

Annual Assessment Meeting Calvert Cliffs

Reactor Oversight Program - Cycle 3

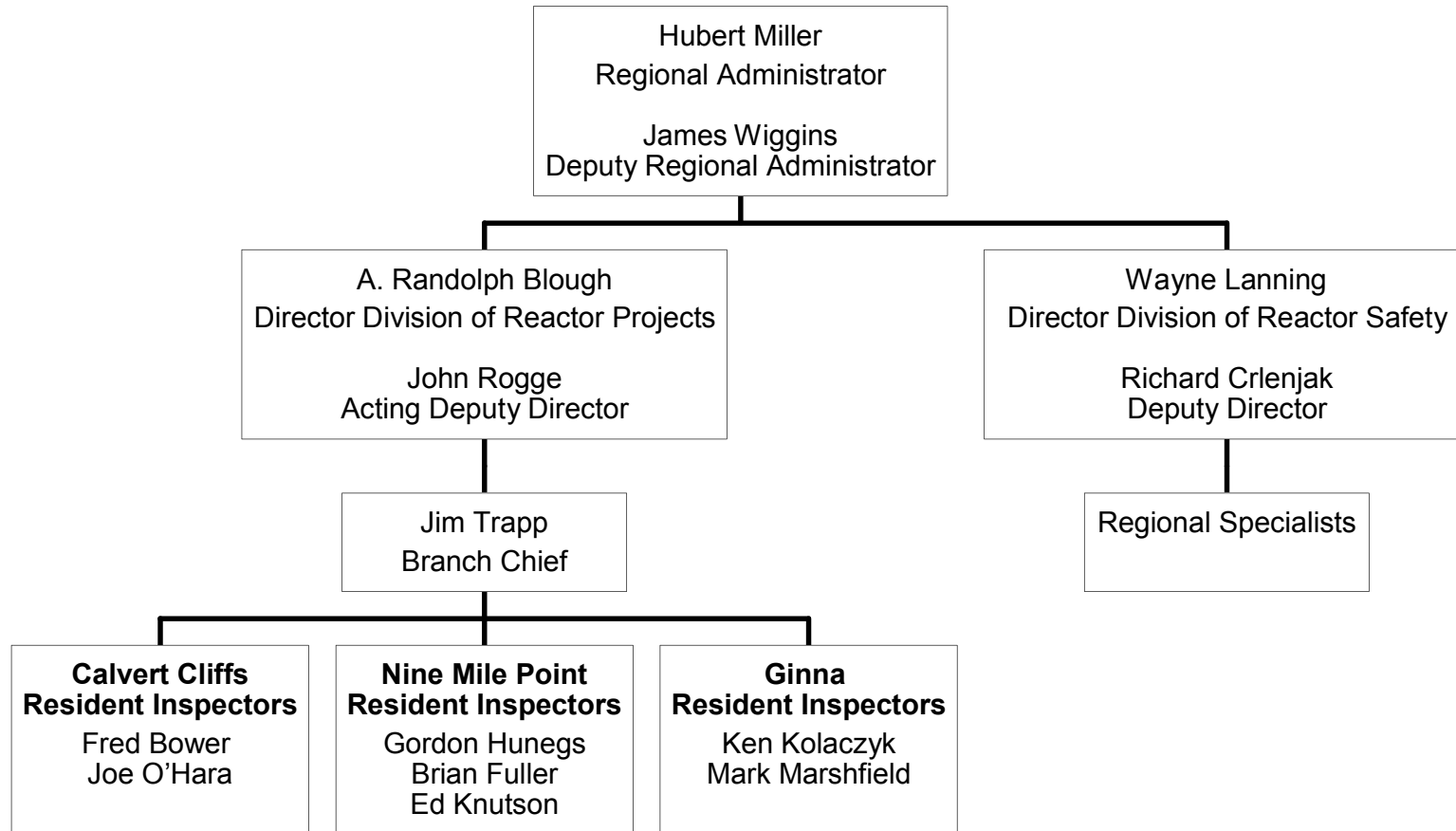


Nuclear Regulatory Commission - Region I
King of Prussia, PA

Agenda

- Introduction
- Review of Reactor Oversight Process
- National Summary of Plant Performance
- Discussion of Plant Performance Results
- General Topic: Security Update
- Licensee Response and Remarks
- NRC Closing Remarks
- Meeting with the Licensee adjourned
- NRC available to address questions from the public

