

End of Cycle Assessment Results Point Beach Nuclear Power Plant



**United States
Nuclear Regulatory Commission**

AGENDA

- **Introduction**
 - NRC
 - Reactor Oversight Process
- **Current End of Cycle Assessment Results**
 - Performance Indicators
 - Inspection Results
- Discussion of Current Plant Performance
- Concluding Remarks

***NRC Staff will be available after the meeting
to answer any questions***

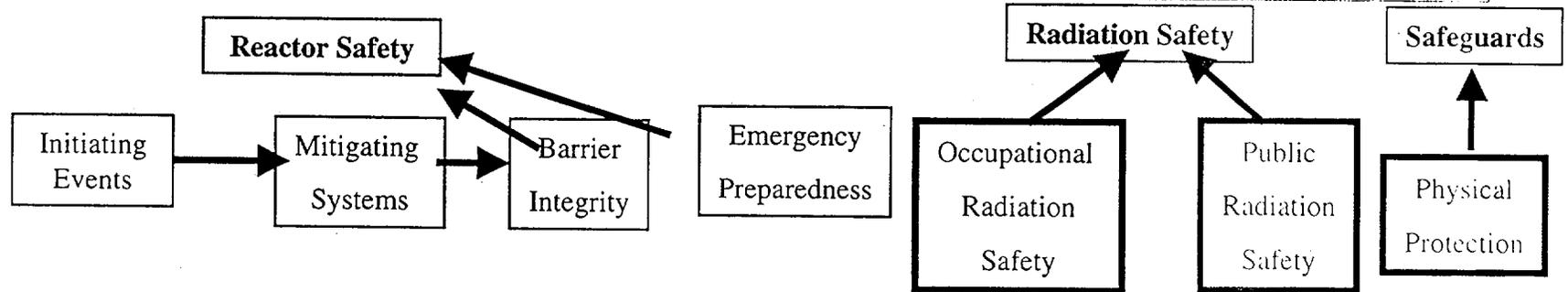
NRC Activities

- **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**

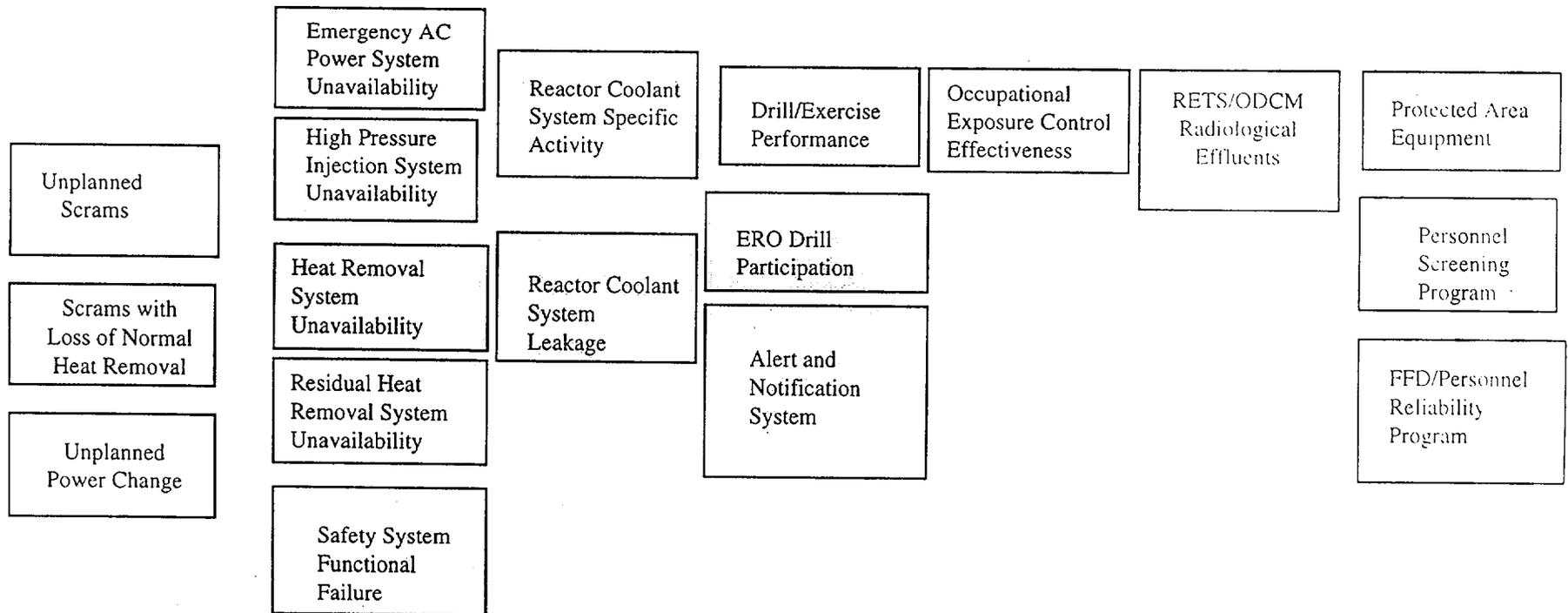
FOUR KEY NRC OUTCOME MEASURES

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

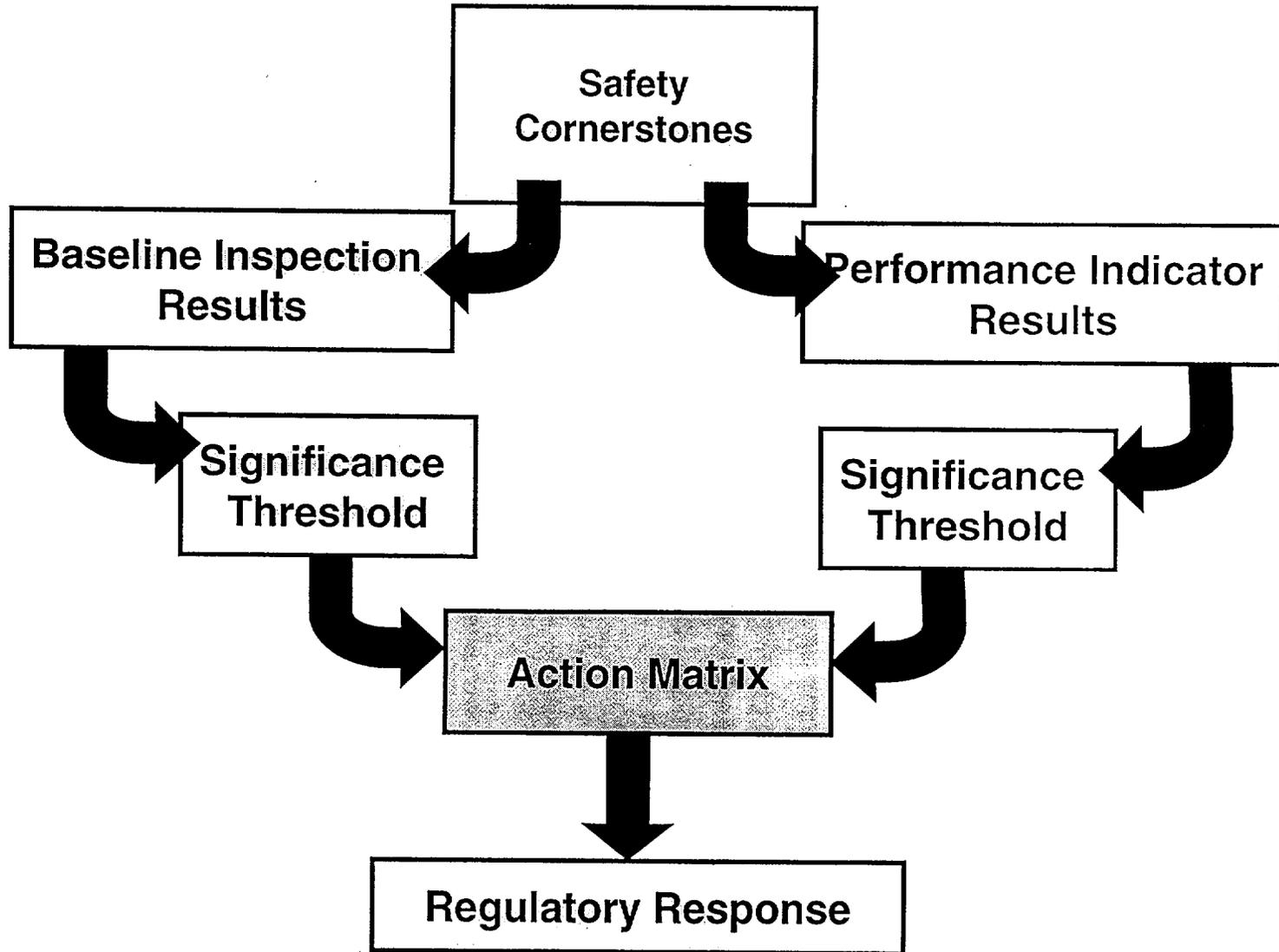
The three Strategic Performance Areas are subdivided into seven Cornerstones which are subdivided into 18 Performance Indicators



