

ANNUAL ASSESSMENT MEETING



U.S. Nuclear Regulatory Commission

Agenda

- Introduction
- Reactor Oversight Process
- Plant Performance Results
- PSEG Nuclear Remarks
- NRC Closing Remarks

NRC Representatives

- Glenn Meyer, Chief - Reactor Projects Branch 3
gwm@nrc.gov (610) 337-5211
- Ray Lorson, Senior Resident Inspector, Salem
rkl@nrc.gov (856) 935-5151
- Jeff Laughlin, Resident Inspector, Salem
jkl1@nrc.gov (856) 935-3850
- Joseph Schoppy, Resident Inspector, Hope Creek
jgs@nrc.gov (856) 935-3850
- Christopher Cahill, Resident Inspector, Hope Creek
cgc@nrc.gov (856) 935-5373

Agenda

- Introduction
- Reactor Oversight Process
- Plant Performance Results
- PSEG Nuclear Remarks
- NRC Closing Remarks

Reactor Oversight Process NRC Web Site

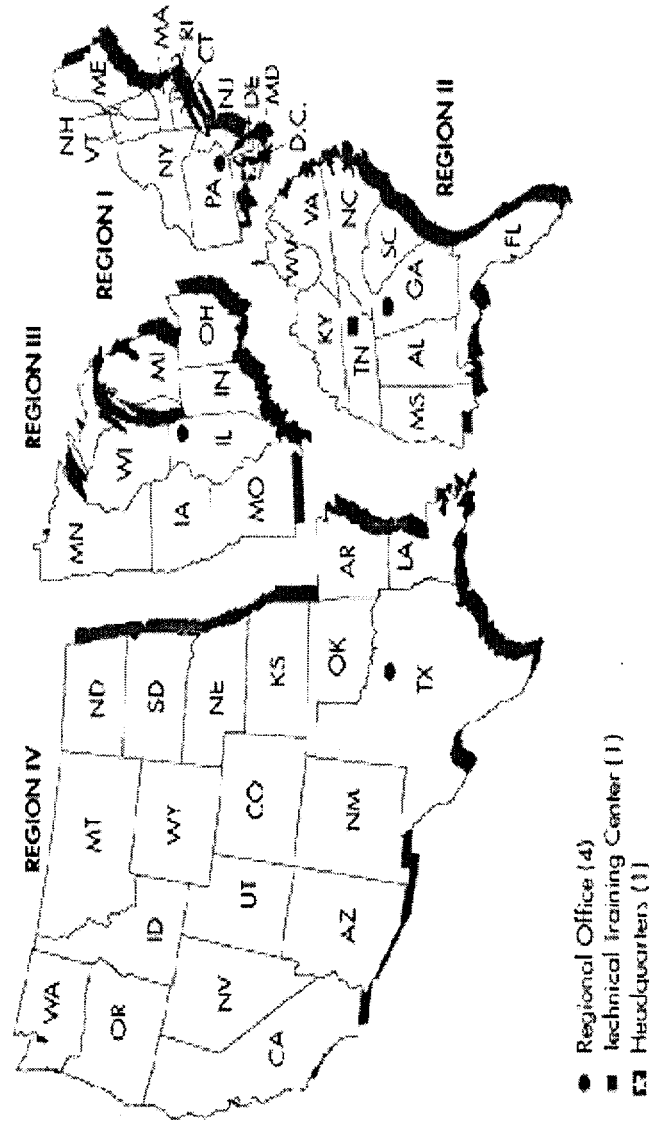
WWW.NRC.GOV/NRR/OVERSIGHT

**Documents are also available via ADAMS or by
contacting the PDR at 1-800-397-4209**

NRC Activities

- Ensure nuclear plants are designed, constructed, and operated safely
- Issue licenses for the peaceful use of nuclear materials in the U. S.
- Ensure licensees use nuclear materials and operate plants safely, and are prepared to respond to emergencies

NRC REGIONAL OFFICES



Note: Alaska and Hawaii are included in Region IV.
Source: Nuclear Regulatory Commission

