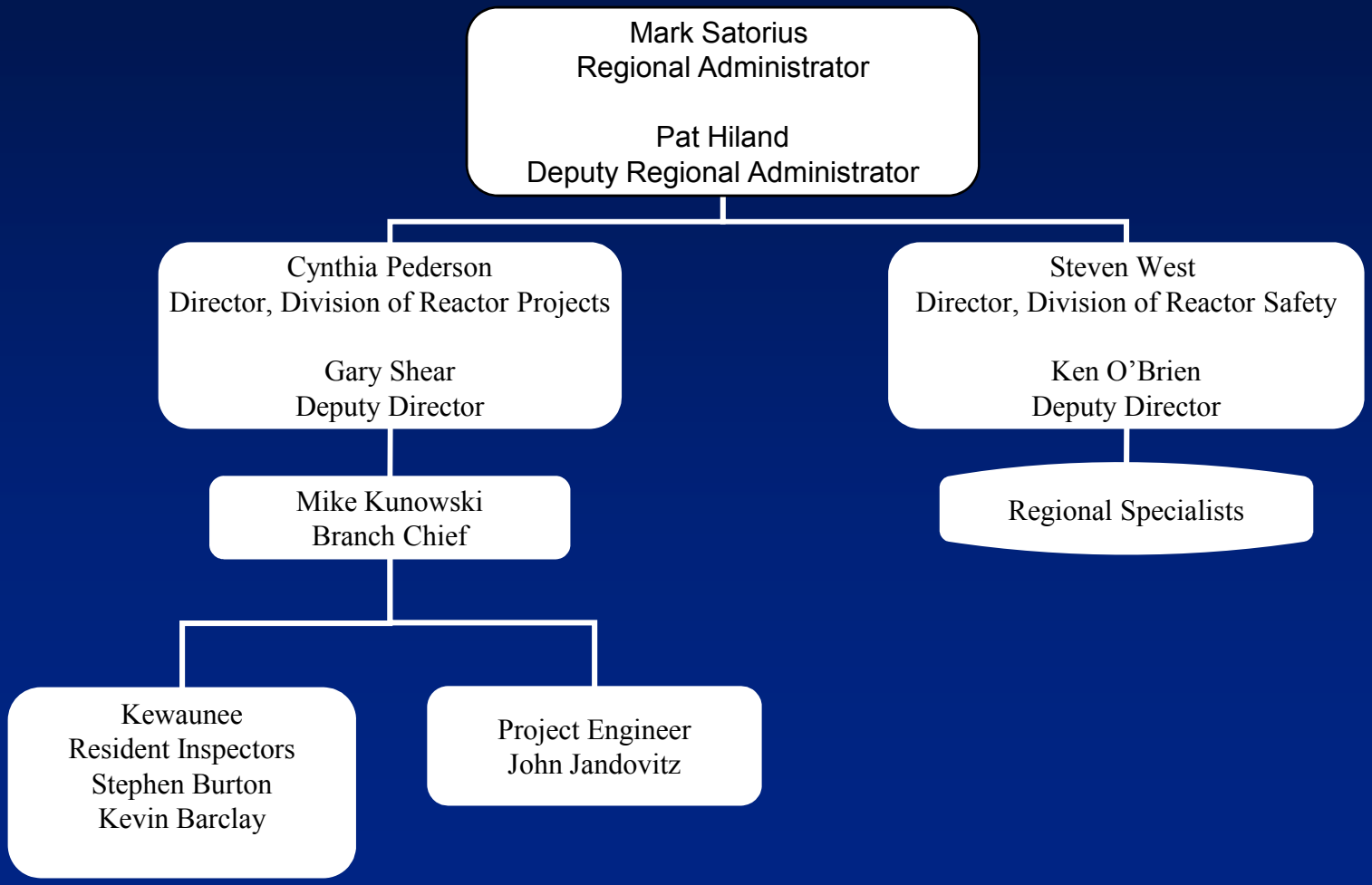
Region III Organization



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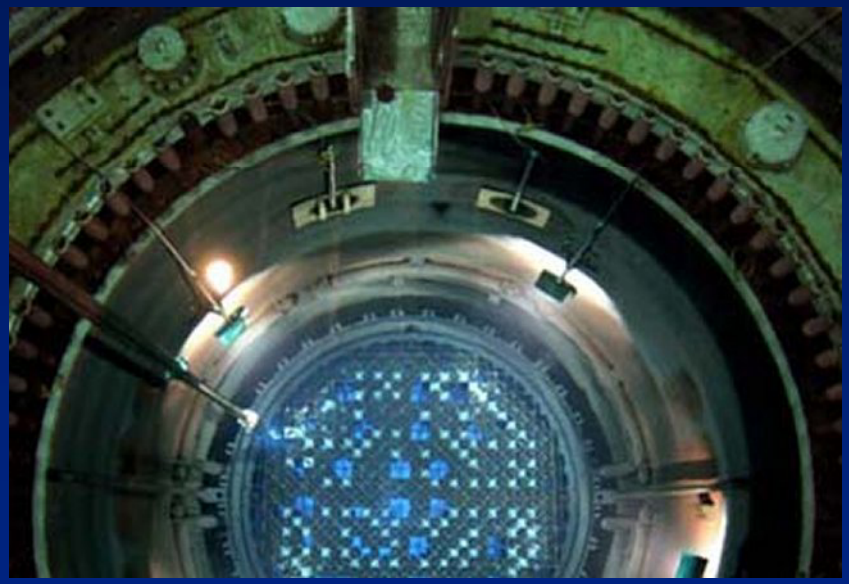
Our Mission



- 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.

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Some Nuclear Facts

- More than 100 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.

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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

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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

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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

