

Perry Nuclear Power Station Annual Assessment Meeting

2010 Reactor Oversight Program

Nuclear Regulatory Commission - Region III

Perry, OH

August 11, 2011



Purpose of Today's Meeting

- A public forum for discussion of FirstEnergy's performance at Perry in 2010
- NRC will address the performance issues identified in the annual assessment letter
- FirstEnergy 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
- FirstEnergy Response and Remarks
- NRC Closing Remarks
- Break
- NRC available to address public questions



Who We Are

- The Atomic Energy Commission was established by Congress in 1946 to encourage the use of nuclear power and regulate its safety
- In 1974 Congress divided the AEC into two parts
 - U.S. Nuclear Regulatory Commission
 - Department of Energy
- The NRC is headed by a Chairman and four Commissioners, all appointed by the President and confirmed by the Senate for staggered five-year terms.



Chairman
Gregory B.
Jaczko



Commissioner
Kristine L.
Svinicki



Commissioner
George
Apostolakis



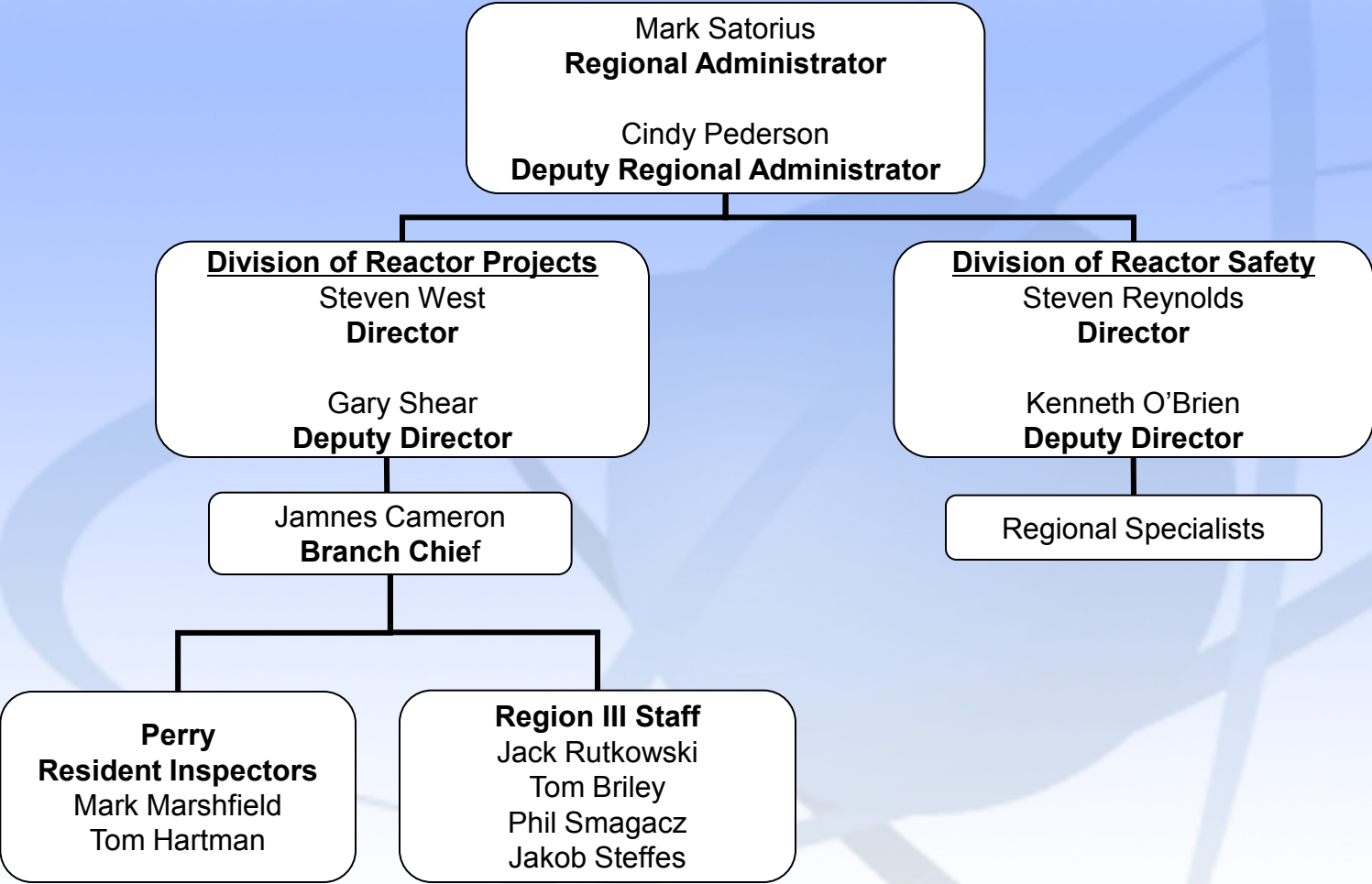
Commissioner
William D.
Magwood, IV



Commissioner
William C.
Ostendorff



Region III Organization





Our Mission



- To 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 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

- We do not regulate nuclear weapons, military reactors, or space vehicle reactors
- We do not own or operate nuclear power plants
- We do not regulate some radiation 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

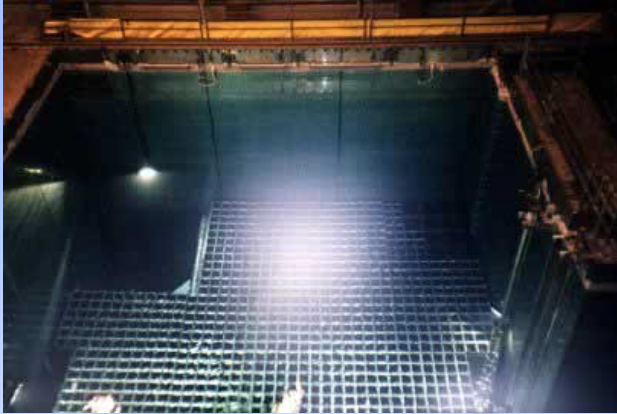


Assurance of Plant Safety

- 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
 - Licensing of national spent fuel storage sites when they are identified.



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 Strategic Plan Goals

Safety

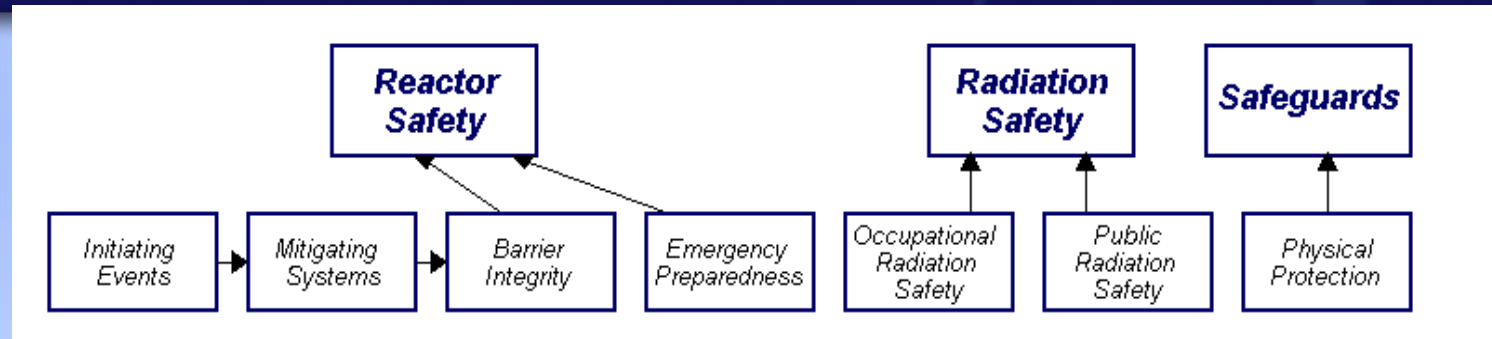
Ensure adequate protection of public health and safety and the environment.

Security

Ensure adequate protection in the secure use and management of radioactive materials.