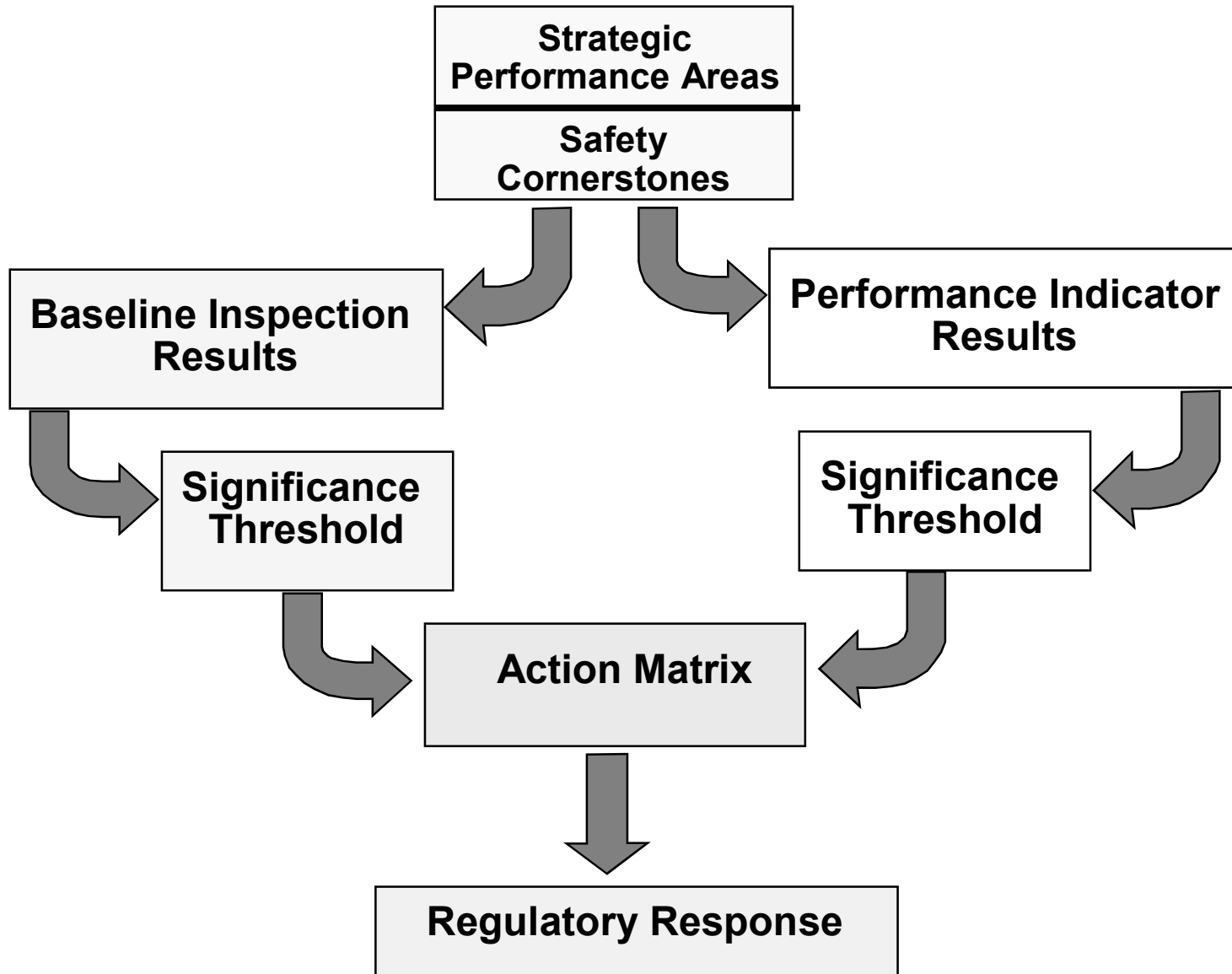
Region I Organization



NRC Representatives

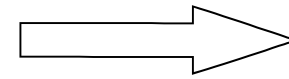
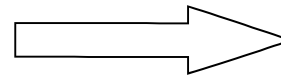
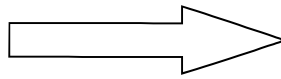
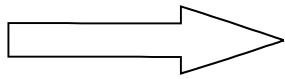
- Jim Wiggins, Deputy Region Administrator, Region I
 - ▶ (610) 337-5340
- Jim Trapp, Branch Chief
 - ▶ (610) 337-5186
- Fred Bower, Acting Senior Resident Inspector
 - ▶ (410) 586-2626
- Joe O'Hara, Resident Inspector
 - ▶ (410) 586-2626

