

NRC Annual Assessment of Millstone

Reactor Oversight Program - 2002

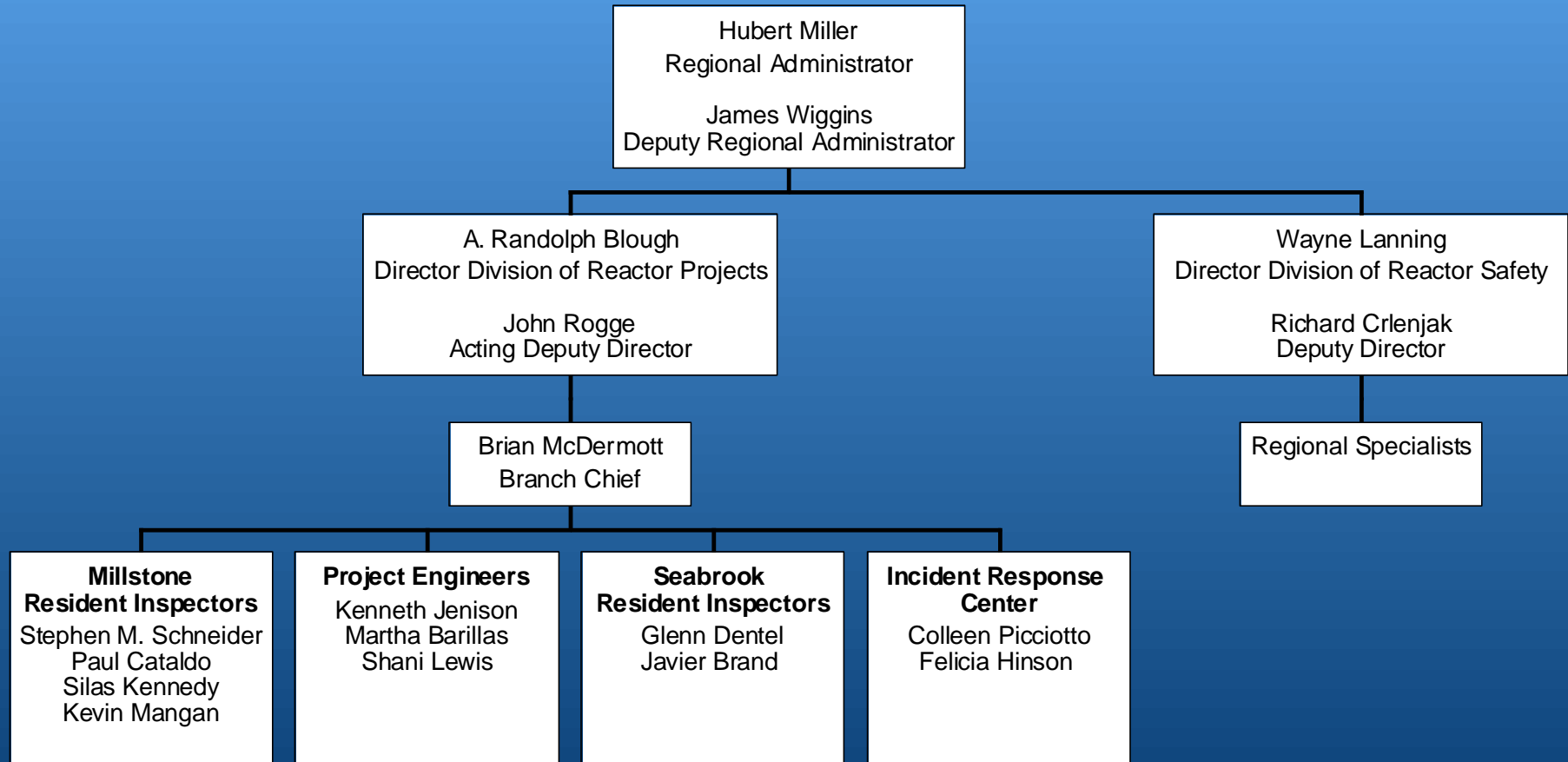


Nuclear Regulatory Commission - Region I
King of Prussia, PA

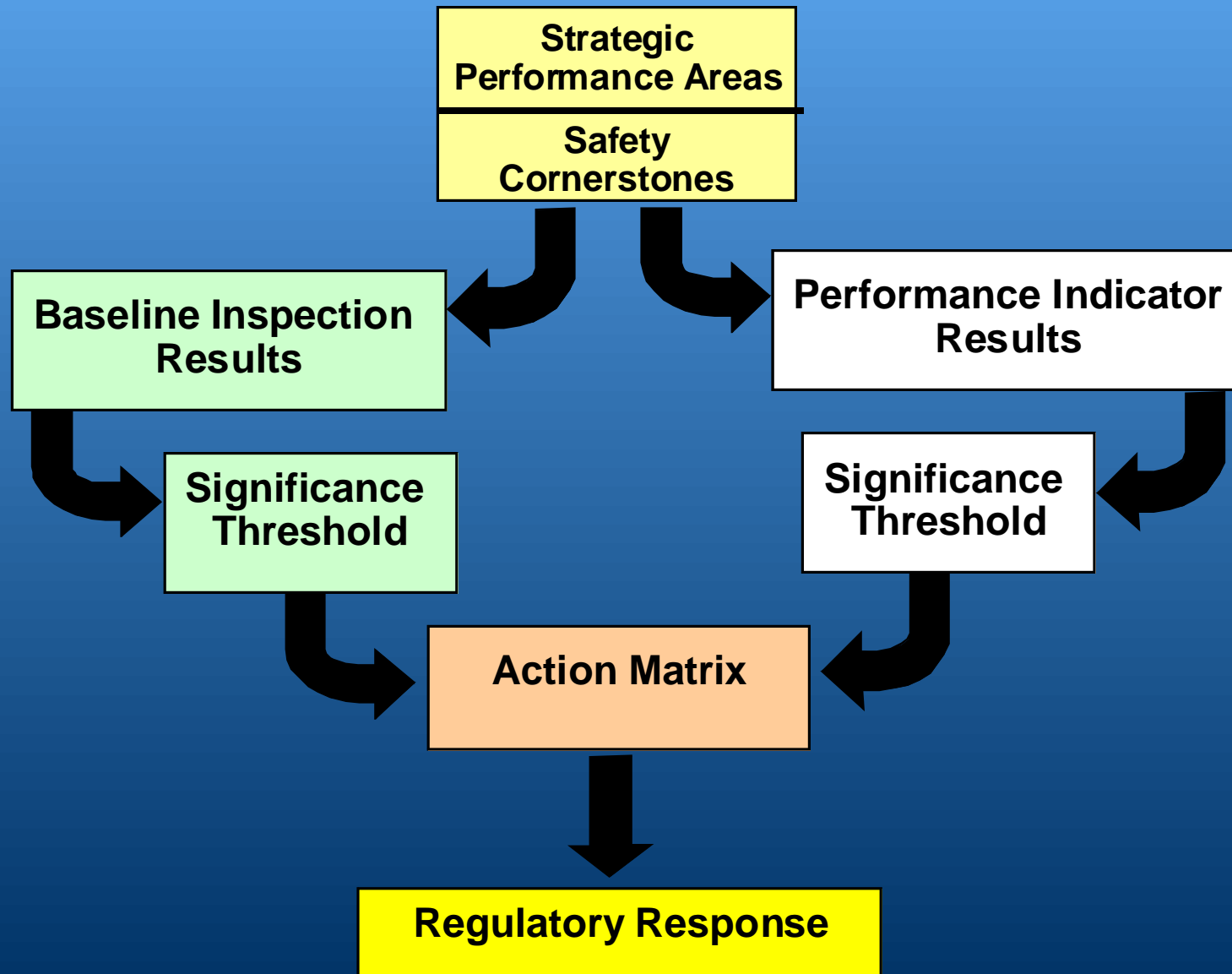
Agenda

- Introduction
- Review of Reactor Oversight Process
- National Results
- Millstone Unit 2 Results
- Millstone Unit 3 Results
- NRC Security Update
- Millstone Unit 2 Unusual Event

Region I Organization



Reactor Oversight Process



Significance Threshold

Performance Indicators

- Green:** Only Baseline Inspection
- White:** May increase NRC oversight
- Yellow:** Requires more NRC oversight
- Red:** Requires more NRC oversight