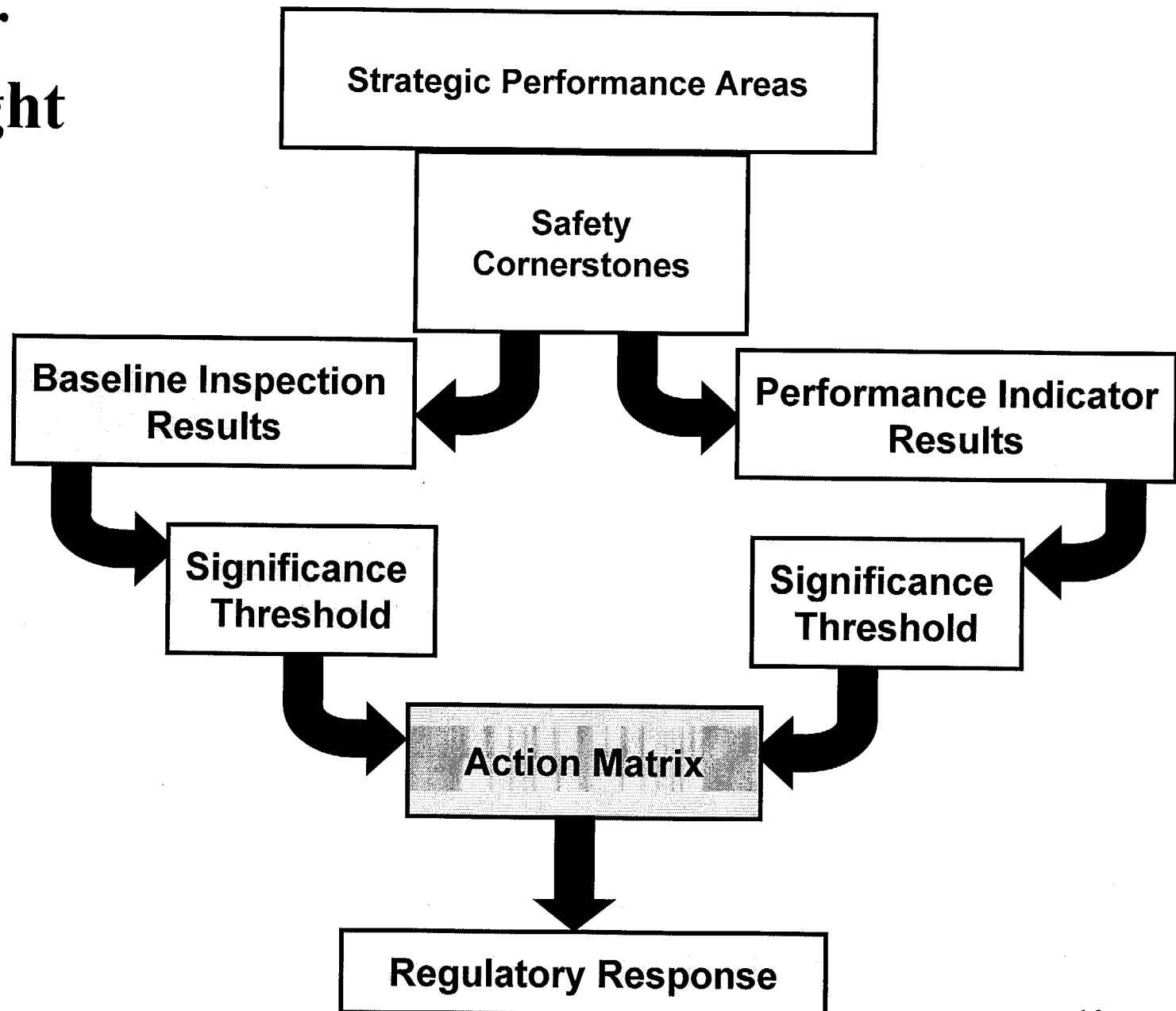
NRC Performance Goals

- Maintain safety and protect the environment
- Enhance public confidence
- Improve effectiveness, efficiency, and realism of processes and decision making
- Reduce unnecessary regulatory burden

NRC Oversight Activities

- Provides assurance plants are operating safely and in accord with the regulations
- Risk informed process
- Objective indicators of performance
- Inspections focused on key safety areas
- Defines expected NRC and Licensee actions

