

Kewaunee Power Station Annual Assessment Meeting

Reactor Oversight Process – 2012

Nuclear Regulatory Commission - Region III

Carlton, WI

June 25, 2013



Purpose of Today's Meeting

- A public forum for discussion of the licensee's performance in 2012
- 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

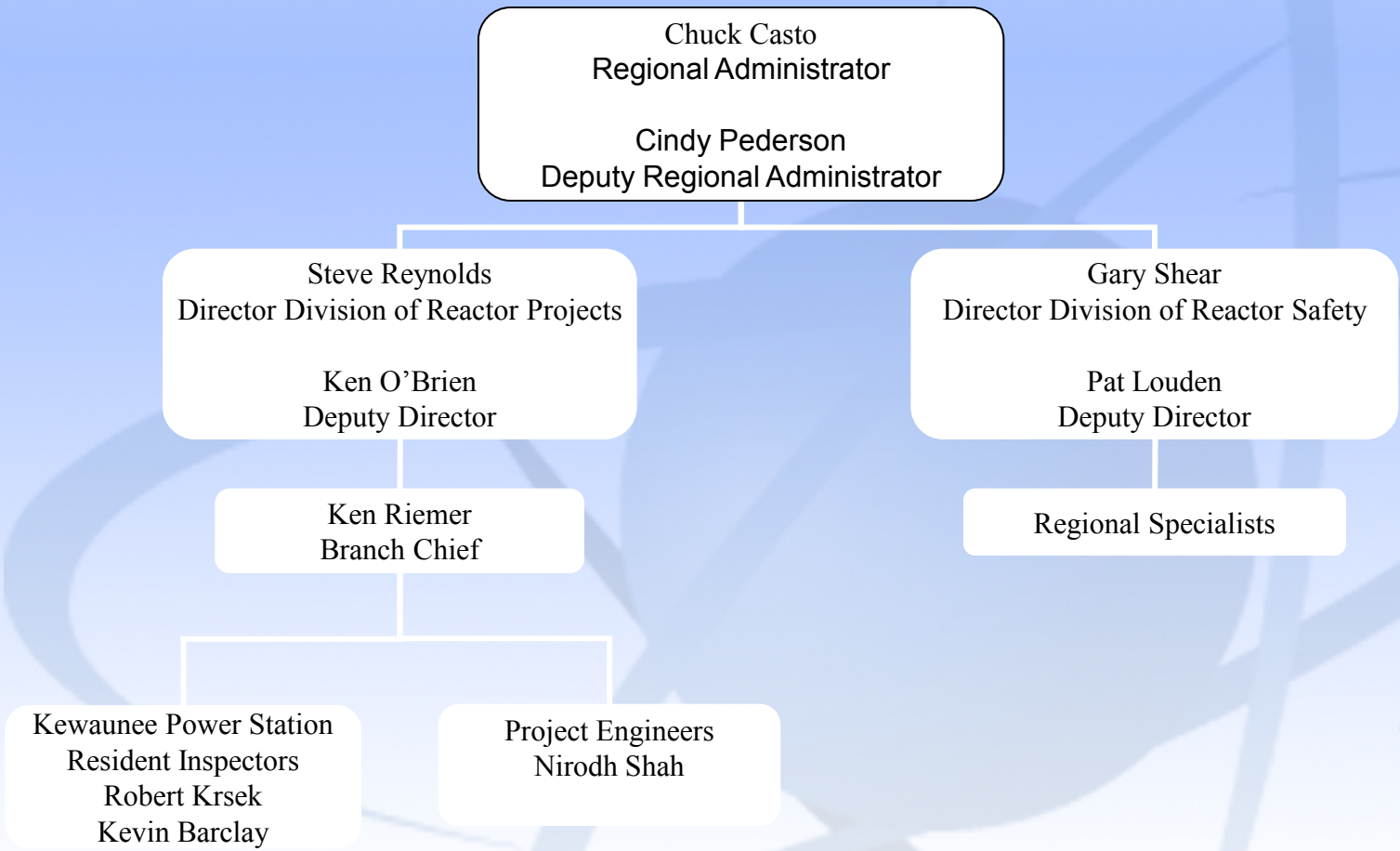


Agenda

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



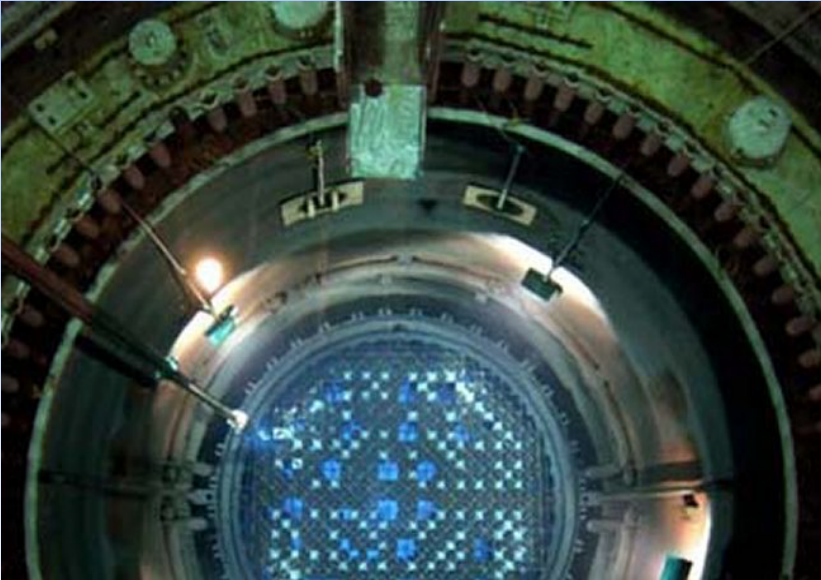
Region III Organization





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



- 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.



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

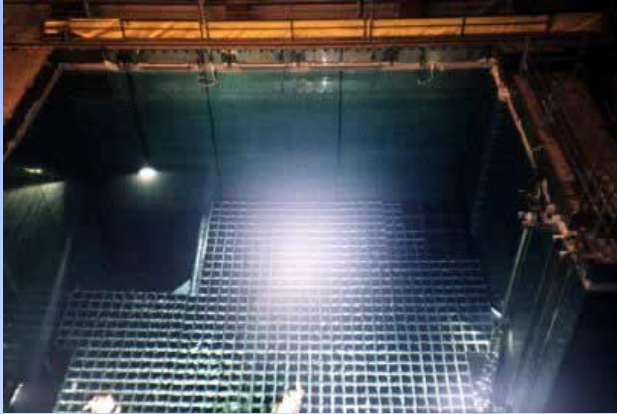


Assurance of Plant Safety

- 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, and
 - Any national spent fuel storage site.



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 .