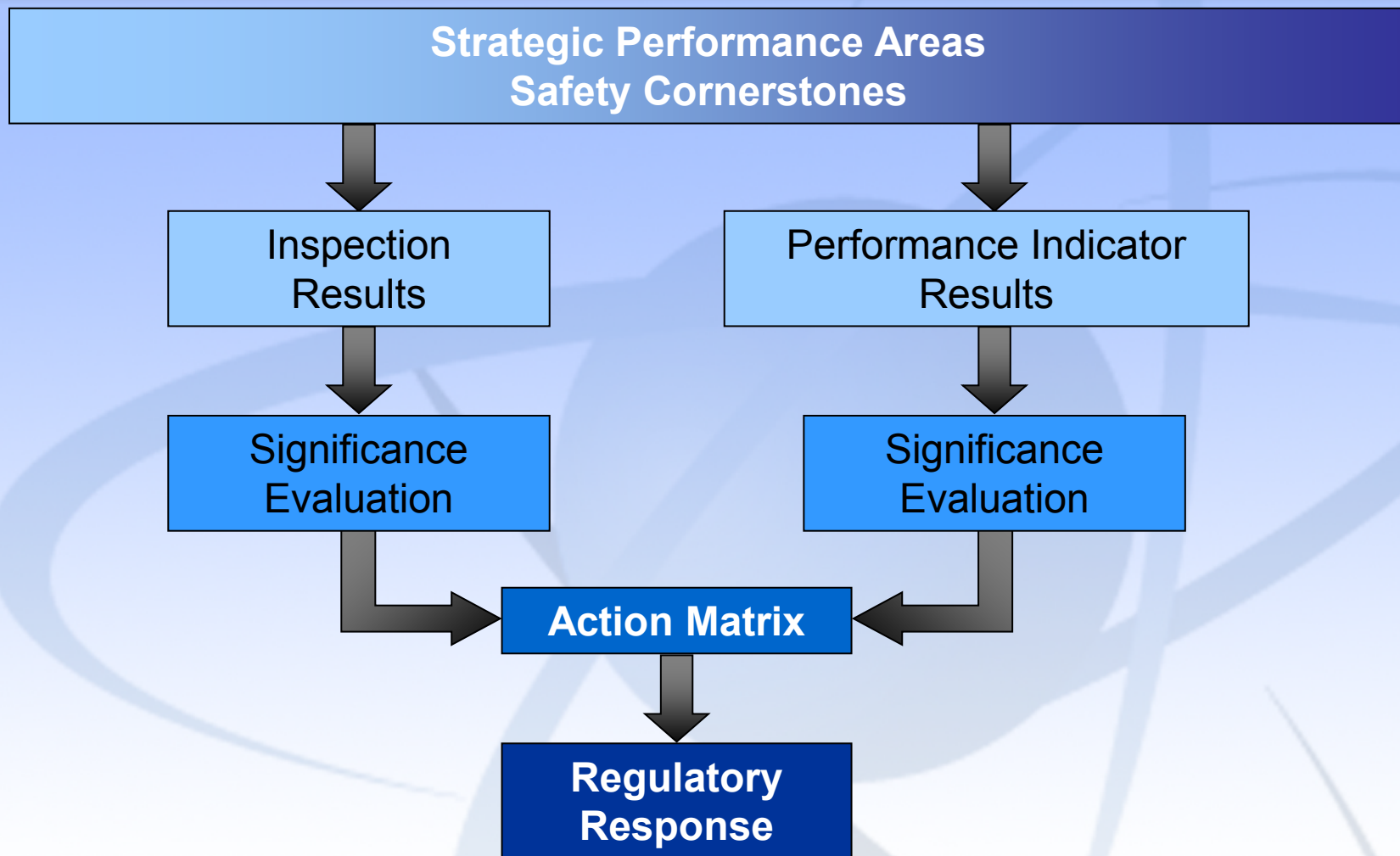
Reactor Oversight Process



- 3 Strategic Performance Areas are divided into 7 Cornerstones of Safety
- Inspection Findings and Performance Indicators are assigned to a Cornerstone
- Inspection Findings can be assigned a cross-cutting aspect (a causal factor for the performance deficiency) in:
 - Human Performance,
 - Problem Identification and Resolution, or
 - Safety Conscious Work Environment
- Numerous findings with a common cross-cutting aspect could result in a “Substantive Cross-Cutting Issue”



