

# ***Braidwood Station Annual Assessment Meeting***

**Reactor Oversight Process – 2011**

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**Nuclear Regulatory Commission – Region III**

**Lisle, Illinois**

**August 15, 2012**



# ***Purpose of Today's Meeting***

- **A public forum for discussion of the licensee's performance in 2011**
- **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**

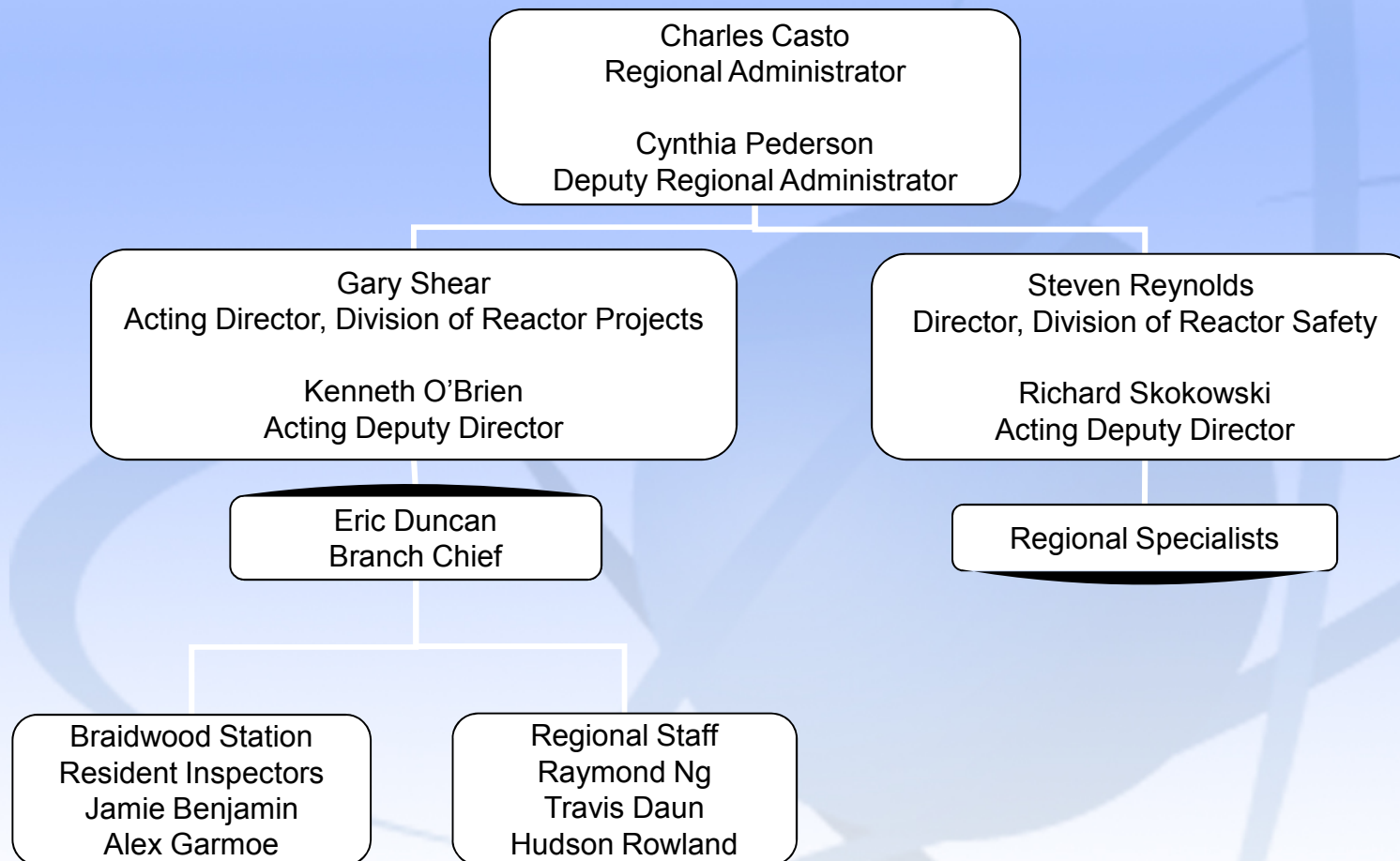


# ***Agenda***

- **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 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



- 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**

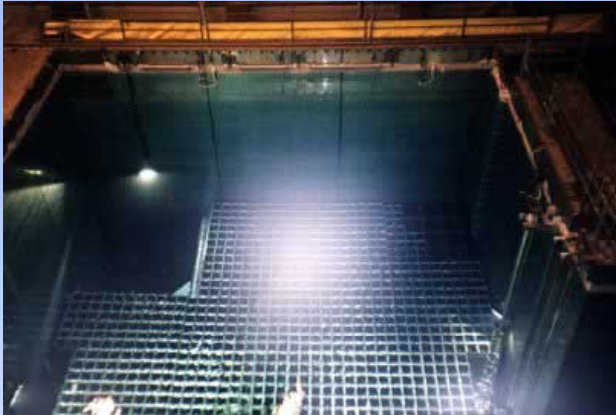


# ***Assurance of Plant Safety***

- **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**
  - **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
  - Intrusion detection systems and alarm stations