Reactor Oversight Process



Strategic Performance Areas

Safety Cornerstones

- Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

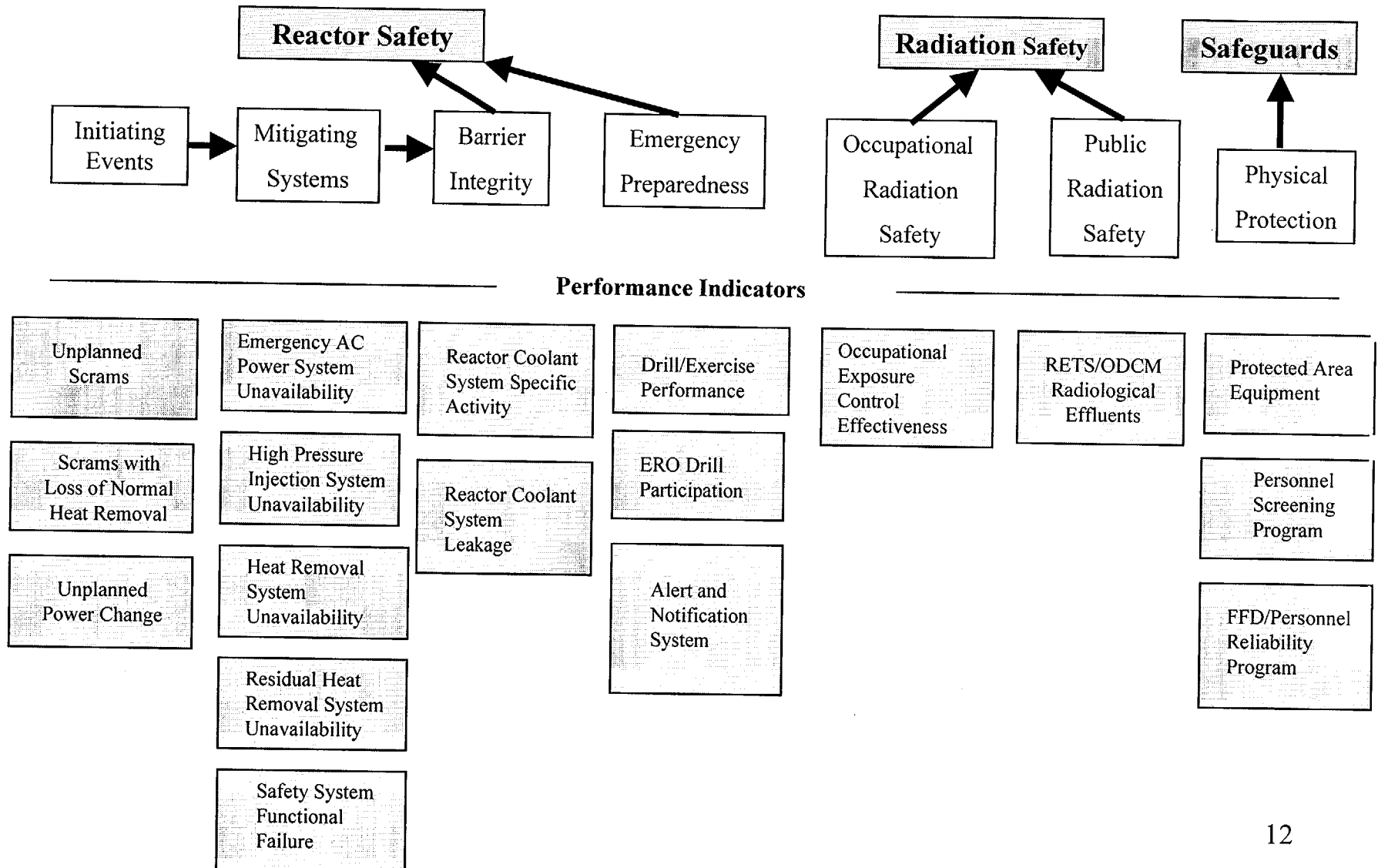
- Radiation Safety

- Occupational Radiation Safety
- Public Radiation Safety

- Safeguards

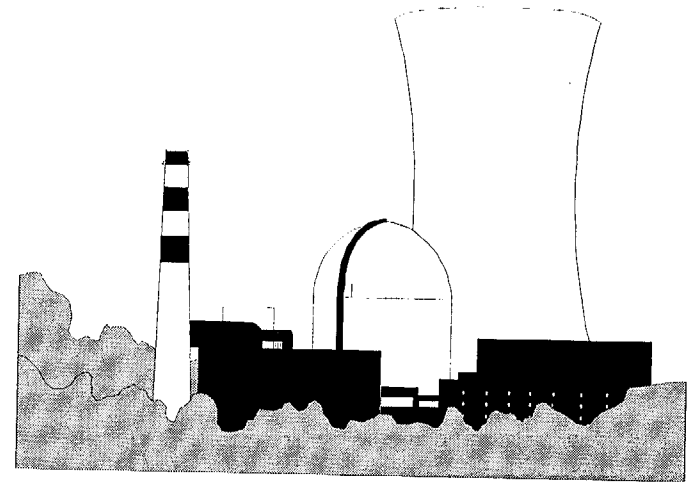
- Physical Protection

Relationship of Strategic Performance Areas, Safety Cornerstones and Performance Indicators



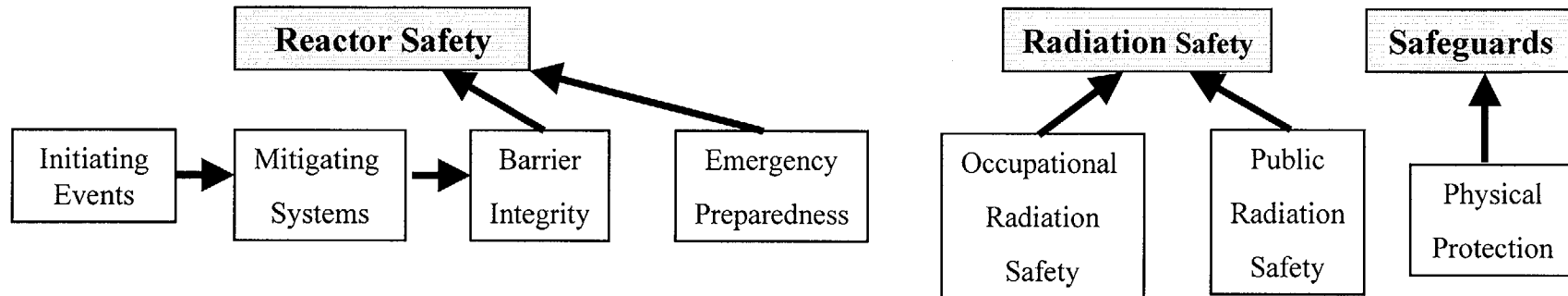
NRC Resident and Regional Inspectors Conduct Safety Inspections