Reactor Oversight Process



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

Significance Threshold

Inspection Findings/Perf. Indicator

Green: Very Low safety issue
Baseline Inspection

White: Low to moderate safety issue
Supplemental Inspection (95001)

Yellow: Substantial safety issue
Supplemental Inspection (95002)

Red: High safety issue
Supplemental Inspection (95003)

Examples of Baseline Inspections

- Performance Indicator Verification
- Resident Baseline Inspections
 - ▶ Fire Protection
 - ▶ Maintenance and Surveillance
 - ▶ Operability Evaluation
- Region Led Baseline Inspections
 - ▶ Team Inspections
 - Safety System Design Inspection (SSDI)
 - Problem Identification and Resolution (PI&R)
 - Emergency Planning
 - ▶ Operator Training
 - ▶ Security
 - ▶ Radiological Controls

National Summary of Plant Performance

Licensee Response 56

Regulatory Response 37

Degraded Cornerstone 6

Multiple/Repetitive Degraded Cornerstone 3

Unacceptable 0

Total Plants 102

* Davis-Besse is in IMC 0350 process

National Summary

- Performance Indicator Results (at end of ROP Cycle 3)
 - ▶ **Green** 1835
 - ▶ **White** 5
 - ▶ **Yellow** 0
 - ▶ **Red** 0

- Total Inspection Findings (ROP Cycle 3)
 - ▶ **Green** 783
 - ▶ **White** 30
 - ▶ **Yellow** 1
 - ▶ **Red** 2

Calvert Cliffs Unit 1 Assessment Results

(Jan 1 - Dec 31, 2002)

- Operated safely throughout the Assessment Period
- Regulatory Response column of the Action Matrix for the last two quarters of 2002 (cornerstone objectives met with minimal reduction in safety margin)
- Degraded Cornerstone column of the Action Matrix for first two quarters of 2002 (cornerstone objectives met with moderate degradation in safety performance)
- Problem Identification and Resolution Substantive Crosscutting Issue Closed
- NRC will conduct baseline inspections during the next cycle