Inspection Findings

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

Examples of Baseline Inspections

- Equipment Alignment ~90 hrs/yr
- Triennial Fire Protection ~200 hrs every 3 yrs
- Operator Response ~125 hrs/yr
- Emergency Preparedness ~80 hrs/yr
- Rad Release Controls ~100 hrs every 2 yrs
- Worker Radiation Protection ~100 hrs/yr
- Corrective Action Program ~250 hrs every 2 yrs
- Corrective Action Case Reviews ~60 hrs/yr

Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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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 at End of 2002

Licensee Response	75
Regulatory Response	24
Degraded Cornerstone	2
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0
<hr/>	
Total Plants	102

*Davis Besse is in IMC 0350 process

National Summary

- Performance Indicator Results (at end of 2002)

- ▶ **Green** 1835
- ▶ **White** 5
- ▶ **Yellow** 0
- ▶ **Red** 0

- Total Inspection Findings (2002)

- ▶ **Green** 783
- ▶ **White** 30
- ▶ **Yellow** 1
- ▶ **Red** 2

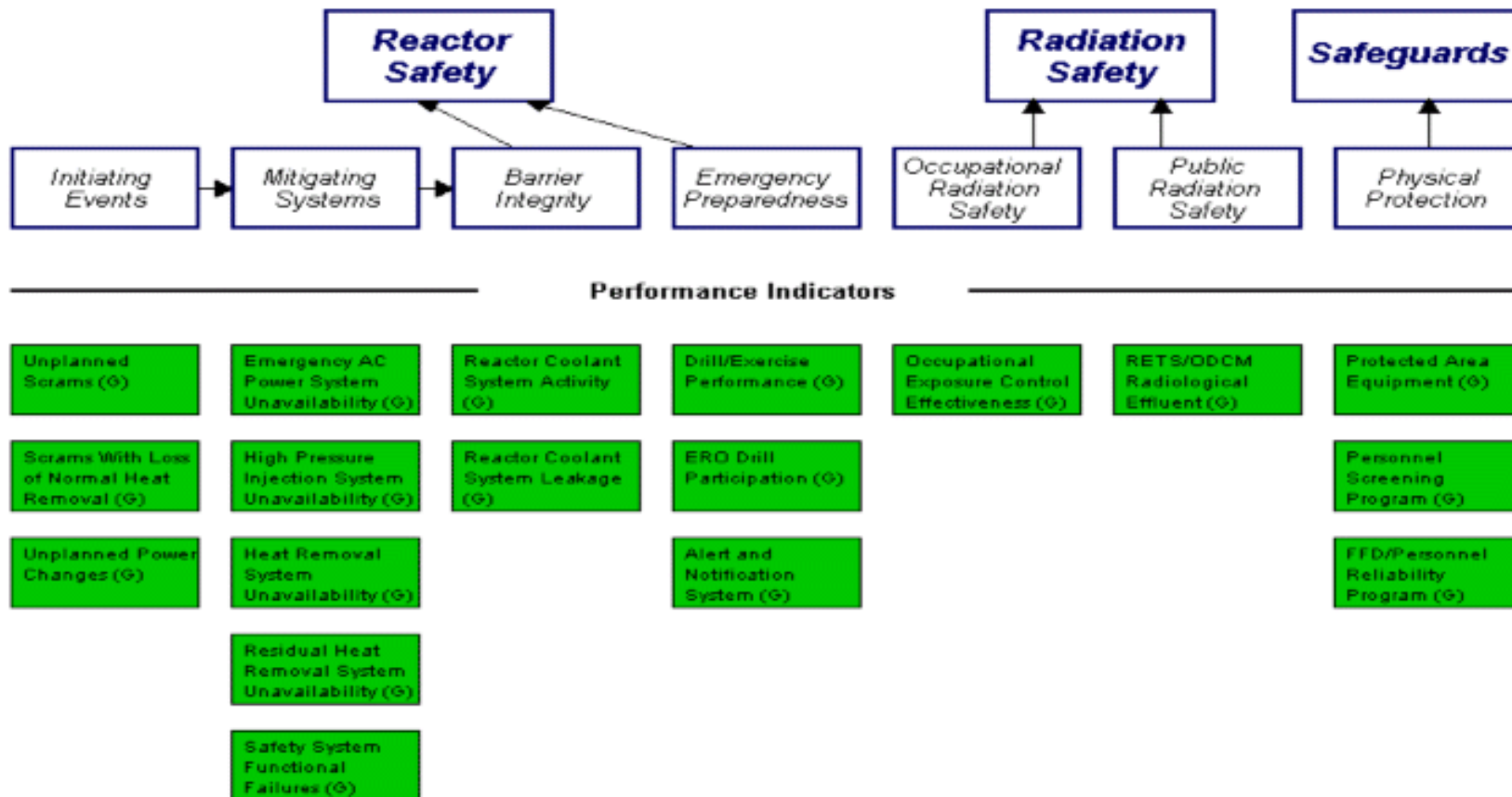
Millstone Assessment Results

January 1 - December 31, 2002

- Operated safely
- Met all cornerstone objectives
- “Licensee Response Column” on Action Matrix
- NRC will conduct baseline inspections in 2003

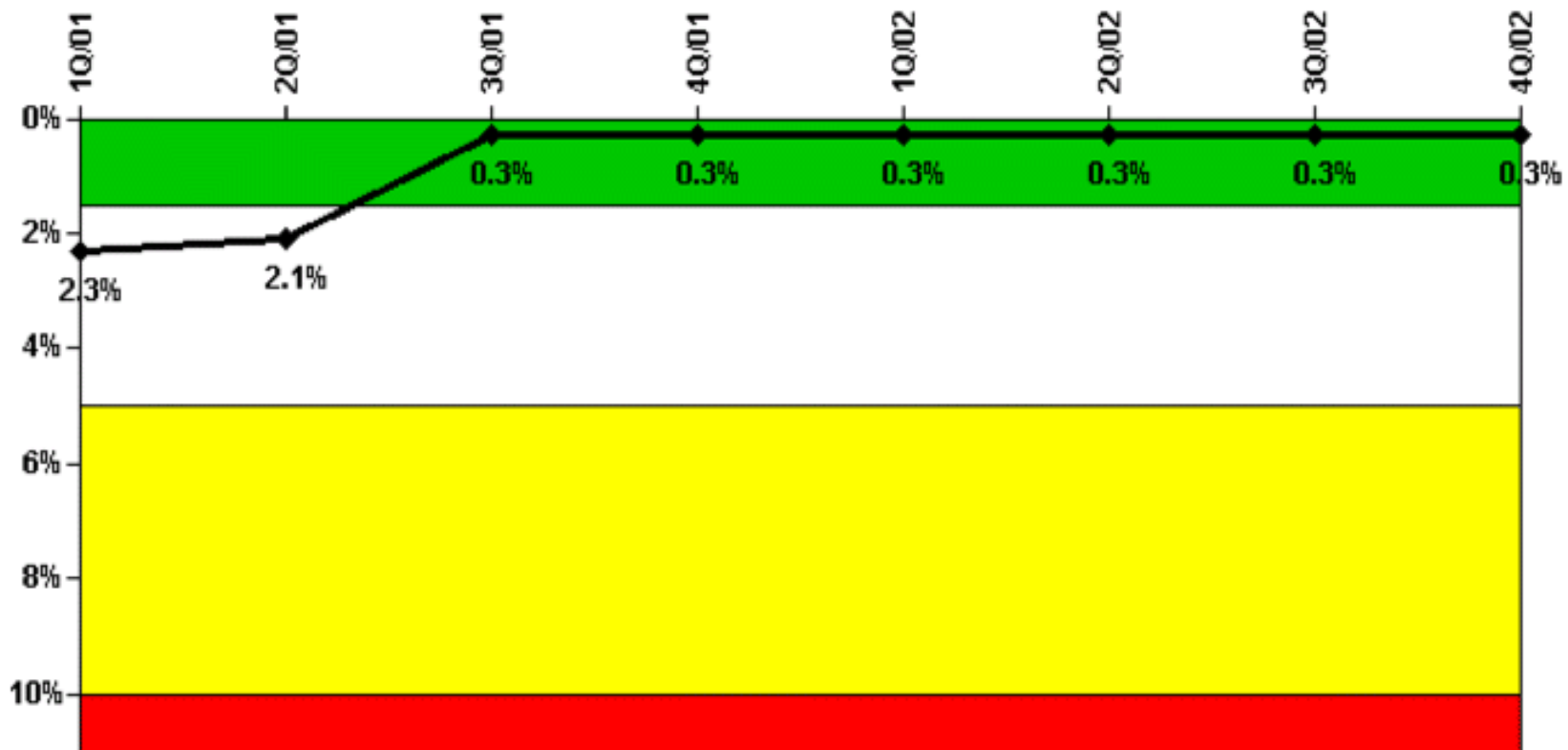
Millstone Unit 2 - Performance Indicators

