

U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

NRC Annual Performance Assessment of Seabrook

2007 Reactor Oversight Program



Purpose of Today's Meeting

- **Discuss Seabrook Plant Performance for CY 2007**
- **Provide FPL Energy the opportunity to respond to the NRC's Annual Performance Assessment and discuss new or existing programs to improve performance**
- **Provide the public an opportunity to discuss plant performance and the NRC's role in ensuring safe plant operations with the NRC staff**



Agenda

- Introduction
- NRC Organization and Performance Goals
- Reactor Oversight Process (ROP)
- National Summary of Plant Performance
- Seabrook's Plant Performance Assessment
- FPL Energy's Response and Remarks
- NRC Closing Remarks
- Break
- NRC available to address public questions

Region I Organization





NRC Representatives

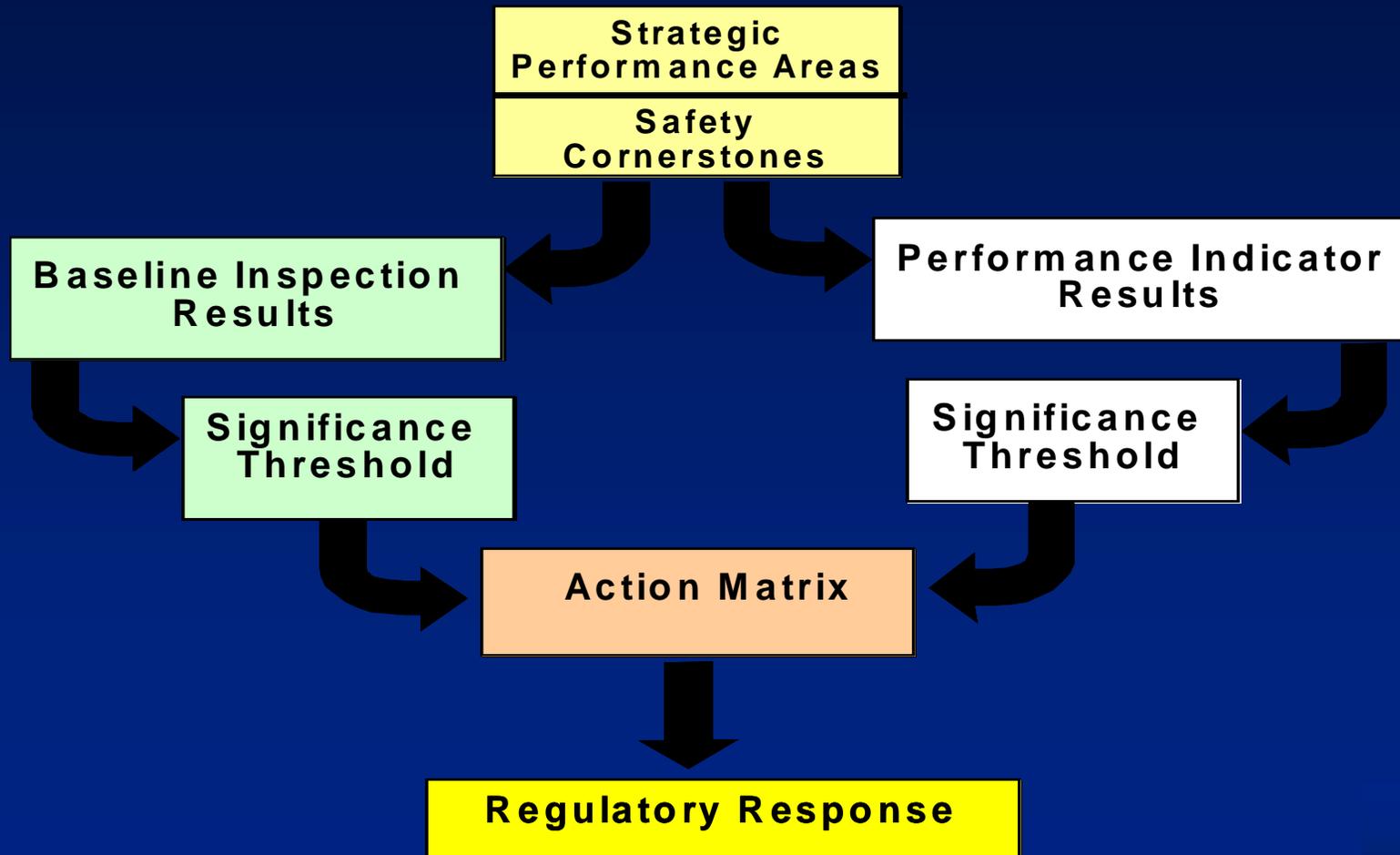
- **Arthur L. Burritt, Branch Chief
(610) 337-5069**
- **William Raymond, SRI
(603) 474-3589**
- **Peter Presby, RI (acting)
(603) 474-3589**
- **Ross Moore, (in training)**