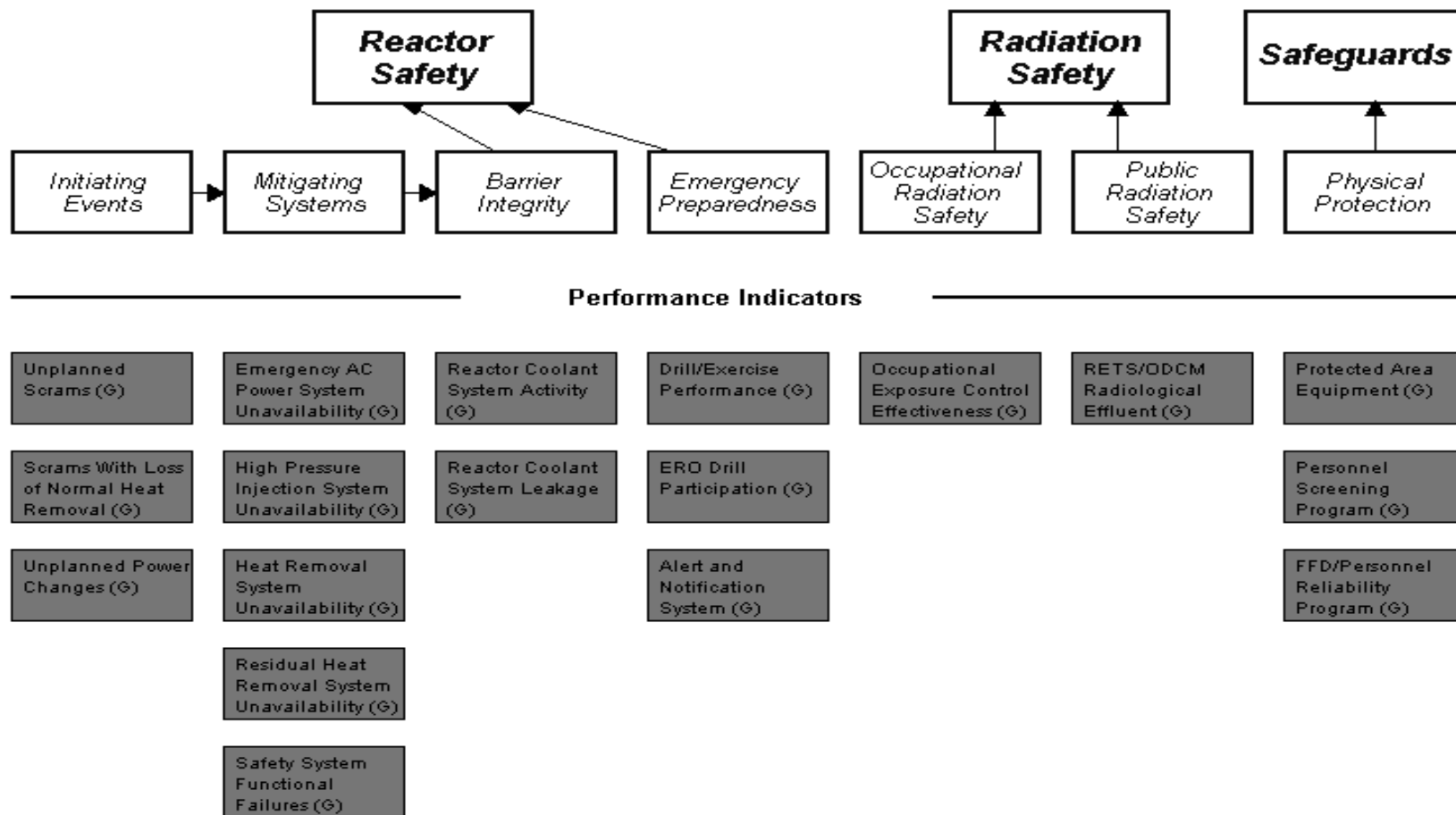
Calvert Cliffs Unit 2 Assessment Results

(Jan 1 - Dec 31, 2002)

- Operated safely throughout the Assessment Period
- Regulatory Response column of the Action Matrix for the last three quarters of 2002 (cornerstone objectives met with minimal reduction in safety margin)
- Licensee Response column of the Action Matrix for first quarter of 2002 (cornerstone objectives fully met)
- NRC will conduct baseline inspections during the next cycle

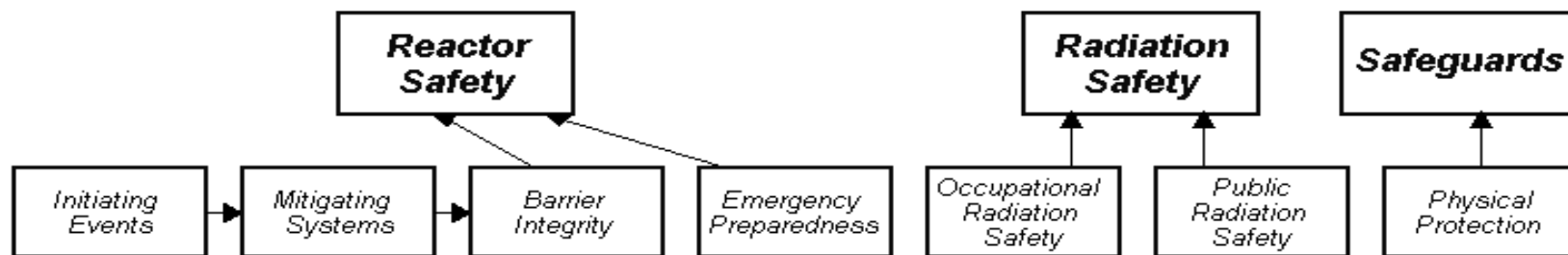
Unit 1 - 4Q Performance Indicators

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Unit 2 - 4Q Performance Indicators