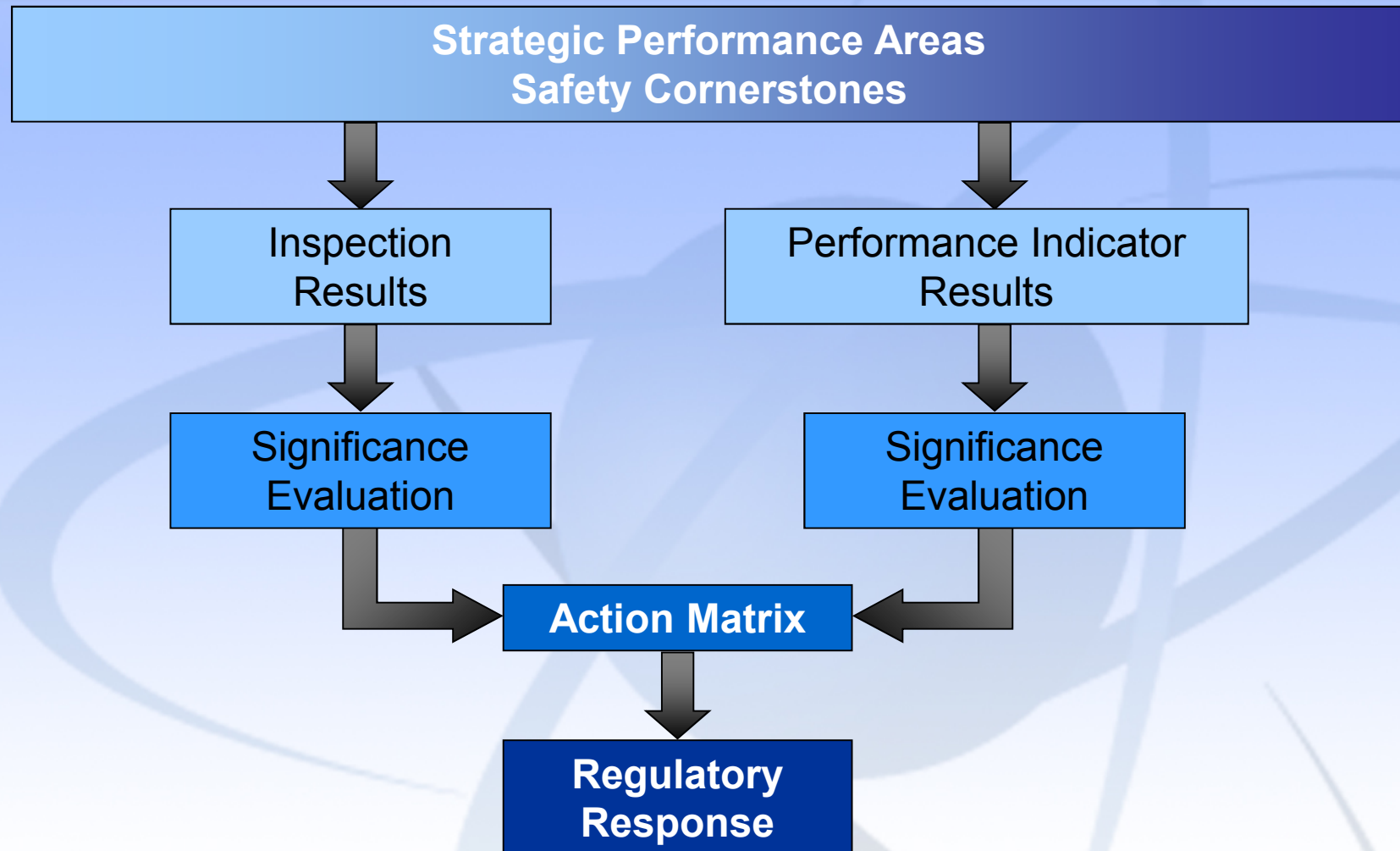
# ***NRC Performance Goals***

- **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
- **Operator Response** ~125 hrs/yr
- **Emergency Preparedness** ~80 hrs/yr
- **Worker Radiation Protection** ~95 hrs/yr
- **Corrective Action Case Reviews** ~60 hrs/yr
- **Corrective Action Program** ~250 hrs every 2 yrs
- **Rad Release Controls** ~110 hrs every 2 yrs
- **Triennial Fire Protection** ~250 hrs every 3 yrs



# ***Significance Threshold***

## **Performance Indicators**

- Green:** Only Baseline Inspection
- White:** Increases NRC oversight
- Yellow:** Increases NRC oversight
- Red:** Increases NRC oversight