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/MILL2/mill2_chart.html



Millstone Unit 2 Performance Indicator

Safety System Unavailability, High Pressure Injection System (HPSI)



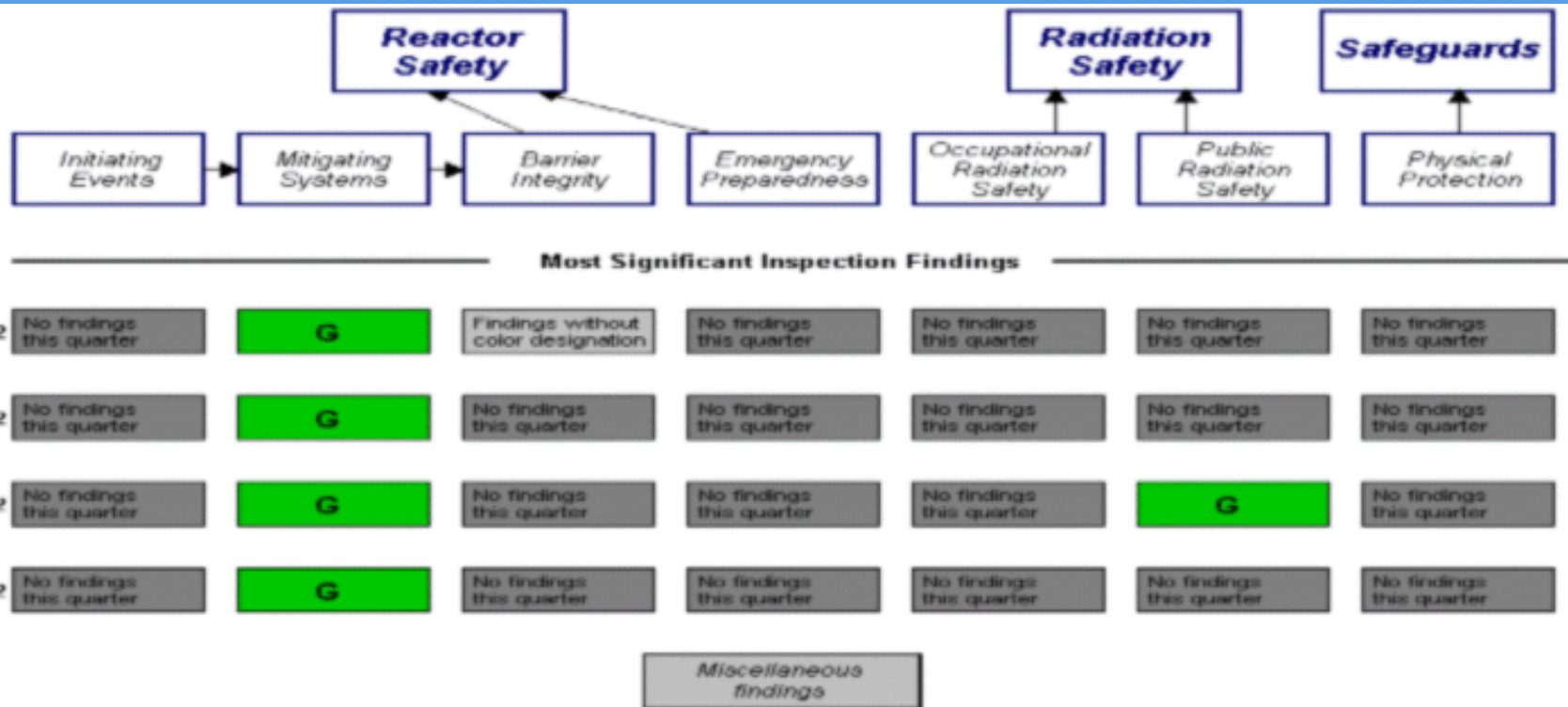
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Millstone Unit 2 Inspection Activities

