

# ***Davis-Besse Annual Assessment Meeting***

**Reactor Oversight Process – 2011**

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**Nuclear Regulatory Commission - Region III**

**Oak Harbor, OH**

**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**

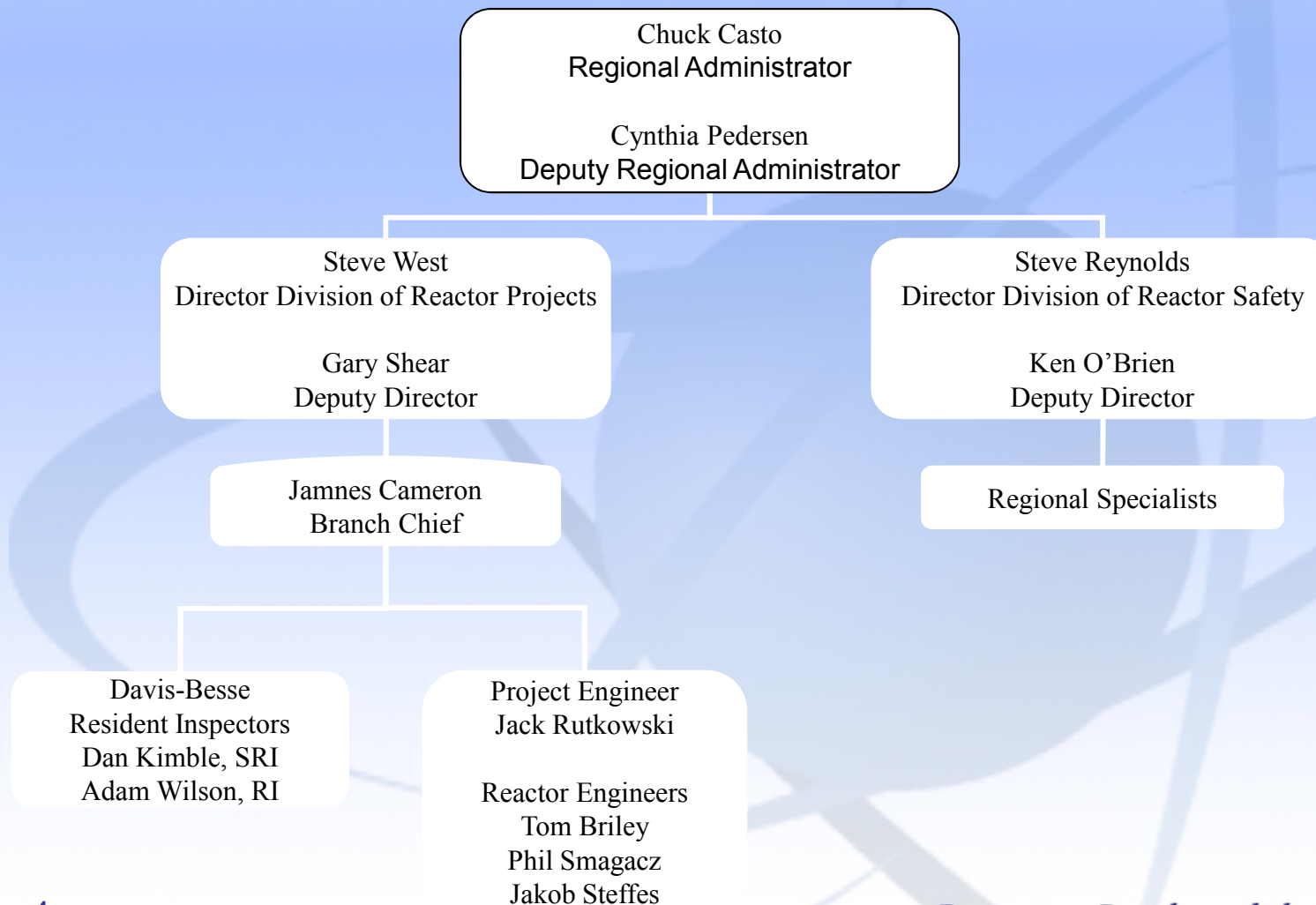


# ***Agenda***

- **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 sources, 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**

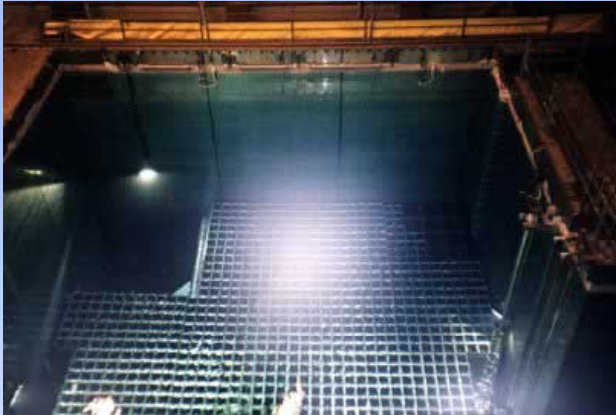


# ***Assurance of Plant Safety***

- **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.





