

U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Seabrook Station, Unit 1 Annual Assessment Meeting

2008 Reactor Oversight Process

Nuclear Regulatory Commission – Region I



Purpose of Today's Meeting

- Discuss FPL Energy's performance at Seabrook during 2008
- Provide FPL Energy the opportunity to respond to the NRC's annual assessment and discuss improvement initiatives
- Provide an opportunity for discussion between the public and the NRC on plant performance and the NRC's role in ensuring safe plant operations



NRC Representatives

- Arthur Burritt, Branch Chief
 - 610-337-5069
- William Raymond, Senior Resident Inspector
 - 603-474-3589
- Jonathan Johnson, Resident Inspector
 - 603-474-3589



Agenda

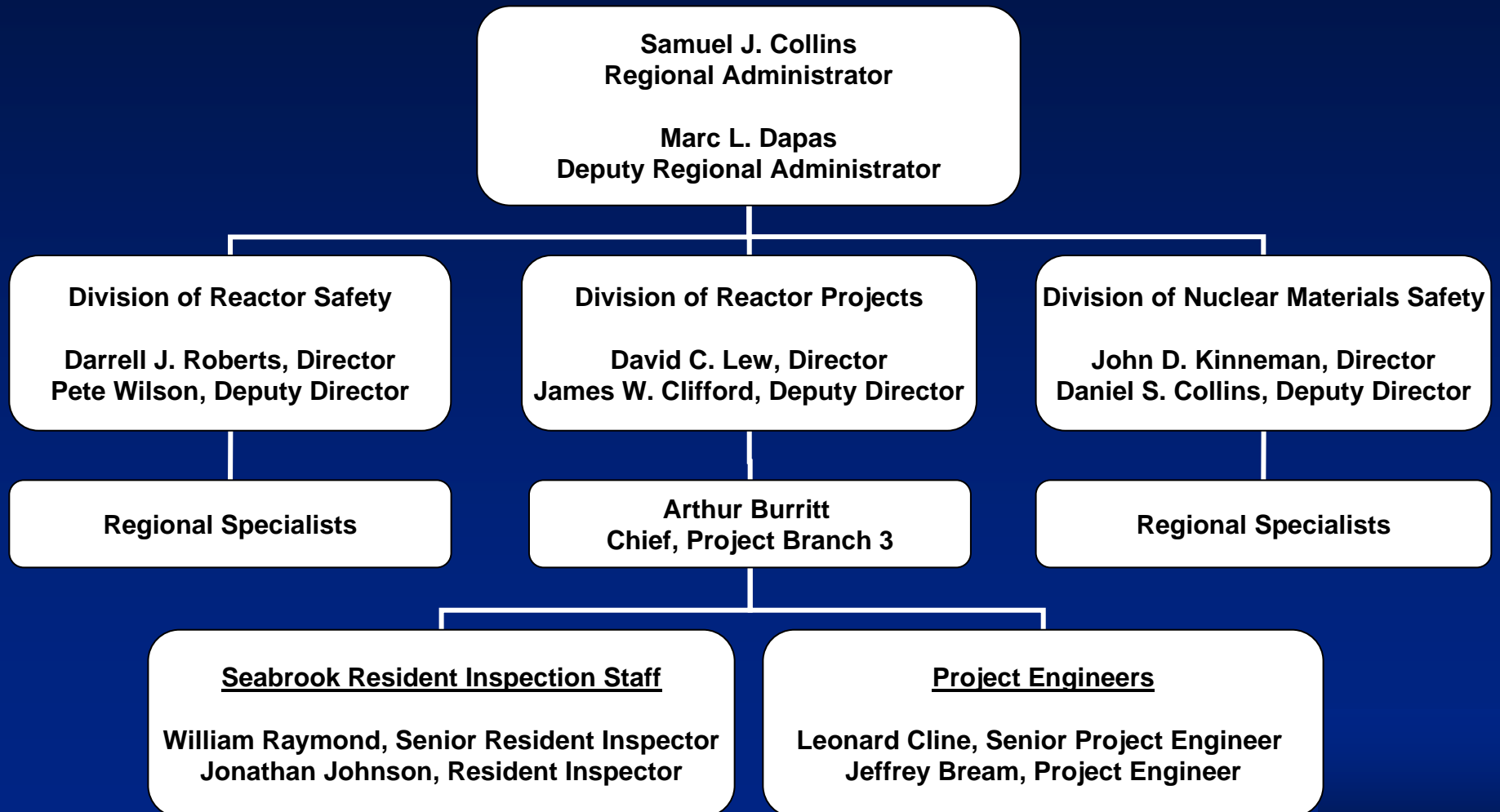
- NRC Overview and Performance Goals
- Reactor Oversight Process (ROP)
- National Summary of Plant Performance
- Plant Performance Assessment Results
- FPL Energy Response and Remarks
- NRC Closing Remarks
- Break
- NRC available to address public questions