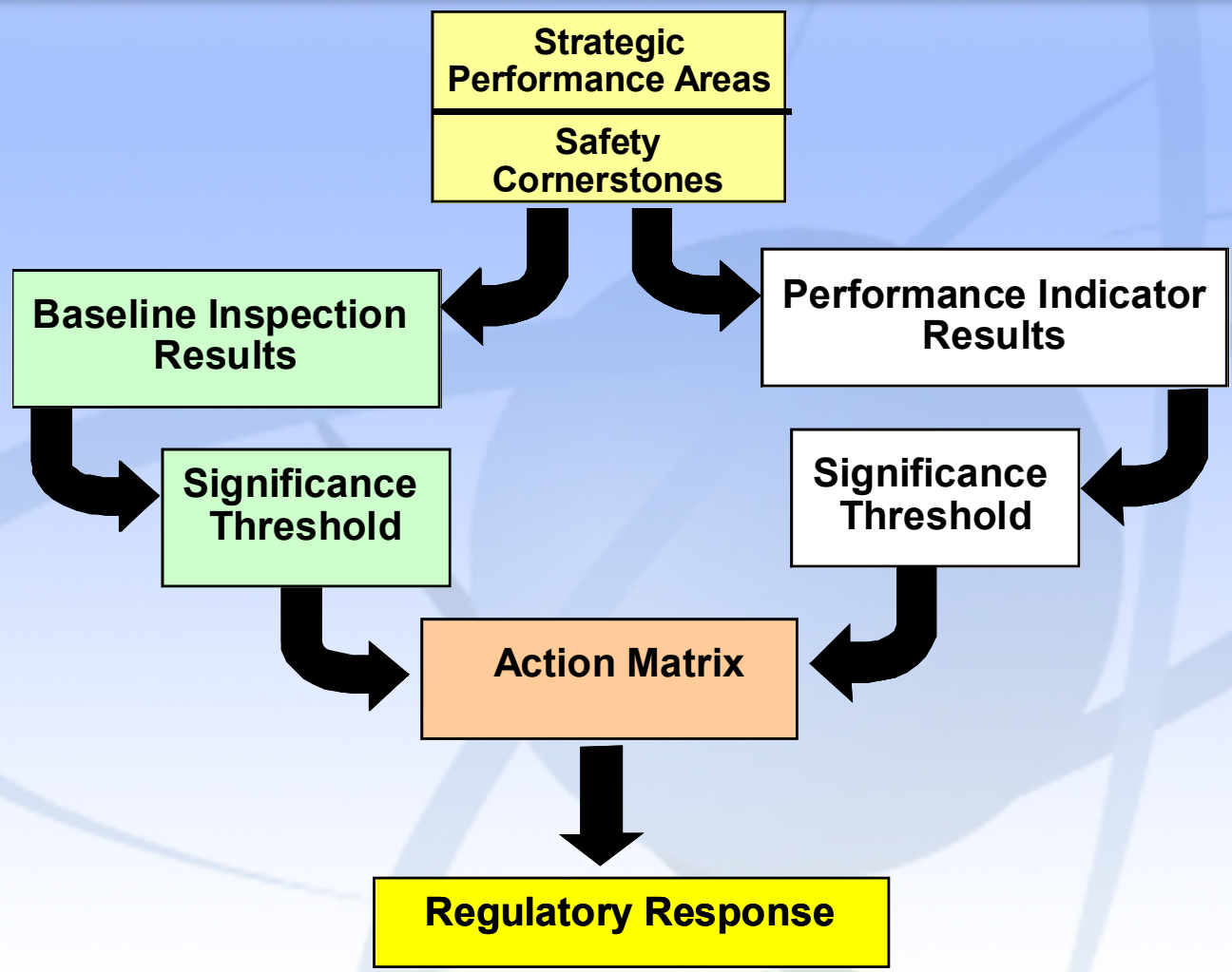


NRC Performance Goals

- **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 12/31/2012

Licensee Response	81
Regulatory Response	18
Degraded Cornerstone	3
Multiple/Repetitive Deg. Cornerstone	1
Unacceptable	0
IMC 0350 Oversight	1
Total	104



National Summary

- Performance Indicator Results for 2012*

– Green	6926
– White	23
– Yellow	0
– Red	0

*PIs are counted per plant per quarter

- Total Inspection Findings in 2012#

– Green	914
– White	16
– Yellow	1
– Red	1

Finding data current as of 3/04/2013



Kewaunee Power Station Assessment Results

January 1 - December 31, 2012

- Regulatory Response Column
 - White Finding in Emergency Preparedness dealing with Degraded Emergency Action Levels and Scheme
 - White Finding in Fire Protection regarding Fire Brigade License Basis
- Supplemental Inspections TBD



Safety Significant Findings or PIs

- FIN 05000305/2013007-01 Failure to Perform Announced Fire Drills In Accordance With Fire Protection Program
A White Finding involving the willful actions of the Kewaunee Fire Brigade Training Coordinator while conducting announced fire drills from August 2009 until December 2011. The licensee failed to perform required quarterly announced fire drills in that the announced fire drills were instead conducted as training sessions. (ADAMs Accession Number ML13121A317)
- VIO 05000305/2012503-01 Degraded Emergency Action Level Scheme
A White Finding involving the failure to identify a loss of the System Particulate, Iodine, and Noble Gas (SPING) monitor indication on the plant process computer system (PPCS) and Radserv stations. These indications support the timely classification of Emergency Action Levels (EALs) RG1.1, General Emergency, and RS1.1, Site Area Emergency. (ADAMs Accession Number ML13094A270)



Kewaunee Power Station Inspection Activities

January 1 - December 31, 2012

- Baseline Inspection – ~2500 hours
 - Resident Inspectors on site daily
 - Regional Inspectors from Lisle, IL
 - Maintenance