Reactor Oversight Process





Examples of Baseline Inspections

Some of the Routine Inspections Conducted at Every Plant

- 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:	Baseline Inspection Program
White:	Increased NRC oversight
Yellow:	Increased NRC oversight
Red:	Increased NRC oversight

Inspection Findings

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



Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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- Increased safety significance of findings and performance indicators results in movement to the right
- Movement to the right results in:
 - NRC supplemental inspections
 - Increased Management Involvement
 - Increased 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
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Total	104



National Summary

- Performance Indicator Results for 2010
 - Green 7009
 - White 23
 - Yellow 0
 - Red 0
- Total Inspection Findings in 2010
 - Green 816
 - White 9
 - Yellow 2
 - Red 0



Perry Assessment Results

January 1 - December 31, 2010

- 15 findings of very low safety significance (Green)
- 1 Severity Level IV Violation
- All performance indicators were Green
- Human Performance issues continue to be a concern to the NRC



Perry Assessment Results

January 1 - December 31, 2010

Human Performance Substantive Cross-Cutting Issues

The NRC continues to have a concern with the licensee's scope of efforts and progress in addressing human performance issues.

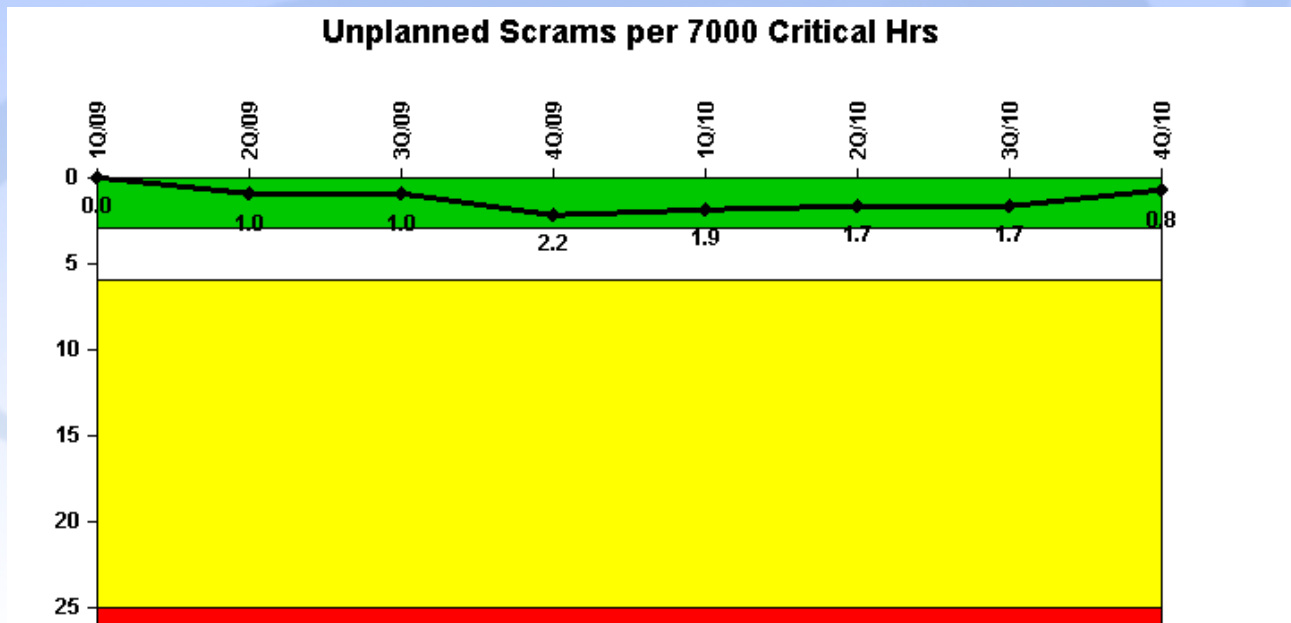
- Work Planning
- Documentation
- Work Oversight
- Error Prevention



Safety Significant Findings or PIs

January 1 - December 31, 2010

- No greater-than-green inspection findings or performance deficiencies were identified during the assessment period