Baseline Inspections at all
reactor sites to monitor plant
safety performance in each of
the strategic Performance Areas



Event follow-up and Supplemental Inspections when
required

Inspection Areas



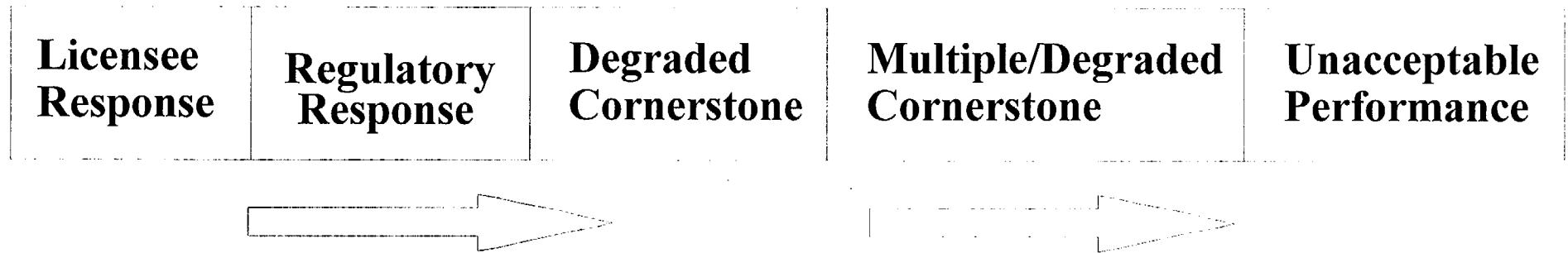
Inspection Procedures

- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> • Adverse Weather • Evaluation of Changes • Equipment Alignment • Fire Protection • Flood Protection • Heat Sink • In-service Inspection • Operator Requalification • Maintenance Rule Imp • Non-Routine Plant Events | <ul style="list-style-type: none"> • Operability Evaluation • Operator Workarounds • Permanent Plant Mods-Online • Permanent Mods • Post Maintenance Testing • Refueling Outage • SSDI • Surveillance Testing • Temporary Modifications • PI&R • Event Follow-up • PI Verification | <ul style="list-style-type: none"> • Exercise Evaluation • Alert and Notice • ERO Augment • EAL • EP Preparation • Drill Evaluation • RAD Access • ALARA Plan • RAD monitoring • RAD effluents • RAD Transport • RAD Environmental | <ul style="list-style-type: none"> • Sec Authorization Access • Sec Search • Sec Response • Sec Plan change |
|--|--|--|---|

Key Aspects of Baseline Inspection Program

- Objective evidence of plant safety
- Conducted at all plants
- Emphasizes safety significant systems, components, activities, and events
- Monitors licensee effectiveness in finding and fixing safety issues
- Inspection reports describe significant findings and non-compliance
- Inspection reports are publicly accessible

Action Matrix Concept



Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions

Examples of Baseline Inspections

- Plant safety tours
- Plant control room tours
- Maintenance and alignment of equipment
- Operator response during simulated emergency conditions
- Worker radiation protection
- Controls for radiation releases
- Plant security

Event Follow-up and Supplemental Inspection

- Review events for significance
- Follow-up significant inspection findings
- Determine causes of performance declines
- Provides for graduated response

Significance Threshold

Performance Indicators

Green: Performance requiring no NRC oversight beyond Baseline Inspection

White: Performance may result in increased NRC oversight

Yellow: Performance that minimally reduces safety margin and requires more NRC oversight

Red: Performance that represents significant reduction in safety, requires more NRC oversight, but provides adequate protection to public health and safety

Significance Threshold

Inspection Findings

Green: Very low safety issue

White: Low to moderate safety issue

Yellow: Substantial safety issue

Red: High safety issue

Key Aspects of Assessment Program

- Objective assessment of performance
- “Action Matrix” to determine agency response to performance:
 - Inspection level increases
 - Management involvement increases
 - Regulatory actions increase
- Plant specific assessment letters
- Information on NRC public web site