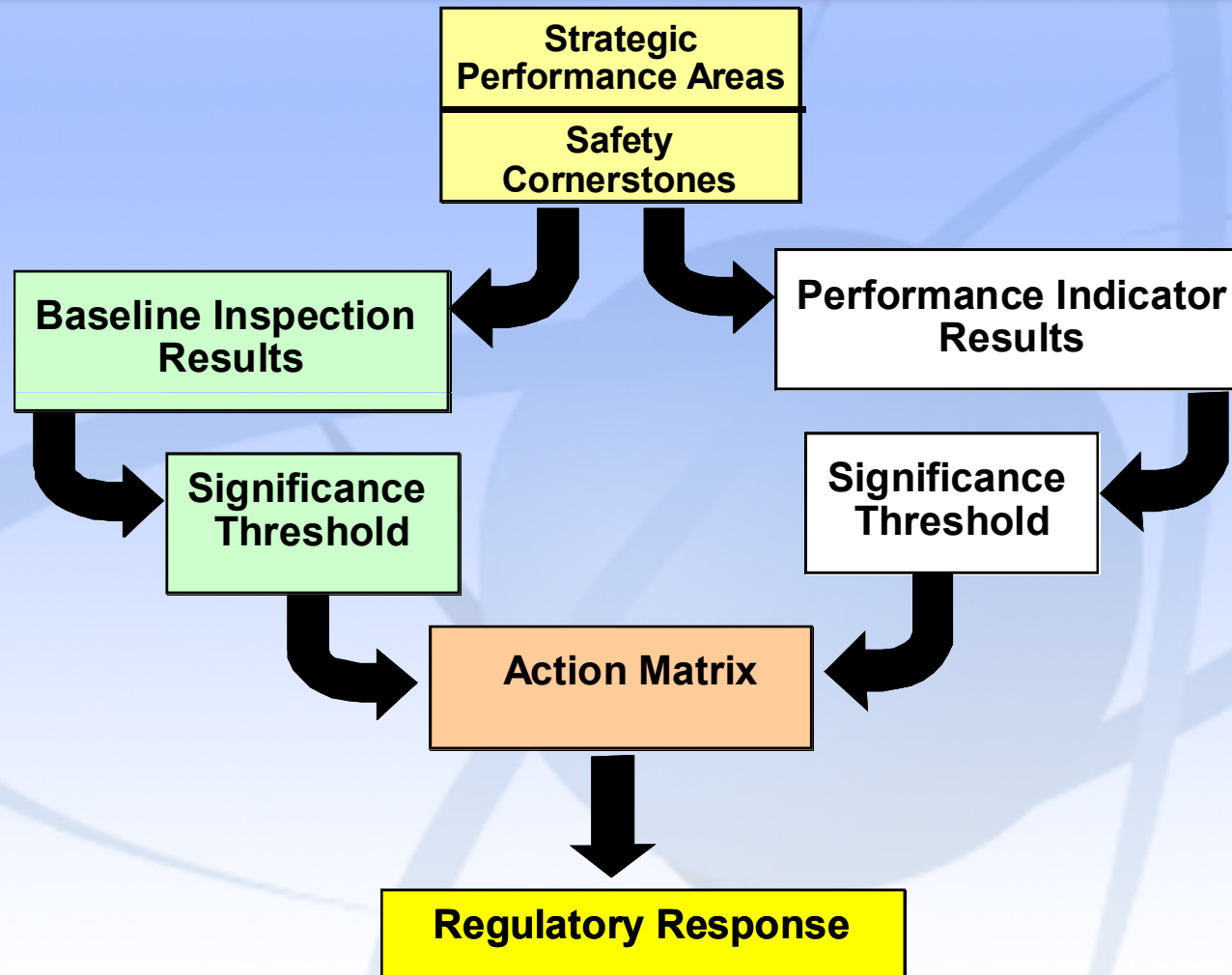
# ***NRC Performance Goals***

- **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

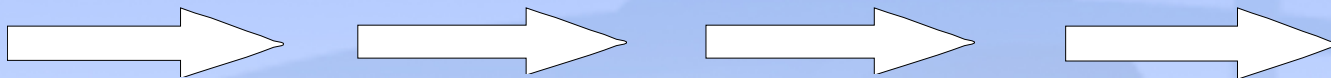
## **Inspection Findings**

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



# ***Action Matrix Concept***

<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\***

– Green	6585
– White	9
– Yellow	0
– Red	0

\*PIs are counted per plant per quarter

- **Total Inspection Findings in 2011#**

– Green	846
– White	13
– Yellow	2
– Red	0

# Finding data current as of 2/24/2012 and does not include security findings



# ***Davis-Besse Assessment Results***

**January 1 - December 31, 2011**

- **Davis-Besse was in the Licensee Response Column of the NRC's ROP Action Matrix for 2011.**



# ***Davis-Besse Inspection Activities***

## **January 1 – December 31, 2011**

- **2 resident inspectors on site – residents make four quarterly inspection reports per year and walk through the plant every day**
- **5,392 hours of inspection and related activities, including over 600 hours of inspection for the reactor pressure vessel head replacement**



# ***Davis-Besse Inspection Activities***

**January 1 - December 31, 2011**

- **Mid-cycle outage for the replacement of the reactor pressure vessel head from Oct 1 to Dec 2**
- **Shield building inspections upon discovery of cracking within the structure**
- **Ongoing license renewal inspections**



# ***Davis-Besse Annual Assessment Summary***

**January 1 - December 31, 2011**

- **FENOC operated Davis-Besse in a manner that preserved public health and safety**
- **All cornerstone objectives were met**





# ***Davis-Besse Annual Assessment Summary***

**January 1 - December 31, 2011**

- **One substantive cross-cutting issue in human performance**
- **NRC plans baseline inspections at Davis-Besse for 2012**



# ***Licensee Response and Remarks***

***Brian Boles***

**Director, Site Operations, Davis-Besse  
FirstEnergy Nuclear Operating Company**



## ***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; 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](http://www.nrc.gov)
  - Select “What We Do” for Public Affairs



# ***NRC Representatives***

- **Dan Kimble, Senior Resident Inspector**
  - (419) 244-4494
- **Adam Wilson, Resident Inspector**
  - (419) 244-4494
- **Jamnes Cameron, Branch Chief**
  - (630) 829-9833
- **Viktoria Mitlyng, Public Affairs Officer**
  - (630) 829-9662





# 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/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)