What the NRC Regulates

- Nuclear reactors - commercial power, research, test and new reactor designs
- Nuclear security – physical protection for nuclear facilities and materials
- Nuclear materials - reactor fuel and radioactive materials for medical, industrial, and academic uses
- Nuclear waste – transportation, storage, disposal and facility decommissioning

Region I Organization





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



Regulatory Activities

- Rules and Regulations
- Licensing
- Inspection, Enforcement, and Operational Experience
- Research and Testing
- Incident Response

For Power Reactors

- Perform independent inspections at every commercial reactor site on a daily basis
- License personnel who operate commercial nuclear power plants
- Confirm adequate monitoring of radiological effluents

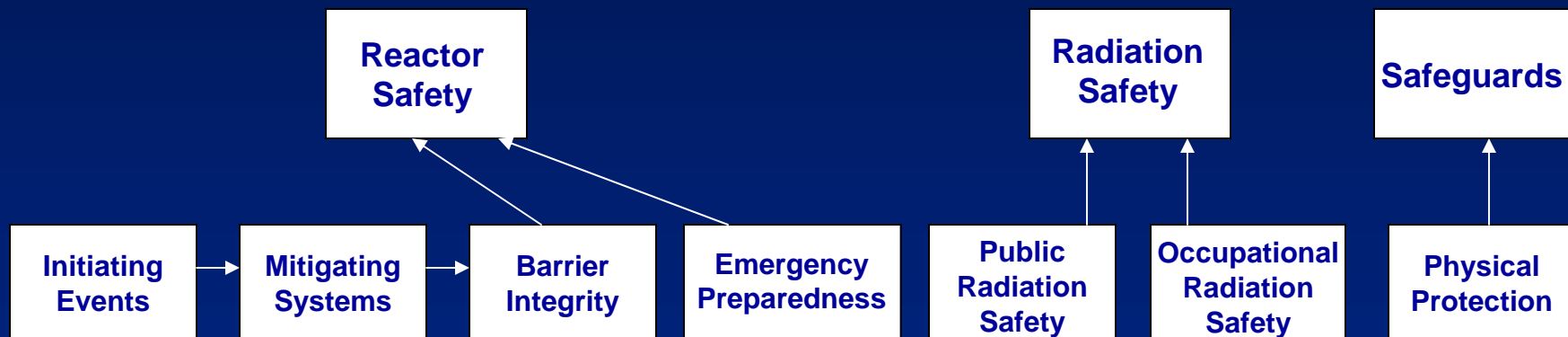


For Power Reactors

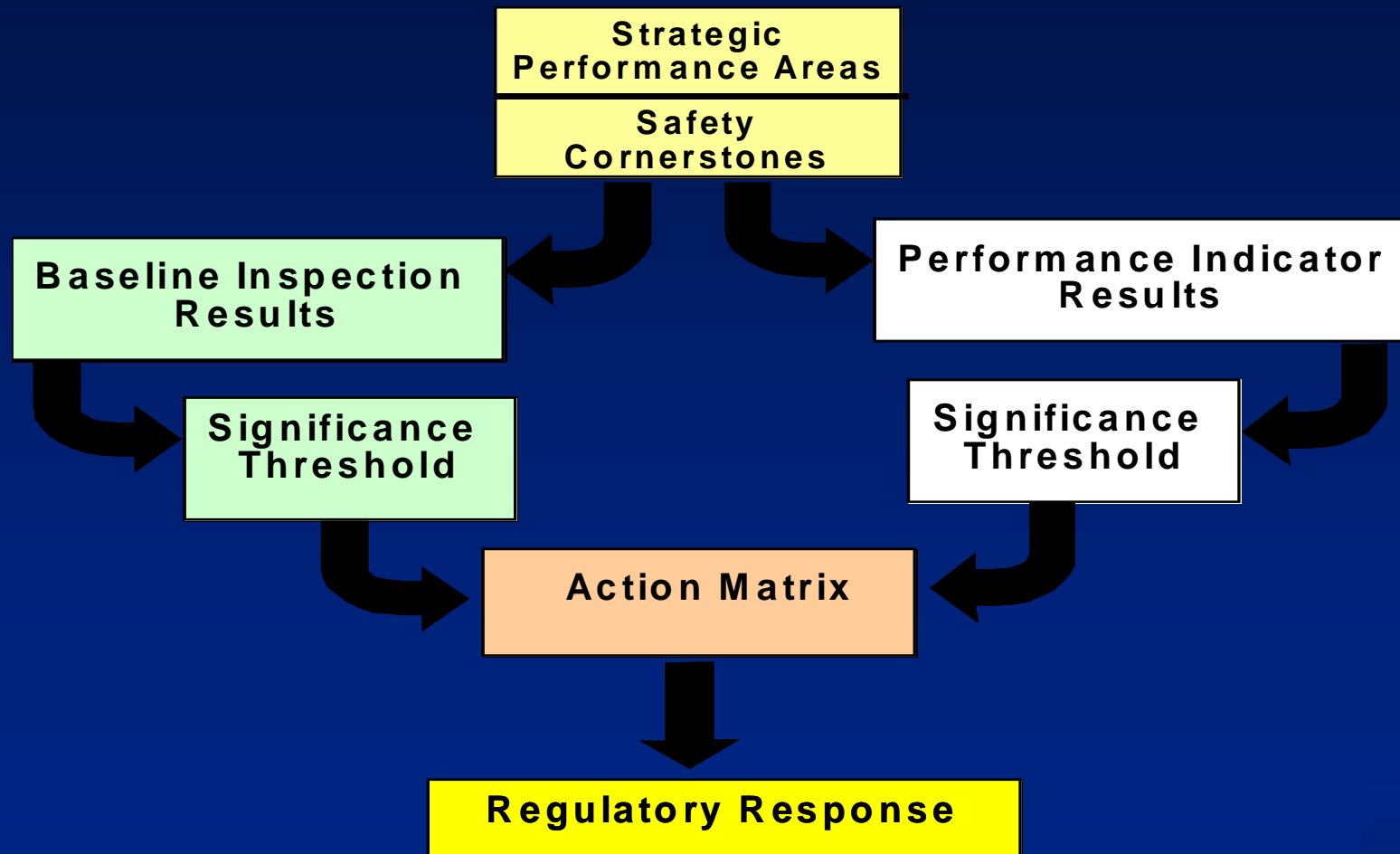
- Perform inspections and exercises to test security programs
- Coordinate with other federal agencies to assess potential threats
- Staff a 24 hour Emergency Operations Center
- Dispatch resident inspectors to the plant during events at all hours