Agenda

- Introduction
- Reactor Oversight Process
- Plant Performance Results
- PSEG Nuclear Remarks
- NRC Closing Remarks

National Summary

First Quarter Calendar Year 2001
Performance Indicator Results

Green	1818
White	14
Yellow	0
Red	0

Total Inspection Findings
(April 2000 - March 2001)

Green	1031
White	20
Yellow	1
Red	1

National Summary

Plant Performance -102 Reactors

(At End of First Quarter Calendar Year 2001)

Licensee Response.....83

Regulatory Response.....15

Degraded Cornerstone.....3

Multiple/Repetitive

Degraded Cornerstone.....1

Unacceptable.....0

NRC Inspection activity at Salem & Hope Creek During ROP-1

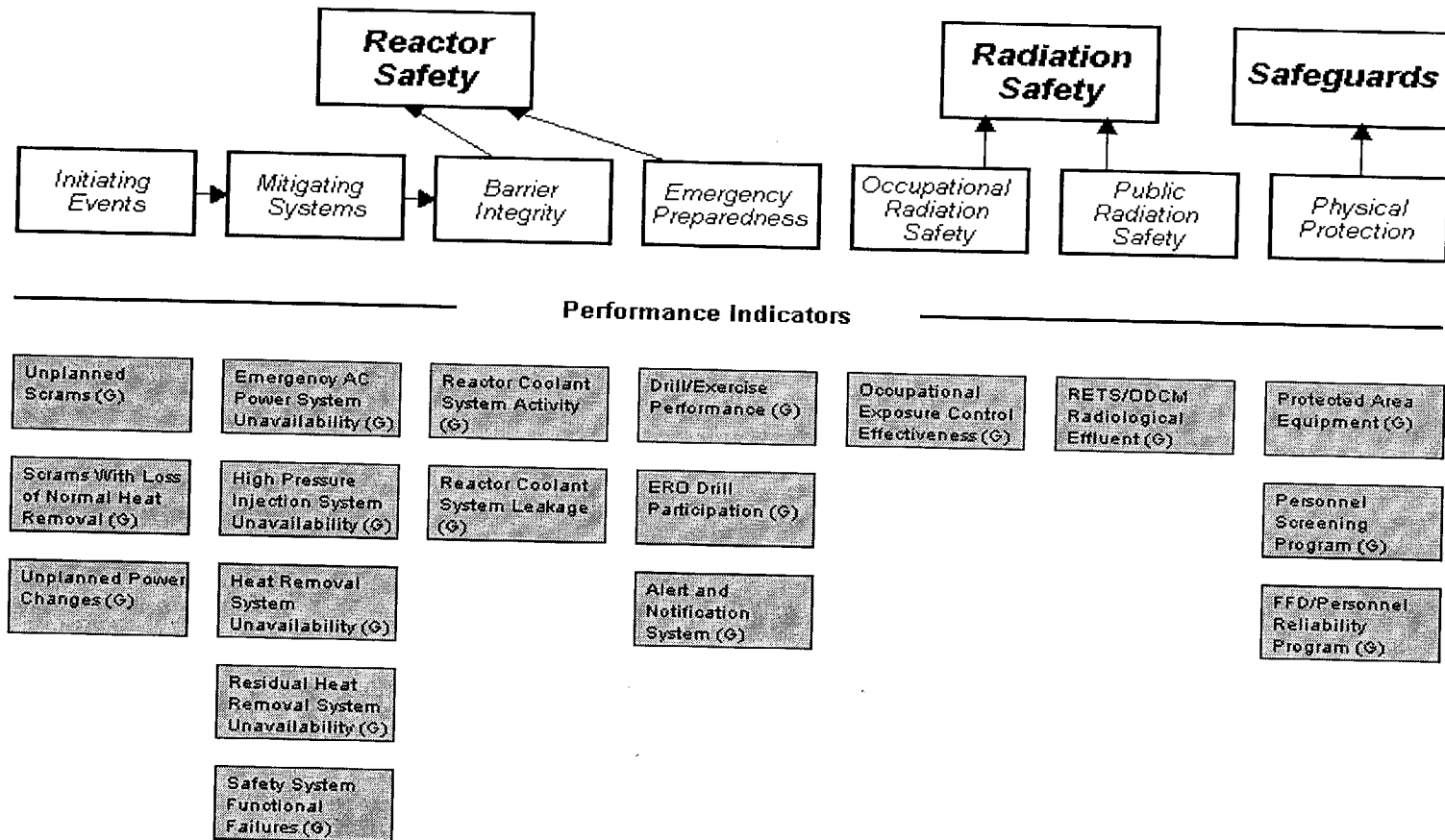
- **Approximately 4,200 hours expended on inspections, preparation and documentation by the resident inspectors**
- **Almost 4,000 hours expended on inspections, preparation and documentation by the Region 1 specialist inspectors**
- **Large Inspection Teams included:**
 - Problem Identification and Resolution Inspection jointly
 - Triennial Fire Protection Inspection at Hope Creek
 - Safety System Design Inspection at Hope Creek