 - Operations
 - Engineering
 - Radiation Protection
 - Security
 - Emergency Preparedness



Kewaunee Power Station Inspection Activities

January 1 - December 31, 2012

- Team Inspections
 - License Renewal Inspection
 - Problem Identification & Resolution Inspection
 - Component Design Bases Inspection
- Refueling Outage
 - April 6, 2012 – May 10, 2012



Kewaunee Power Station Annual Assessment Summary

January 1 - December 31, 2012

- Dominion operated Kewaunee Power Station in a manner that preserved public health and safety
- All cornerstone objectives were met with one White Finding in EP and one White Finding in Fire Protection identified.



Kewaunee Power Station Annual Assessment Summary

January 1 - December 31, 2012

- Substantive cross-cutting issues— None
- The NRC conducted ROP baseline inspections at Kewaunee through May 31, 2013. Decommissioning Inspections will be carried out for the remainder of 2013 as well as two supplemental inspections regarding the White Finding in Fire Protection and the White Violation in EP.

Reactor Decommissioning Inspection Program

Robert Krsek, Senior Resident Inspector,
Kewaunee Power Station
Rhex Edwards, Reactor Inspector, DNMS



Objectives of Inspection Program

- Ensure safety of decommissioning workers, members of the public and the environment throughout the decommissioning process.
- Ensure licensee implementation of decommissioning activities are conducted in accordance with NRC requirements.
- Prior to license termination verify residual radioactivity reduced to a level that permits unrestricted release of property.



Focus of Inspection Program

- Obtain information through direct observation and verification of licensee activities onsite.
- Verify that licensee documents are implemented, and maintained as required by their NRC license.
- Verify licensee activities, organization, and controls are effective to provide reasonable assurance that decommissioning is conducted safely and in accordance with our requirements.