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Assurance of Plant Safety

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

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What We Do – Nuclear Waste

- The NRC regulates:
  - Storage of spent reactor fuel in fuel pools or dry storage casks, and
  - A national spent fuel storage site--Yucca Mountain.

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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.

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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

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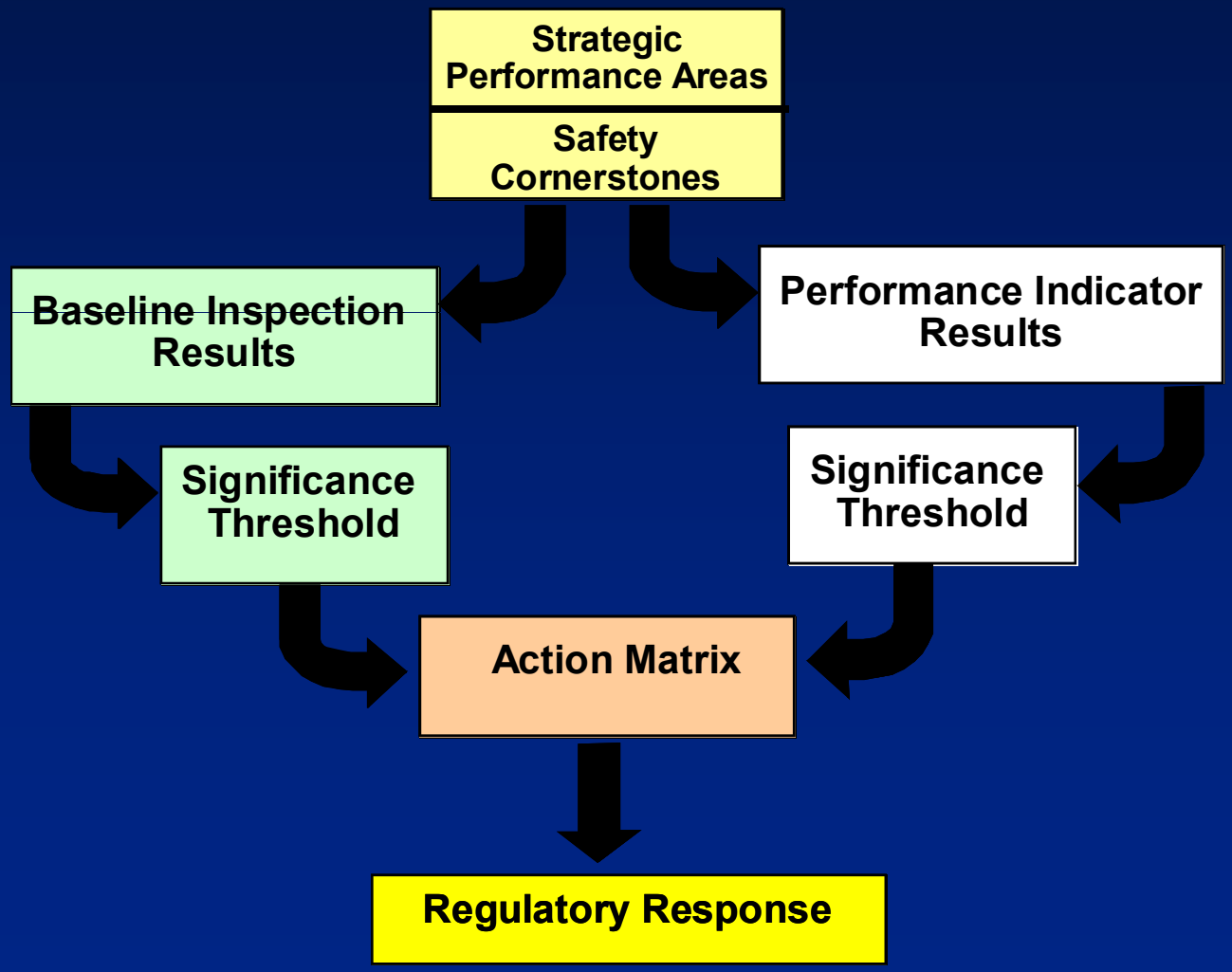
Reactor Oversight Process