Performance Indicators
Based on data first quarter 2000

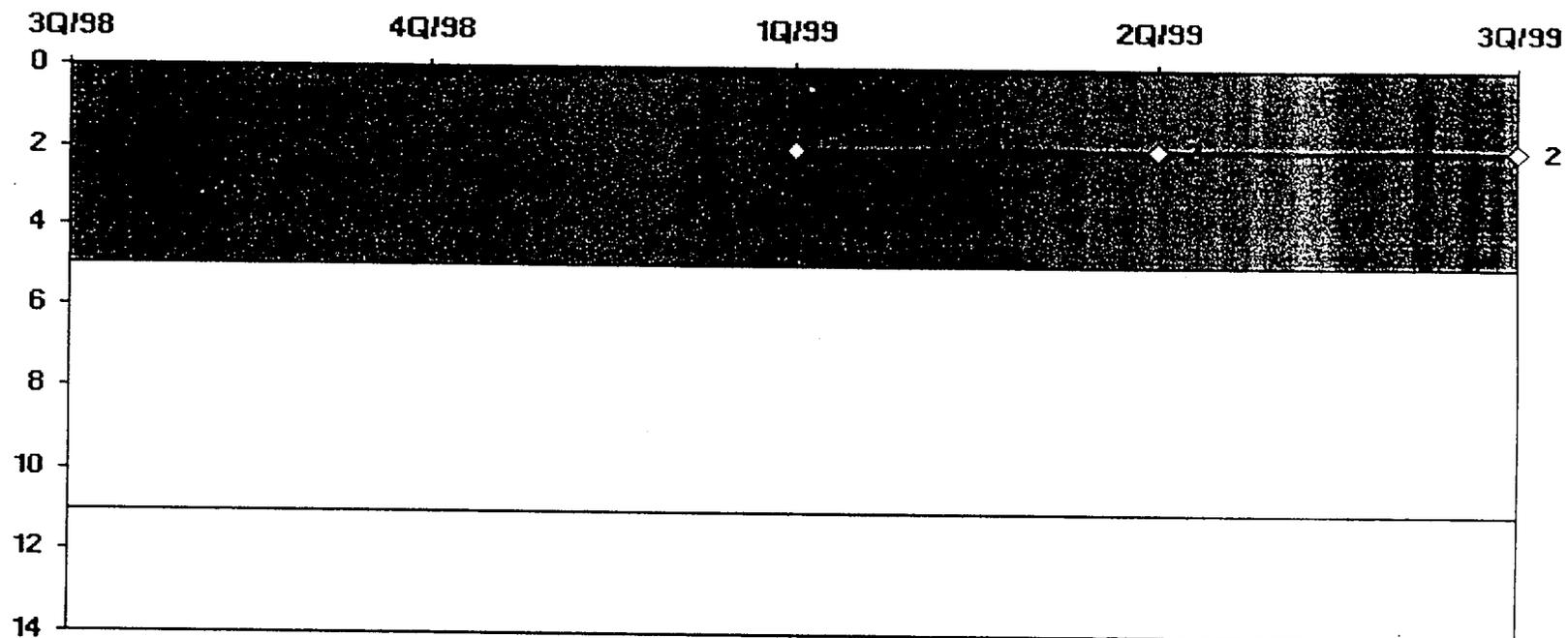


Reactor Oversight Process



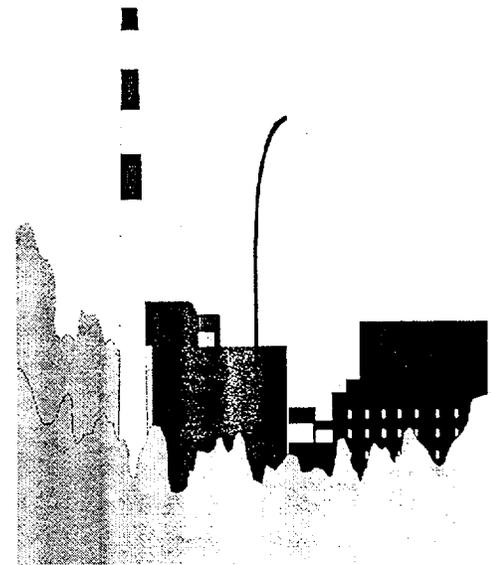
A Performance Indicator uses objective data to monitor performance in each Cornerstone area