Reactor Oversight Process

3 Strategic Areas & 7 Cornerstones



Reactor Oversight Process

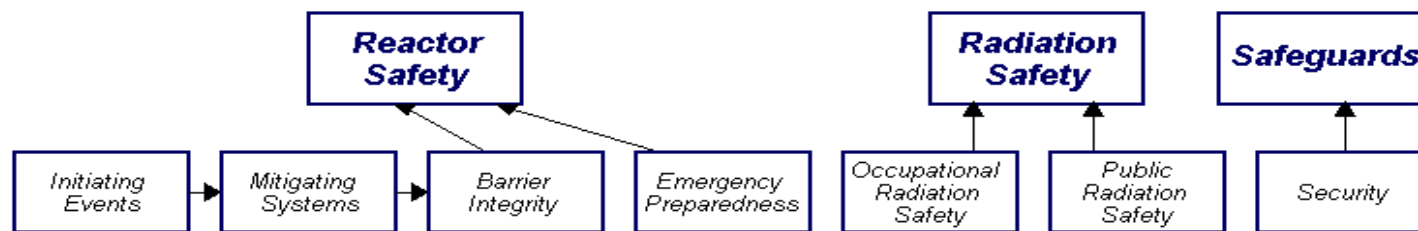




Typical Baseline Inspection Areas

- Equipment Alignment
- Fire Protection
- Operability Training
- Post-Maintenance Testing
- Refueling & Outage Activities
- Surveillance Testing
- Emergency Preparedness Assessment
- Corrective Action Program

NRC Performance Indicators



Performance Indicators

Unplanned Scrams (G)	Safety System Functional Failures (G)	Reactor Coolant System Activity (G)	Drill/Exercise Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/ODCM Radiological Effluent (G)
Unplanned Power Changes (G)	Emergency AC Power System (G)	Reactor Coolant System Leakage (G)	ERO Drill Participation (G)		
Unplanned Scrams with Complications (G)	High Pressure Injection System (G)		Alert and Notification System (G)		
	Heat Removal System (G)				
	Residual Heat Removal System (G)				
	Cooling Water Systems (G)				

Significance Threshold

Performance Indicators

- **Green** Baseline Inspection
- **White** Requires additional NRC oversight
- **Yellow** Requires more NRC oversight
- **Red** Requires the most 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



- Increasing Safety Significance
- Increasing NRC Inspection Efforts
- Increasing NRC/Licensee Management Involvement
- Increasing Regulatory Actions



National Summary of Plant Performance (at end of 2008)

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



National Summary of Plant Performance (at end of 2008)

Performance Indicator Results

➤ Green	1762
➤ White	6
➤ Yellow	0
➤ Red	0

Total Inspection Findings

➤ Green	776
➤ White	17
➤ Yellow	0
➤ Red	0



Seabrook Annual Assessment **for 2008**

- FPL Energy operated Seabrook in a manner that preserved public health and safety and protected the environment
- FPL Energy performance at Seabrook fully met all cornerstone objectives
- Seabrook was in the Licensee Response Column of the Action Matrix for all four quarters of 2008
- NRC plans to perform baseline inspections at Seabrook for the remainder of 2009



NRC Inspection Activities at Seabrook (for 2008)

- 6148 hours of inspection and related activities
- 2 resident inspectors on-site
- 14 regional specialist inspections
- 3 major team inspections:
 - Triennial Fire Protection
 - Problem Identification and Resolution
 - EP Exercise Evaluation



Seabrook PIs / Findings (January 1 – December 31, 2008)

- All **Green** Performance Indicators
- 3 **Green** findings
 - 1 Severity Level IV violation