Perry Assessment Results

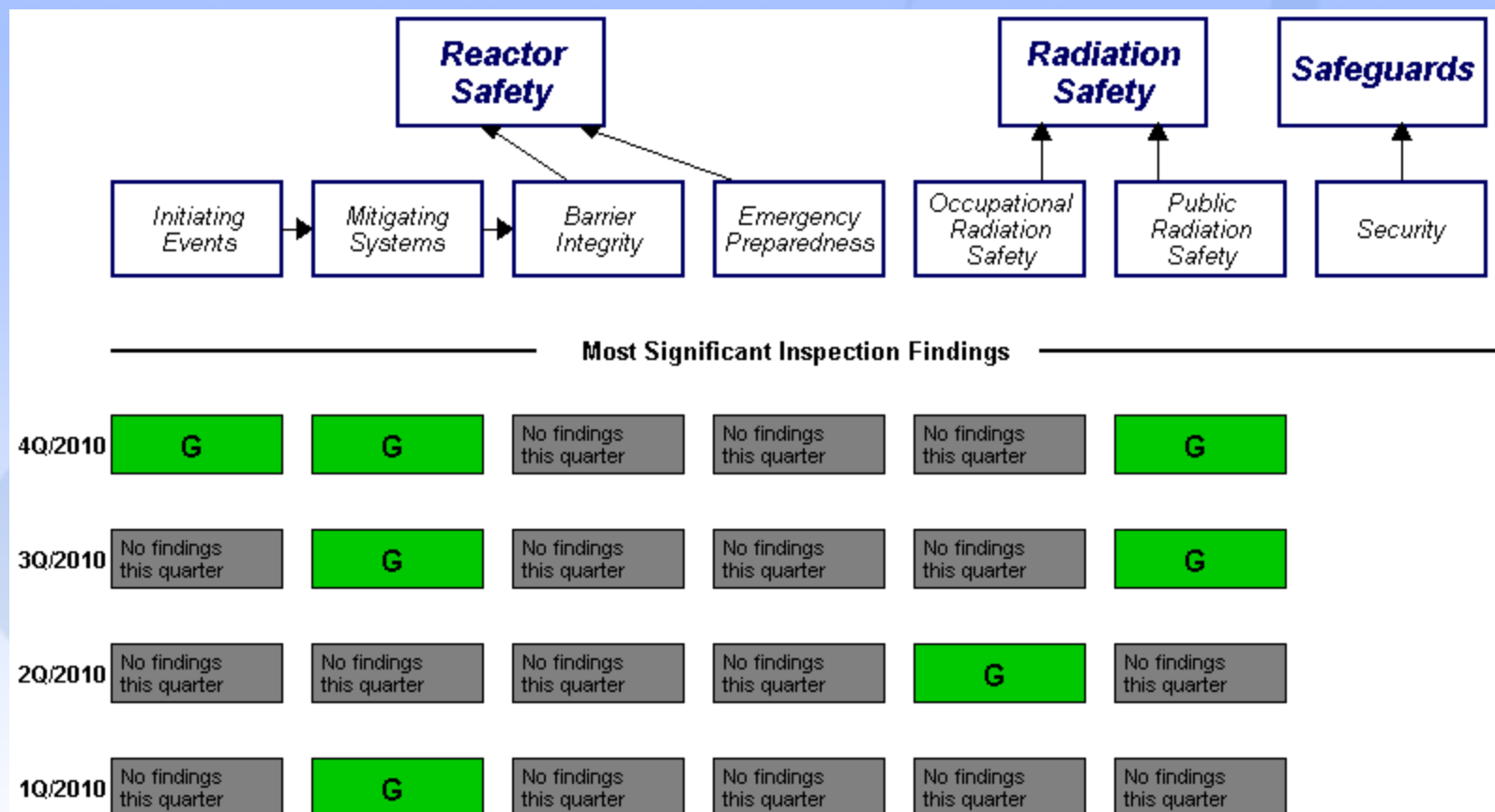
January 1 - December 31, 2010

Action Matrix				
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Unit 1	Licensee Response	Licensee Response	Licensee Response	Licensee Response