Salem Annual Assessment

- Operated safely
- Fully met all cornerstone objectives
- Current performance within Licensee Response Column of Action Matrix
 - All Inspection Findings of very low safety significance (Green)
 - All Performance Indicators are Green
- Salem 1 - White for unplanned scrams in 4th Qtr 2000
 - Supplemental Inspections completed
- NRC plans to conduct the baseline inspections at Salem during ROP-2

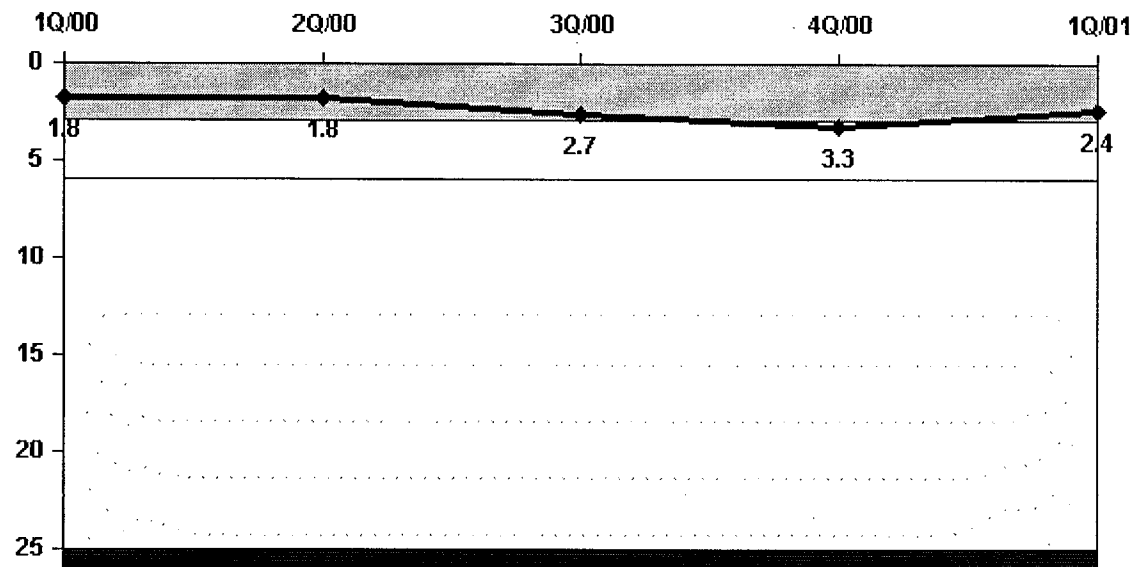
NRC Web Site - Plant Assessment Results

Salem 1 1Q/2001 Performance Summary



NRC Web Site - Plant Assessment Results

Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

NRC Web Site - Plant Assessment Results

	<i>Initiating Events</i>	<i>Mitigating Systems</i>	<i>Barrier Integrity</i>	<i>Emergency Preparedness</i>	<i>Occupational Radiation Safety</i>	<i>Public Radiation Safety</i>	<i>Physical Protection</i>
	Most Significant Inspection Findings						
1Q/2001	Findings without color designation	G	No findings this quarter	No findings this quarter	No findings this quarter	G	No findings this quarter
4Q/2000	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
3Q/2000	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
2Q/2000	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
	Miscellaneous findings						
	Additional Inspection & Assessment Information						

Assessment Reports/Inspection Plans:

- ◉ 1Q/2001
- ◉ 4Q/2000
- ◉ 3Q/2000
- ◉ 2Q/2000

List of Inspection Reports

NRC Web Site - Plant Assessment Results

Mitigating Systems

Significance: **G** | Dec 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

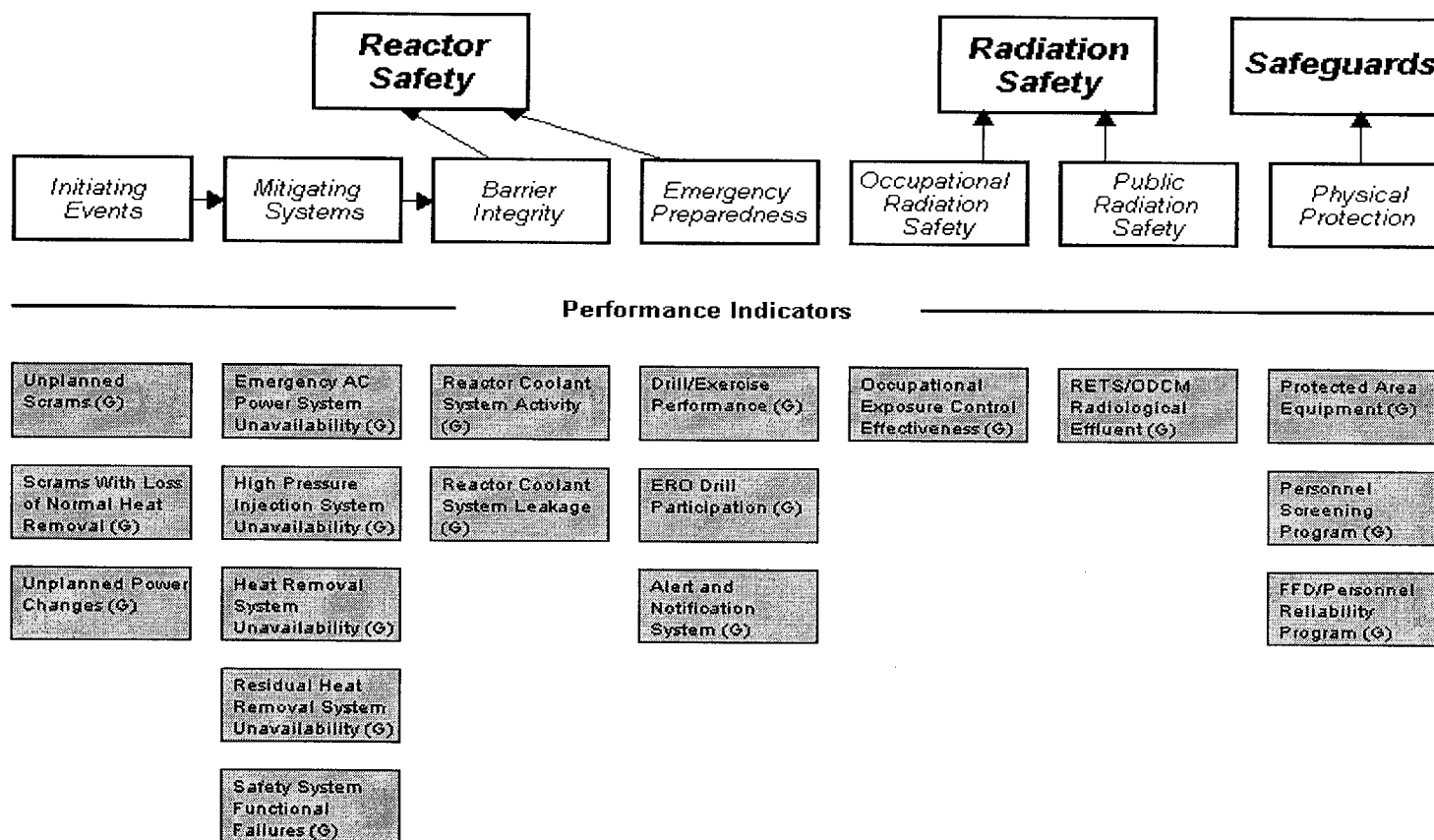
FAILURE TO PROPERLY ALIGN THE BREAKER FOR A UNIT 1 SERVICE WATER PUMP

Operators failed to properly align the breaker for a Unit 1 service water pump following maintenance. This resulted in the pump failing to start approximately 11 days after being returned to service. Also, the corrective action investigation was not thorough and did not recognize that the pump may have been inoperable for these 11 days. The failure to properly align the breaker was a non-cited violation. The finding was of very low safety significance (Green) because redundant mitigating equipment was available during the periods when the pump was unavailable.

Inspection Report# : 2000010(pdf)

NRC Web Site - Plant Assessment Results

Salem 2 1Q/2001 Performance Summary



NRC Web Site - Plant Assessment Results

	<i>Initiating Events</i>	<i>Mitigating Systems</i>	<i>Barrier Integrity</i>	<i>Emergency Preparedness</i>	<i>Occupational Radiation Safety</i>	<i>Public Radiation Safety</i>	<i>Physical Protection</i>
	Most Significant Inspection Findings						
1Q/2001	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
4Q/2000	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
3Q/2000	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
2Q/2000	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
	<i>Miscellaneous findings</i>						
	Additional Inspection & Assessment Information						

Assessment Reports/Inspection Plans:

- ◉ 1Q/2001
- ◉ 4Q/2000
- ◉ 3Q/2000
- ◉ 2Q/2000

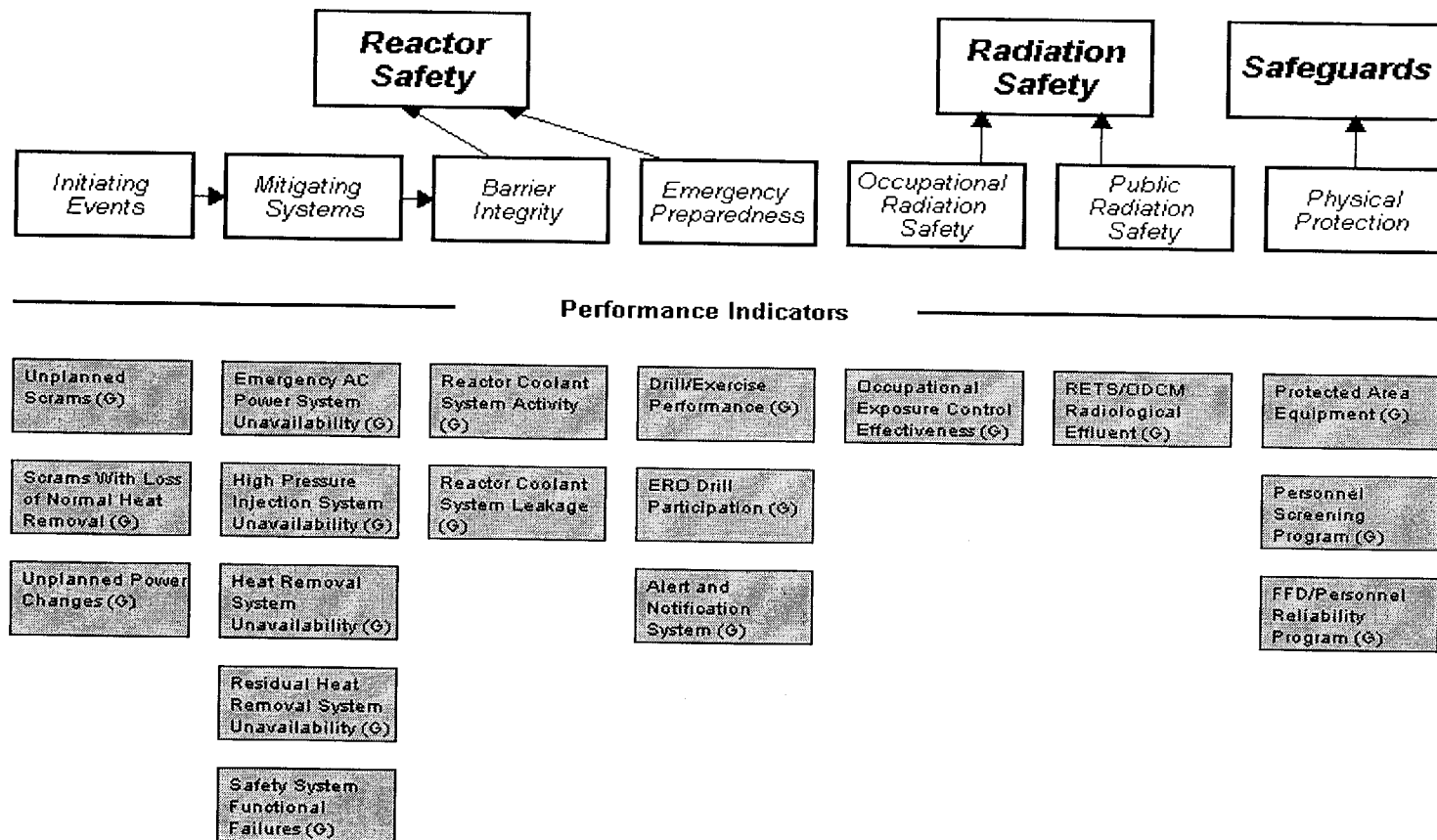
List of Inspection Reports

Hope Creek Annual Assessment

- Operated safely
- Fully met all cornerstone objectives
- Current performance within Licensee Response Column of Action Matrix
 - All Inspection Findings of very low safety significance (Green)
 - All Performance Indicators are Green
- NRC plans to conduct the baseline inspections at Hope Creek during ROP-2

NRC Web Site - Plant Assessment Results

Hope Creek 1 1Q/2001 Performance Summary



NRC Web Site - Plant Assessment Results

	<i>Initiating Events</i>	<i>Mitigating Systems</i>	<i>Barrier Integrity</i>	<i>Emergency Preparedness</i>	<i>Occupational Radiation Safety</i>	<i>Public Radiation Safety</i>	<i>Physical Protection</i>
	Most Significant Inspection Findings						
1Q/2001	No findings this quarter	G	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter
4Q/2000	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
3Q/2000	No findings this quarter	G	G	No findings this quarter	G	No findings this quarter	No findings this quarter
2Q/2000	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter
	Miscellaneous findings						
	Additional Inspection & Assessment Information						

Assessment Reports/Inspection Plans:

- ◉ 1Q/2001
- ◉ 4Q/2000
- ◉ 3Q/2000
- ◉ 2Q/2000

List of Inspection Reports

Agenda

- Introduction
- Reactor Oversight Process
- Plant Performance Results
- PSEG Nuclear Remarks
- NRC Closing Remarks