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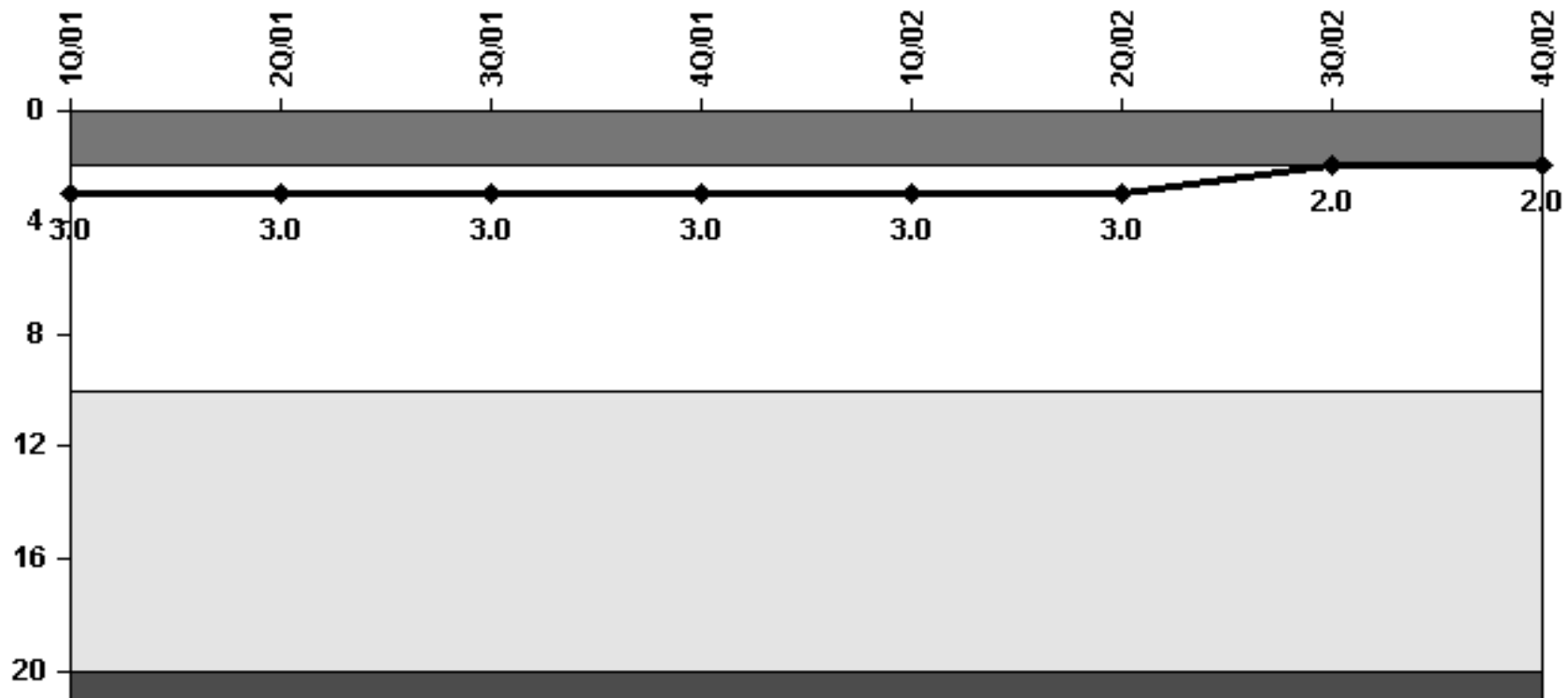
Performance Indicators

Unplanned Scrams (G)	Emergency AC Power System Unavailability (G)	Reactor Coolant System Activity (G)	Drill/Exercise Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/ODCM Radiological Effluent (G)	Protected Area Equipment (G)
Scrams With Loss of Normal Heat Removal (G)	High Pressure Injection System Unavailability (G)	Reactor Coolant System Leakage (G)	ERO Drill Participation (G)			Personnel Screening Program (G)
Unplanned Power Changes (G)	Heat Removal System Unavailability (G)		Alert and Notification System (G)			FFD/Personnel Reliability Program (G)
	Residual Heat Removal System Unavailability (G)					
	Safety System Functional Failures (G)					

Typical Performance Indicator

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Scrams with Loss of Normal Heat Removal



Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

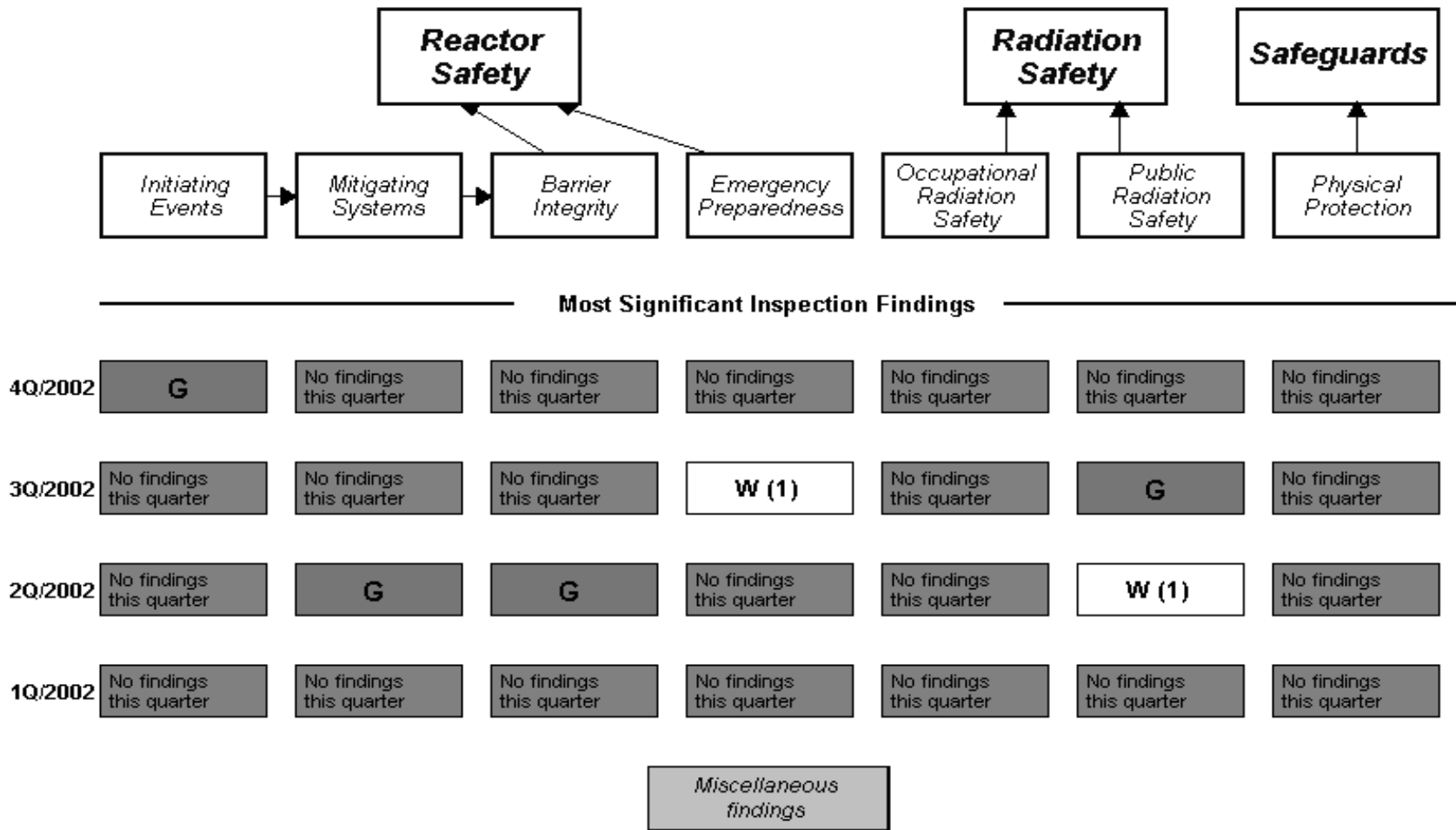
Calvert Cliffs Inspection Activities

(Jan 1 - Dec 31, 2002)

- 5427 hours of inspection related activities
- 2 resident inspectors assigned to the site
- 22 regional inspector visits
 - ▶ Included 3 team inspections (SSDI, PI&R, EP)
- Inspection Findings (common for both Units)
 - ▶ 4 findings of very low safety significance (Green)
 - ▶ 2 findings of low to moderate safety significance (White)