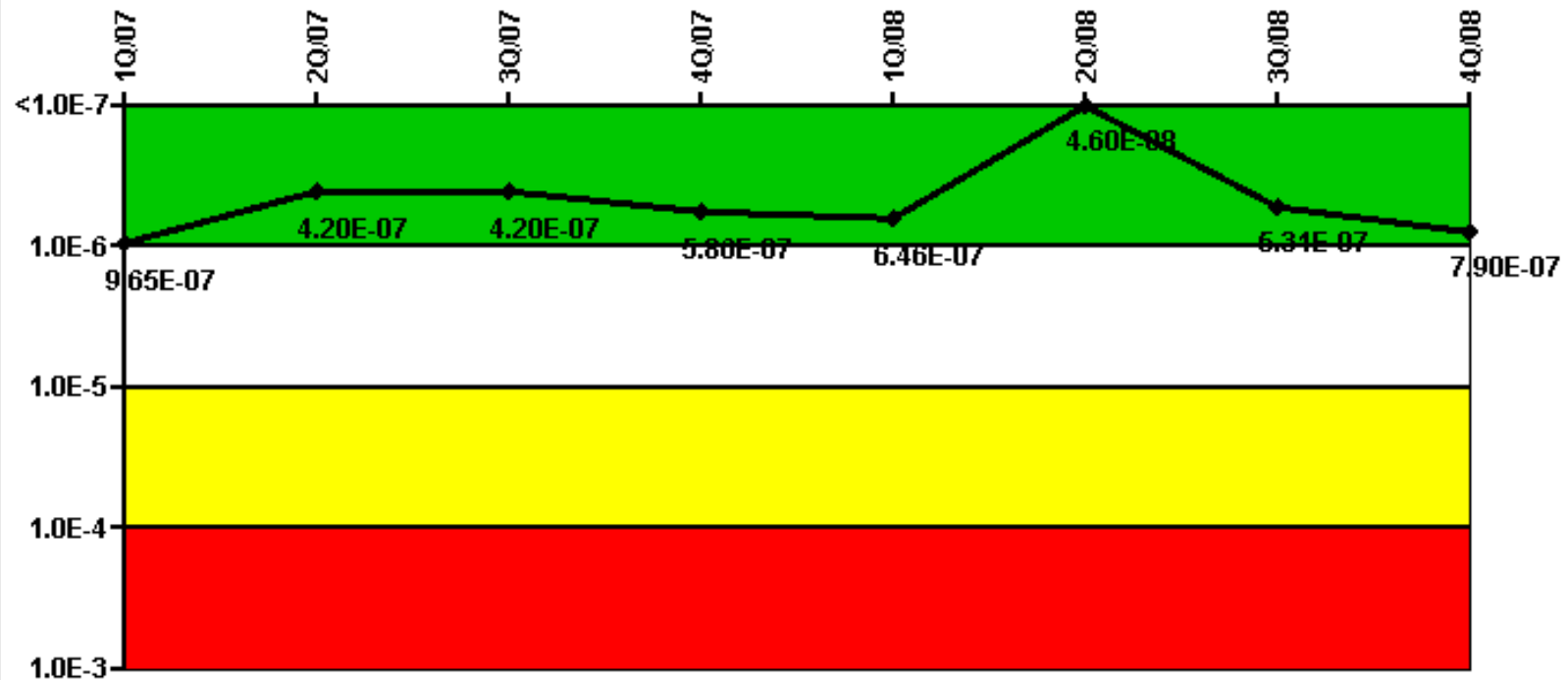


NRC Inspection Findings Seabrook

- **Green** – Seabrook staff did not follow tagging procedure requirements which caused a loss of configuration control that inadvertently drained 200 gallons from the RCS.
- **Green** – Seabrook staff did not control a high radiation area as a locked high radiation area as required by plant technical specifications.
- **SL IV** – Seabrook staff did not conduct an adequate dry run for welding the inner top cover of a spent fuel dry shielded canister.

NRC Performance Indicators

Mitigating Systems Performance Index, Emergency AC Power System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4



Seabrook Assessment Summary

- FPL Energy operated the plant safely
- Seabrook was in the Licensee Response Column of the Action Matrix for all of 2008



Licensee Response and Remarks

Mr. G. St. Pierre

Site Vice President – Seabrook

FPL Energy



Contacting the NRC

- Report a safety concern:
 - (800) 695-7403
 - Allegation@nrc.gov
- General information or questions:
 - www.nrc.gov
 - Public Affairs Officers:
 - Diane Screnci 610-337-5330
 - Neil Sheehan 610-337-5331

Reference Sources

- Reactor Oversight Process

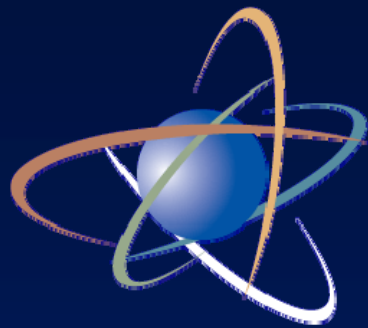
<http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>

- Public Electronic Reading Room

<http://www.nrc.gov/reading-rm.html>

- Public Document Room

1-800-397-4209 (Toll Free)



U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

End of the Presentation

Nuclear Regulatory Commission

Region I

King of Prussia, Pennsylvania

April 30, 2009