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





Typical Baseline Inspection Areas

- Equipment Alignment
- Fire Protection
- Operator Response
- Emergency Preparedness
- Radiation Release Controls
- Worker Radiation Protection
- Corrective Action Program

Significance Threshold

Performance Indicators

- **Green** Baseline Inspection
- **White** May increase 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 (at end of 2007)

Licensee Response	87
Regulatory Response	8
Degraded Cornerstone	8
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0
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Total	104



National Summary (at end of 2007)

Performance Indicator Results

➤ Green	1954
➤ White	8
➤ Yellow	2
➤ Red	0

Total Inspection Findings

➤ Green	918
➤ White	9
➤ Yellow	2
➤ Red	0



NRC 2007 Annual Assessment for Seabrook

- **FPL Energy operated Seabrook in a manner that preserved public health and safety and protected the environment**
- **All cornerstone objectives were fully met**
- **Seabrook was in the Licensee Response column of the NRC's Action Matrix for all four quarters of 2007**
- **NRC plans baseline inspections at Seabrook for the remainder of CY 2008**



NRC Inspection Activities at Seabrook

- **6000+ hours of inspection related activities**
- **2329 hours of direct inspection activities**
- **2 resident inspectors on-site**
- **13 Regional Specialist inspections**



NRC Inspection Activities

- **Team Inspections**
 - **Component Design Basis team inspection**

- **Supplemental inspections**
 - **Emergency Diesel Generators**



Safety Significant Pls / Findings

- **All Performance Indicators in the Reactor and Radiation Safety Areas at Seabrook remained GREEN throughout 2007**
- **Inspectors documented six GREEN inspection findings in the Reactor and Radiation Safety Areas at Seabrook in 2007**



NRC Inspection Findings

- **Green - Enclosure building air handling fan power supply cable connections not torqued per procedures.**
- **Green – Inadequate testing of the alternate cooling water supply resulted in failure of alternate cooling water to centrifugal charging pump lube oil coolers**
- **Green – Inadequate corrective actions resulted in multiple voltage regulator failures of the B EDG**



NRC 2007 Assessment Summary for Seabrook

- **FPL Energy operated Seabrook in a manner that preserved public health and safety and protected the environment.**
- **Seabrook was in the Licensee Response Column of the Action Matrix for all of 2007.**
- **NRC plans baseline inspections for the remainder of 2008.**



Licensee Response and Remarks

Mr. G. St. Pierre

Site Vice President – Seabrook

FPL Energy



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 “Public Meetings & Involvement” or “Contact Us”



Reference Sources

➤ Reactor Oversight Process

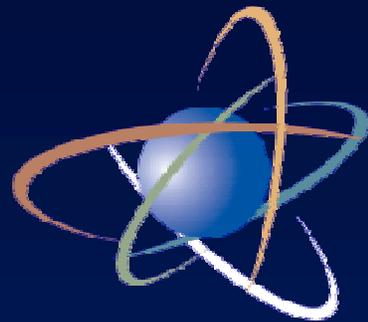
<http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>

➤ Public Electronic Reading Room

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

➤ Public Document Room

1-800-397-4209 (Toll Free)



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UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

End of the Presentation

Nuclear Regulatory Commission – Region I

King of Prussia, Pennsylvania

March 25, 2008



NRC Performance Indicators

Initiating Events PIs

- Unplanned Scrams
- Unplanned Scrams with Complications
- Unplanned Power Changes

Mitigating Systems PIs

- Emergency AC Power System
- High Pressure Injection System
- Residual Heat Removal System
- Cooling Water Support Systems
- Safety System Functional Failures

Barrier Integrity PIs

- Reactor Coolant System Specific Activity
- Reactor Coolant System Leakage

Emergency Planning PIs

- Drill / Exercise Performance
- Emergency Response Organization Participation
- Alert and Notification System

Radiation Protection PIs

- Occupational Exposure Control Effectiveness
- RETS / ODCM Radiological Effluent

Security PIs are not Publicly Available

Seabrook Performance Indicators

Unplanned Scrams (G)	Emergency AC Power System (G)	RCS Specific Activity (G)	Drill/Exercise Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/ODCM Radiological Effluent (G)	Security (Not Public)
Unplanned Scrams with Complications (G)	High Pressure Injection System (G)	RCS Leakage (G)	ERO Drill Participation (G)			
Unplanned Power Changes (G)	Residual Heat Removal System (G)		Alert and Notification System (G)			
	Heat Removal System (G)					
	Cooling Water Systems (G)					
	Safety System Functional Failures (G)					