Regional Inspections

- Balanced look at a cross section of licensee activities important to the conduct of safe decommissioning.
- Schedule and level of inspection effort is based on decommissioning activities planned or performed.
- Provide flexibility in the application of inspection resources to promptly address any unexpected issues or problems.



Inspection Areas

- Organization and Management Controls
- Quality Assurance
- Spent Fuel Storage and Handling
- Maintenance and Surveillance
- Radiation Protection
- Radiological Effluent and Environmental Monitoring
- Security
- Safety Evaluations
- Emergency Preparedness
- Fire Protection
- Radioactive Waste Packaging and Transportation
- Evaluate a Particular Safety Concern or Aspect of Licensee Performance



Master Inspection Plan

- Inspection Program will change from Inspection Manual Chapter (IMC) 2515 for Operating Reactors to IMC 2561 for Decommissioned Reactors
- Inspection Plan Developed on an Annual Basis, based on:
 - Plant Status / Phase of Decommissioning
 - Licensee Performance, Staffing Plans, Effectiveness of Management Oversight, Timing and Scheduling of Significant Activities
 - Level of Inspection is Pre-Planned, Tailored to Planned Activities and Scheduled



ISFSI Inspection Program

- ISFSI = Independent Spent Fuel Storage Installation
- ISFSI inspections continue for as long as there is an ISFSI present at the site.
- Oversight is designed to protect the material from terrorist threats and to ensure the protection of the public and the environment.
- Inspectors examine whether licensee performs activities in accordance with licensing and regulatory requirements including radiation safety and quality assurance.



Region III Inspection Staff

Robert Krsek, Senior Resident Inspector
(920) 388-3156

Robert.Krsek@nrc.gov

Rhex Edwards, Reactor Inspector
(630) 829-9722

Rhex.Edwards@nrc.gov



Licensee Response and Remarks

Dominion Energy Kewaunee, Inc.



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



Actions in Response to the Japan Nuclear Accident

- Actions in response to Japan Nuclear Accident
Website: <http://www.nrc.gov/japan/japan-info.html>
- Mailbox for comments on staff actions:
JLD_Public.Resource@nrc.gov
- Office of Public Affairs Point of Contact:
OPA.resource@nrc.gov or 301-415-8200



NRC Representatives

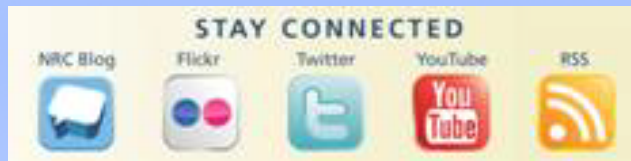
- Steve Reynolds, Director, Division Reactor Projects
 - (630) 829-9600
- Ken O'Brien, Deputy Division Director, DRP
 - (630) 829-9601
- Karl Feintuch, Project Manager, NRR
 - (301) 415-3079
- Rob Krsek, Senior Resident Inspector
 - (920) 388-3156
- Kevin Barclay, Resident Inspector
 - (920) 388-3516
- Ken Riemer, Branch Chief
 - (630) 829-9628
- Nick Shah, Project Engineer
 - (630) 829-9821



NRC Representatives

- Bob Orlikowski, Chief, Decommissioning Branch (ISFSI)
 - (630) 829-9753
- Viktoria Mitlyng, Public Affairs Officer
 - (630) 829-9662
- Prema Chandrathil, Public Affairs Officer
 - (630) 829-9663
- Diana Betancourt, Senior Resident Inspector (Acting) – {Point Beach}
 - (920) 755-2309
- Meghan Thorpe-Kavanaugh, Resident Inspector – {Point Beach}
 - (920) 755-2309
- NRC Region III Office Switchboard
 - (630) 829-9500 (800) 522-3025

NRC Social Media Channels



- Blog: <http://public-blog.nrc-gateway.gov/>
- Flickr: <http://www.flickr.com/photos/nrcgov/>
- Twitter: <https://twitter.com/#!/nrcgov>
- YouTube: <http://www.youtube.com/user/NRCgov>
- RSS: <http://www.nrc.gov/public-involve/listservers.html#rss>



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)



Reference Document Information

- *Decommissioning Nuclear Power Plants*; ML040340625
- 2012 Annual Assessment Letter; ML13060A111
- Final Significance Determination, Emergency Preparedness; ML13094A270
- NRC Follow-up Assessment Letter; ML13098A970
- Final Significance Determination, Fire Brigade; ML13121A317
- Termination of the Reactor Oversight Process; ML13151A375
- Transcripts of the April 24, 2013 Public Meeting re: Decommissioning Kewaunee Power Station; ML13168A558