January 1 - December 31, 2002

- 6000 hours of inspection related activities
- 4 resident inspectors at Millstone Station
- 12 regional inspector visits
- 4 team inspections
 - ▶ Triennial Fire Protection
 - ▶ Emergency Preparedness Exercise
 - ▶ Problem Identification and Resolution
 - ▶ Safety System Design Inspection

Millstone Unit 2 - Inspection Results



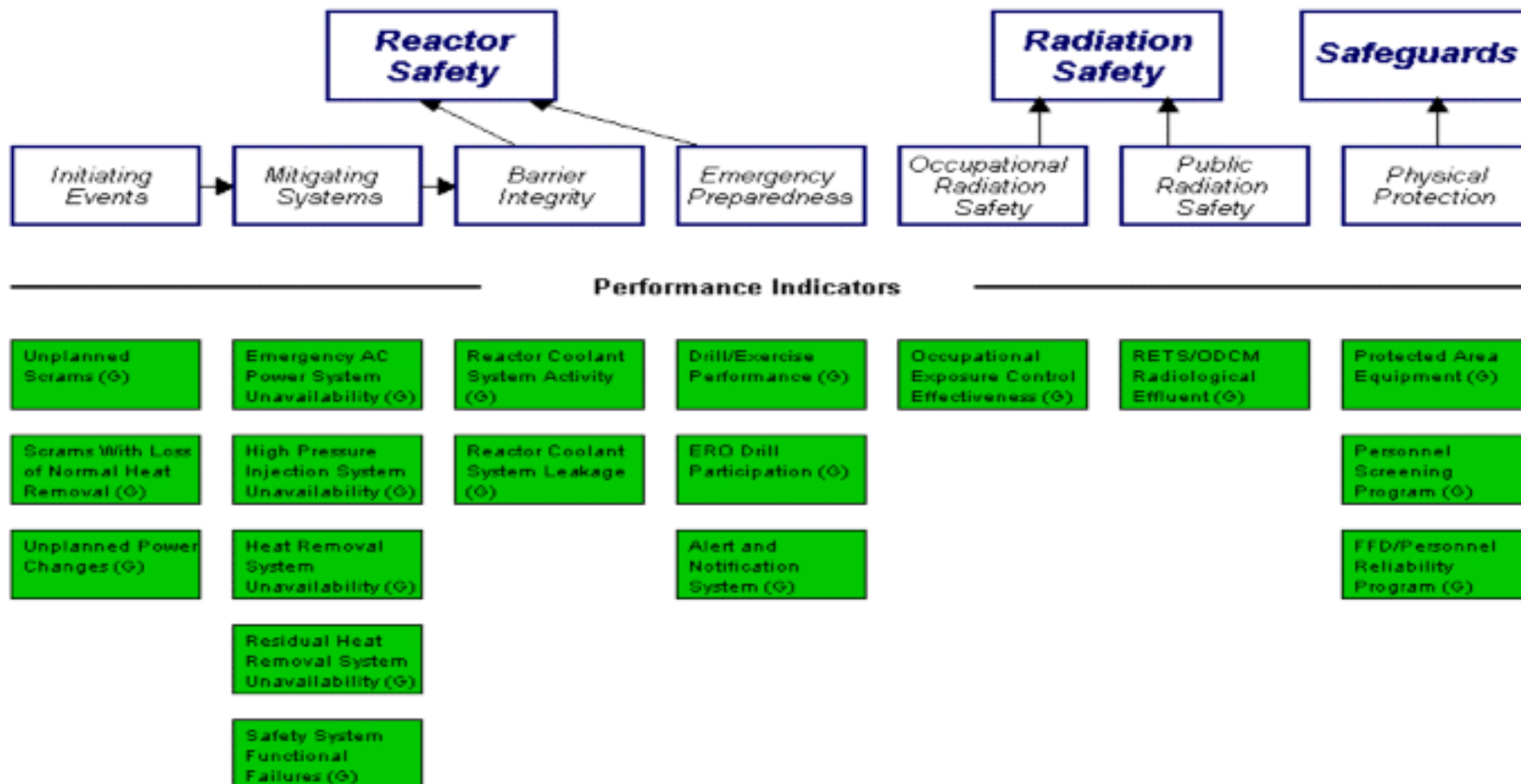
Millstone Unit 2 Inspection Findings

January 1 - December 31, 2002