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Examples of Baseline Inspections

- Equipment Alignment ~80 hrs/yr
- Component Design Bases ~400 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

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Significance Threshold

Performance Indicators

Green: Only Baseline Inspection
White: May increase NRC oversight
Yellow: Requires more NRC oversight
Red: Requires more NRC oversight

Inspection Findings

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

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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

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National Summary of Plant Performance

Status at End of 2008

Licensee Response	86
Regulatory Response	14
Degraded Cornerstone	3
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0
Total	104

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National Summary

- Performance Indicator Results (for 2008)
  - Green 1762
  - White 6
  - Yellow 0
  - Red 0

- Total Inspection Findings (for 2008)
  - Green 776
  - White 17
  - Yellow 0
  - Red 0

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Kewaunee Assessment Results

(January 1 - December 31, 2008)

- Plant performance for the most recent quarter was within the Regulatory Response column of the NRC's Action Matrix based on one White inspection finding (low safety to moderate significance) and all PIs indicating performance at a level requiring no additional NRC oversight.

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Inspection Activities

(January 1 - December 31, 2008)

- The inspections were performed by the Resident Inspectors and Regional Inspectors, including specialists in engineering, security, emergency preparedness, and radiation protection
- There were 8 Green Inspection Findings identified in 2008
- There was a Refueling Outage during the 2nd and 3rd Quarters of 2008

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Inspection Activities

(January 1 - December 31, 2008)

- Major team inspections included a biennial problem identification and resolution team inspection and a triennial fire protection inspection

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Annual Assessment Summary

(January 1 - December 31, 2008)

- Dominion Energy Kewaunee, Inc., operated Kewaunee in a manner that preserved public health and safety
- One White inspection finding in emergency preparedness

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Annual Assessment Summary

(January 1 - December 31, 2008)

- NRC plans baseline inspections and a supplemental inspection at Kewaunee for 2009

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Licensee Response and Remarks

Mr. Stephen Scace
Site Vice-President
Kewaunee Power Station

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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.

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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

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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
  - (800) 397-4209