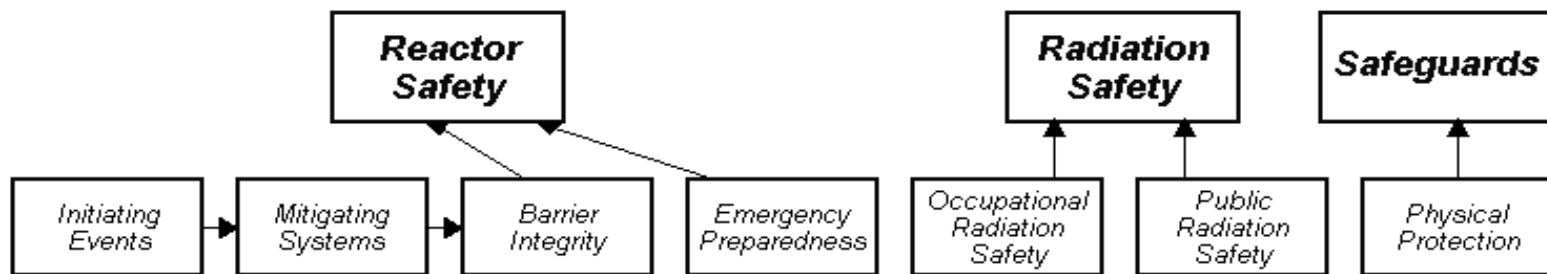
Unit 1 - Inspection Results

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Unit 2 - Inspection Results

WWW.NRC.GOV then click Reactor Oversight Process



Most Significant Inspection Findings

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

Miscellaneous findings

Unit 1 - Action Matrix

Cornerstone	Description of Issue	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
		01	01	01	01	02	02	02	02	03	03	03	03
		ROP 2				ROP 3				ROP 4			
Initiating Events	PI Scrams with a Loss of Normal Heat Removal	WHITE											
Mitigating Systems	PI Heat Removal System Unavailability due 11 AFW Pump						W						
	Finding 11 AFW Pump Failure due to turbine bearing housing FME			YELLOW									
Barrier Integrity													
Emergency Preparedness	Finding Calvert County all 49 sirens not capable activated for 84 days							WHITE					
Public Radiation Safety	Finding Rad material shipment exceeds transportation limit >200mR/Hr						WHITE						
Occupational Radiation Safety													
Physical Protection													
ACTION MATRIX		DEGRADED CORNERSTONE						REGULATORY RESPONSE					

-Licensee Resp. - All Inputs GREEN

-Regulatory Resp. - 1 or 2 WHITES in different cornerstones in a Strategic Perform Area

-Degraded Cornerstone - 2 WHITE or 1 YELLOW in a single cornerstone OR any 3 WHITES in a Strategic Perform Area

-Multiple/Repetitive - Repetitive Degraded OR Multiple YELLOW or 1 RED

Unit 2 - Action Matrix

Cornerstone	Description of Issue	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
		01	01	01	01	02	02	02	02	03	03	03	03
		ROP 2				ROP 3				ROP 4			
Initiating Events													
Mitigating Systems													
Barrier Integrity													
Emergency Preparedness	Finding Calvert County all 49 sirens not capable activated for 84 days									WHITE			
Public Radiation Safety	Finding Rad material shipment exceeds transportation limit >200mR/Hr									WHITE			
Occupational Radiation Safety													
Physical Protection													
ACTION MATRIX		LICENSEE RESPONSE				REGULATORY RESPONSE				LICENSEE RESPONSE			

-**Licensee Resp** - All Inputs GREEN

-**Regulatory Resp** - 1 or 2 WHITES in different cornerstones in a Strategic Perform Area

-**Degraded Cornerstone** - 2 WHITE or 1 YELLOW in a single cornerstone OR any 3 WHITES in a Strategic Perform Area

-**Multiple/Repetitive** - Repetitive Degraded OR Multiple YELLOW or 1 RED

NRC Self-Improvement Efforts

- Security Enhancements
- Significance Determination Process Task Group
- Performance Indicator Program
- Davis-Besse Lessons Learned Task Force

NRC Security Program Update

- NRC has issued Interim Compensatory Measures and NRC Orders
- Office of Nuclear Security and Incident Response Formed (NSIR - April 2002)
- Threat Advisory and Protective Measure System
- Access Authorization Order (January 7, 2003)
- Force-on-Force Exercises (February 2003)
- Training Order (TBD)
- Fatigue Order (TBD)
- Design Basis Threat (TBD)

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)