- 8 findings of very low safety significance (Green)
- Problem Identification and Resolution issues
 - 3 findings related to Corrective Action
 - 2 findings related to Problem Identification

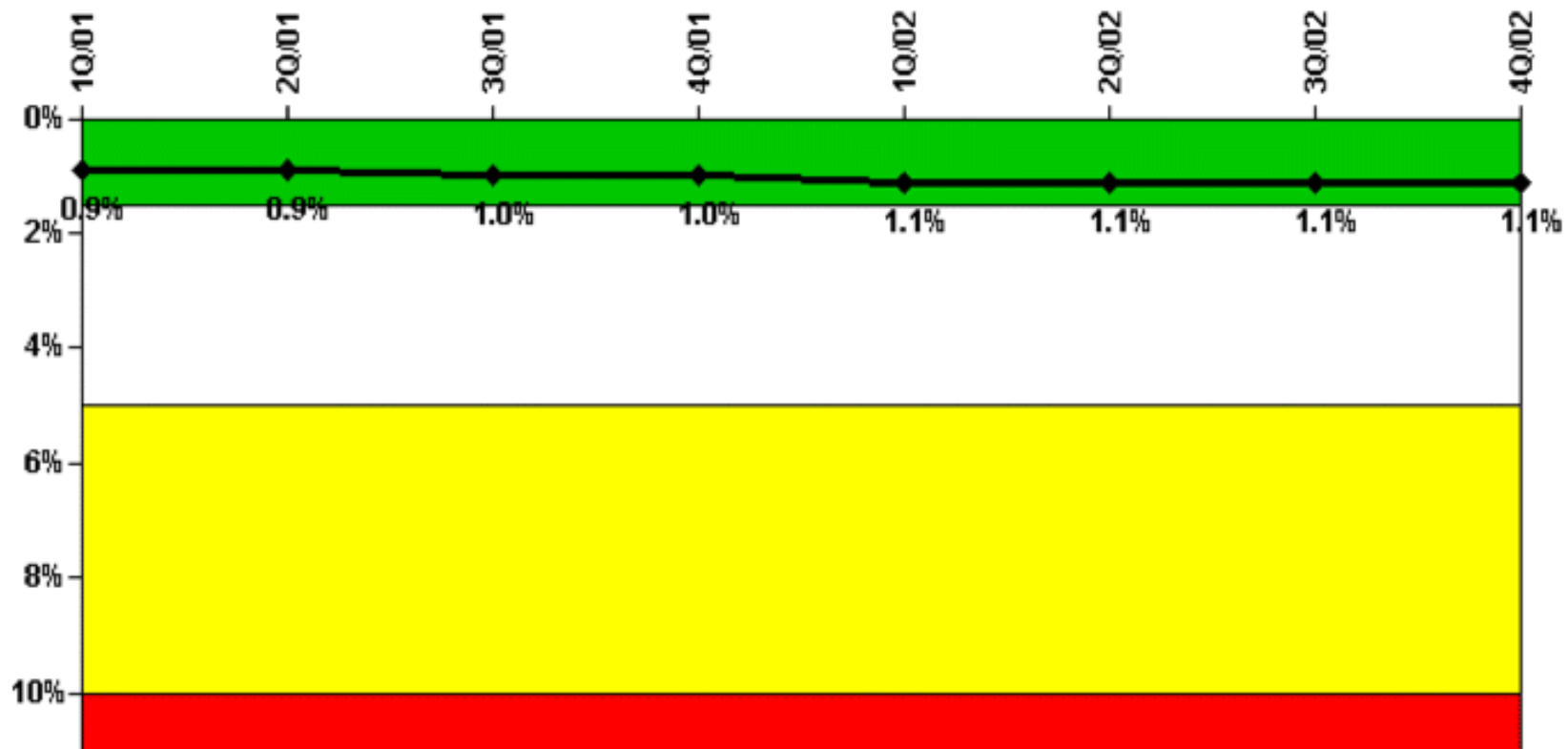
Millstone Unit 3-Performance Indicators

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/MILL3/mill3_chart.html



Millstone Unit 3 Performance Indicator

Safety System Unavailability, High Pressure Injection System (HPSI)