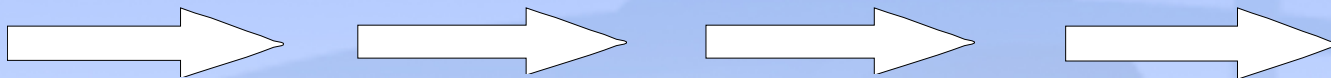
## **Inspection Findings**

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



# ***Action Matrix Concept***

<b>Licensee Response</b>	<b>Regulatory Response</b>	<b>Degraded Cornerstone</b>	<b>Multiple/Rep. Degraded Cornerstone</b>	<b>Unacceptable Performance</b>
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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 12/31/2011**

<b>Licensee Response</b>	<b>88</b>
<b>Regulatory Response</b>	<b>11</b>
<b>Degraded Cornerstone</b>	<b>3</b>
<b>Multiple/Repetitive Deg. Cornerstone</b>	<b>1</b>
<b>Unacceptable</b>	<b>0</b>
<b>IMC 0350 Oversight</b>	<b>1</b>
<b>Total</b>	<b>104</b>





# National Summary

- Performance Indicator Results for 2011<sup>1</sup>
  - Green 6585
  - White 9
  - Yellow 0
  - Red 0
- Total Inspection Findings in 2011<sup>2</sup>
  - Green 846
  - White 13
  - Yellow 2
  - Red 0

1 Pls are counted per plant per quarter

2 Finding data does not include security findings



# ***Braidwood Station Assessment Results***

**January 1 - December 31, 2011**

- **Unit 1 was in the Licensee Response column throughout 2011**
- **Unit 2 was in the Licensee Response column throughout 2011**
- **There was no substantive cross-cutting issue identified during 2011**



# ***Safety Significant Findings or Pls***

- **One White Performance Indicator for Unit 2 was submitted for the 2<sup>nd</sup> quarter of 2012**
- **The White Performance Indicator was associated with the Cooling Water System of the Unit 2 Mitigating Systems Performance Index**
- **Unit 2 transitioned to the Regulatory Response column in 2<sup>nd</sup> quarter 2012**
- **A 95001 Supplemental Inspection will be performed**



# ***Braidwood Station Inspection Activities***

## **January 1 - December 31, 2011**

### **Examples of Major Inspection Activities in 2011:**

- **Special Inspection (March 31 to May 4)**
- **Temp. Inst. 183 (April 1 to April 21)**
- **Unit 2 Refueling Outage (April 17 to May 12)**
- **Initial Licensed Operators Examination (June 20 to June 30)**
- **Modification / 50.59 Inspection (September 12 to September 30)**
- **ISFSI Inspection (October 27 to December 23)**
- **Triennial Heat Sink Inspection (November 28 to December 2)**



# ***Braidwood Station Annual Assessment Summary***

**January 1 - December 31, 2011**

- **Exelon operated Braidwood Station in a manner that preserved public health and safety**
- **All cornerstone objectives were met**





# ***Braidwood Station Annual Assessment Summary***

**January 1 - December 31, 2011**

- **No substantive cross-cutting issue was identified at Braidwood Station**
- **NRC plans to perform baseline inspections at Braidwood Station for 2012 for both units**
- **NRC also plans to perform a 95001 supplemental inspection for Unit 2 (Not yet scheduled)**



# ***Licensee Response and Remarks***

**Dan Enright  
Site Vice President, Braidwood  
Exelon Nuclear**



## ***Open to the Public***

- **The NRC places a high priority on keeping the public and stakeholders informed of its activities**
- **At [www.nrc.gov](http://www.nrc.gov), you can:**
  - **Find public meeting dates and transcripts**
  - **Read NRC testimony, speeches, press releases, and policy decisions**
  - **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](http://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](mailto:JLD_Public.Resource@nrc.gov)
- Office of Public Affairs Point of Contact:  
[OPA.resource@nrc.gov](mailto:OPA.resource@nrc.gov) or 301-415-8200





# ***NRC Representatives***

- **Gary Shear, Acting Director, Division of Reactor Projects**
  - (630) 829-9600
- **Kenneth O'Brien, Acting Deputy Division Director, DRP**
  - (630) 829-9602
- **Joel Wiebe, Project Manager, NRR**
  - (301) 415-6606
- **Jamie Benjamin, Senior Resident Inspector**
  - (815) 458-2852
- **Alex Garmoe, Resident Inspector**
  - (815) 458-2852
- **Raymond Ng, Project Engineer**
  - (630) 829-9574
- **Eric Duncan, Branch Chief**
  - (630) 829-9620



# ***NRC Representatives***

- **Christine Lipa, Chief, Decommissioning Branch (ISFSI)**
  - (630) 829-9834
- **Viktoria Mitlyng, Public Affairs Officer**
  - (630) 829-9662
- **Prema Chandrathil, Public Affairs Officer**
  - (630) 829-9663
- **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:** <http://twitter.com/#!/nrcgov>
- **YouTube:** <http://www.youtube.com/user/NRCgov>
- **RSS:** <http://www.nrc.gov/public-involve/listserver.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)

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