Substantive Cross-Cutting Issues				
	2009 Mid-Cycle	2009 End-of-Cycle	2010 Mid-Cycle	2010 End-of-Cycle
Human Performance	<ul style="list-style-type: none"> • Work Planning • Documentation • Work Oversight • Error Prevention 	<ul style="list-style-type: none"> • Work Planning • Work Oversight • Error Prevention 	<ul style="list-style-type: none"> • Work Planning 	<ul style="list-style-type: none"> • Work Planning • Documentation
Problem Identification and Resolution	<ul style="list-style-type: none"> • Evaluation of Problems 	<ul style="list-style-type: none"> • Evaluation of Problems 	None	None
Safety Conscious Work Environment	None	None	None	None



Perry Assessment Results





Perry Inspection Activities

January 1 - December 31, 2010

- 2233 hours of inspection and related activities *
- 2 resident inspectors on site – residents make four quarterly inspection reports per year and walk through the plant every day
- 4 major team inspections
 - Modifications / 50.59 Inspection
 - Material Control and Accounting (MC&A) Triennial Inspection
 - Emergency Preparedness Exercise Inspection
 - Biennial Problem, Identification, and Resolution (PI&R) Inspection

*Includes 385 hours of security related inspection activities



NRC Inspection Findings

January 1 - December 31, 2010

- Failure to Correctly Assess Risk During Post-Maintenance Activities
- Failure to Comply with License Requirements when Reactor Vessel Level Instruments were Inoperable
- Deliberate Failure to Follow Portal Monitor Use Procedure
- Unacceptable Preconditioning of RHR Valve Prior to Testing



NRC Plans for 2011

January 1 - December 31, 2010

- NRC plans the following baseline inspection at Perry for 2011:
 - Component Design Basis Inspection (CDBI); 10/17/11-1/16/12
- Additionally the NRC plans the following inspections at Perry for 2011:
 - Follow up on Corrective Actions for Violations and Deviations (IP 92702); June 2011. (Rescheduled Nov/Dec)
 - NRC conducted an in-depth Problem Identification and Resolution inspection (71152) during June 2011 as a replacement for the 92702 inspection postponed above.



Perry

Annual Assessment Summary

January 1 - December 31, 2010

- FirstEnergy operated Perry Unit 1 safely and in a manner that preserved the public health and safety and protected the environment.
- All cornerstone objectives were met
- Human Performance Substantive Cross-Cutting Issue (SCCI) remains open with 2 areas of concern
 - Work Planning
 - Documentation/Procedures
- Perry was in the Licensee Response Column of the NRC's ROP Action Matrix for the last quarter of 2010.



Licensee Response and Remarks

Mark Bezilla

Site Vice President, Perry
FirstEnergy Nuclear Operating Company



Performance Summary

January 1 - December 31, 2010

- Operated in a manner that preserved public health and safety with all cornerstone objectives met
- Human Performance Significant Cross Cutting Issue:
 - Two themes: Work Planning and Documentation/Procedures
 - The Human Performance SCCI has been open since the 2007 annual assessment letter
 - The site has been asked to address this SCCI in writing, at a public meeting, and through performance of an independent Safety Culture assessment among other actions required
 - NRC will conduct an inspection, “Followup on Corrective Actions for Violations and Deviations” (IP 92702) in Nov/Dec 2011 to evaluate progress to resolve the issue



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:
 - Review NRC inspection reports
 - 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



NRC Representatives

- Mark Marshfield, Senior Resident Inspector
 - (440) 259-3610
- Thomas Hartman, Resident Inspector
 - (440) 259-3610
- Jamnes Cameron, Branch Chief, DRP
 - (630) 829-9833





Contacting the NRC

- Report an emergency
 - (301) 816-5100 (collect calls accepted)
- Report a safety concern
 - (800) 695-7403
 - Allegation@nrc.gov
- General information or questions
 - www.nrc.gov
 - Select “What We Do” for Public Affairs



Reference Sources

- Reactor Oversight Process
 - <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/>
- Public Electronic Reading Room
 - <http://www.nrc.gov/reading-rm.html>
- Public Document Room
 - 1-800-397-4209 (Toll Free)





What Do You Think of the ROP?

- The biennial ROP external survey is coming 3rd Quarter 2011, and we want to hear from you!
- Email ROPsurvey@nrc.gov to be notified when the ROP survey is available.
- For information on ROP stakeholder feedback, please visit our website at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/program-evaluations.html#section3>



End of Presentation

2010 Reactor Oversight Program

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