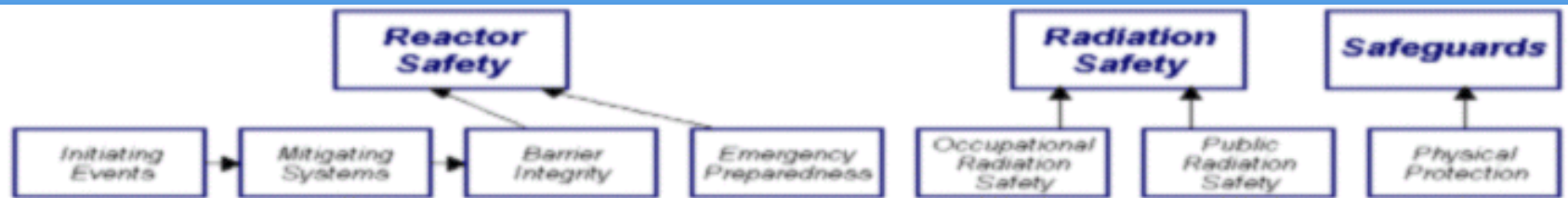
Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

Millstone Unit 3 Inspection Activities

January 1 - December 31, 2002

- 4000 hours of inspection related activities
- 4 resident inspectors at Millstone station
- 11 regional inspector visits
- 2 region based team inspections
 - ▶ Problem Identification and Resolution
 - ▶ Emergency Preparedness Exercise

Millstone Unit 3 - Inspection Results



Most Significant Inspection Findings

	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
4Q/2002	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/2002	No findings this quarter	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
2Q/2002	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2002	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
	Miscellaneous findings						

Millstone Unit 3 Inspection Findings

January 1 - December 31, 2002

- 4 findings of very low safety significance (**Green**)
 - ▶ 3 findings in the Mitigating Systems Cornerstone
 - ▶ 1 finding in the Barrier Integrity cornerstone

NRC Security Program Update

- NRC has issued Orders (February 2002):
 - ▶ Increased Patrols
 - ▶ Augmented Security Capabilities
 - ▶ Added Barriers and Posts
 - ▶ Enhanced Personnel Screening for Access
 - ▶ Enhanced Security Awareness
- Office of Nuclear Security and Incident Response Formed (April 2002)
- Threat Advisory and Protective Measure System (August 2002):
 - ▶ NRC established five level threat advisory and protective measure system based on Homeland Security Advisory System

NRC Security Program Update (continued)

- Access Authorization Order (January 7, 2003)
- Force-on-Force Exercises (February 2003)
- Training Order (TBD)
- Fatigue Order (TBD)
- Design Basis Threat (TBD)

Millstone Unit 2 Unusual Event

March 7, 2003 Reactor Trip

- Automatic reactor shutdown
 - ▶ Secondary plant equipment problems
 - ▶ Normal charging system problems
- NRC notified of “Unusual Event”
 - ▶ Resident Inspectors responded to site
 - ▶ Region I Incident Response Center Staffed
- Time to cooldown extended due to equipment problems
 - ▶ Second “Unusual Event” notification criteria met
- Special Inspection Team dispatched
 - ▶ Evaluating licensee’s event response and recovery activities
 - ▶ Performing independent assessment of event

NRC Representatives

- A. Randolph Blough, Director, Division of Reactor Projects
 - (610) 337-5230
- Victor Nerses, Project Manager, NRR, Millstone Unit 3
 - (301) 415-1484
- NRC Resident Inspectors (860) 447-3170
 - ▶ Stephen M. Schneider, Senior Resident Inspector
 - ▶ Paul Cataldo, Resident Inspector
 - ▶ Silas Kennedy, Resident Inspector
 - ▶ Kevin Mangan, Resident Inspector

Reference Sources

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

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