Occupational Exposure Control Effectiveness



NRC Conducts Safety Inspections

NRC resident and regional inspectors utilize a Baseline Inspection Program to monitor plant safety performance in each of the Strategic Performance Areas



Examples of Baseline Inspection

- Daily plant tours
- Daily control room tours
- Inspect maintenance of important equipment
- Inspect controls for radiation protection of plant workers
- Inspect controls for radiation releases
- Plant security inspections

Supplemental Inspection and Event Follow-up

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

Key Aspects of Baseline Inspection Program

- **Objective evidence of plant safety**
- **Determines causes of performance declines**
- **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 to public**

Key aspects of assessment program

- **Objective assessment of performance**
- **Utilizes “Action Matrix” to determine agency actions in response to performance**
- **Provides plant specific assessment letters**
- **Assessment information on NRC public web site**

An Action Matrix is used to assess overall plant safety performance and specify thresholds for NRC Enforcement Actions

	Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/ Repetitive Degraded Cornerstone Column	Unacceptable Performance Column	
R E S U L T S		All Assessment Inputs (Performance Indicators (PIs) and Inspection Findings) Green; Cornerstone Objectives Fully Met	One or Two White Inputs (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Fully Met	One Degraded Cornerstone (2 White Inputs or 1 Yellow Input) or any 3 White Inputs in a Strategic Performance Area; Cornerstone Objectives Met with Minimal Reduction in Safety Margin	Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or 1 Red Input; Cornerstone Objectives Met with Longstanding Issues or Significant Reduction in Safety Margin	Overall Unacceptable Performance; Plants Not Permitted to Operate Within this Band; Unacceptable Margin to Safety
R E S P O N S E	Regulatory Performance Meeting	None	Branch Chief (BC) or Division Director (DD) Meet with Licensee	DD or Regional Administrator (RA) Meet with Licensee	RA (or EDO) Meet with Senior Licensee Management	Commission meeting with Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee root cause evaluation and corrective action with NRC Oversight	Licensee Self Assessment with NRC Oversight	Licensee Performance Improvement Plan with NRC Oversight	
	NRC Inspection	Risk-Informed Baseline Inspection Program	Baseline and supplemental inspection procedure 95001	Baseline and supplemental inspection procedure 95002	Baseline and supplemental inspection procedure 95003	
	Regulatory Actions	None	Supplemental inspection only	Supplemental inspection only	-10 CFR 2.204 DFI -10 CFR 50.54(h) Letter - CAL/Order	Order to Modify, Suspend, or Revoke Licensed Activities
C O M M U N I C A T I O N	Assessment Letters	BC or DD review/sign assessment report (w/ inspection plan)	DD review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan); Commission Informed	
	Annual Public Meeting	SRI or BC Meet with Licensee	BC or DD Meet with Licensee	RA (or designee) Discuss Performance with Licensee	EDO (or Commission) Discuss Performance with Senior Licensee Management	Commission Meeting with Senior Licensee Management
INCREASING SAFETY SIGNIFICANCE ----->						

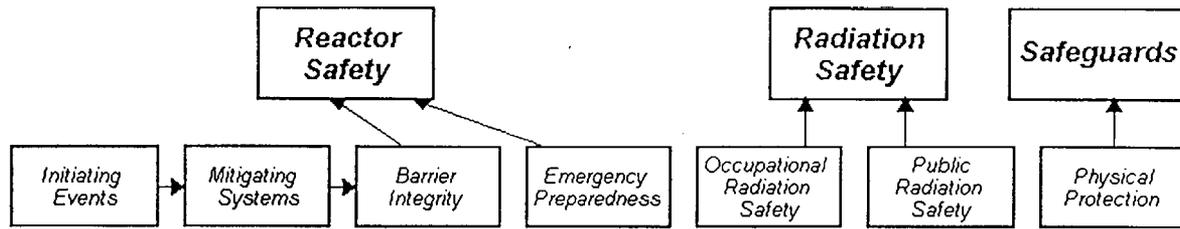
May 2001
Point Beach End of Cycle
Performance Assessment Results

- **Safe Plant Operation**
- **White Scrams With Loss of Normal Heat Removal Performance Indicator for Unit 2**
 - **Four Scrams During Assessment Period - One Unit 1 and Three Unit 2**
- **White Alert and Notification System Performance Indicator - Both Units**
- **All Other Performance Indicators Green**
- **All Inspection Findings were determined to be of very low safety significance.**



Current Action Matrix Column: Regulatory Response Column

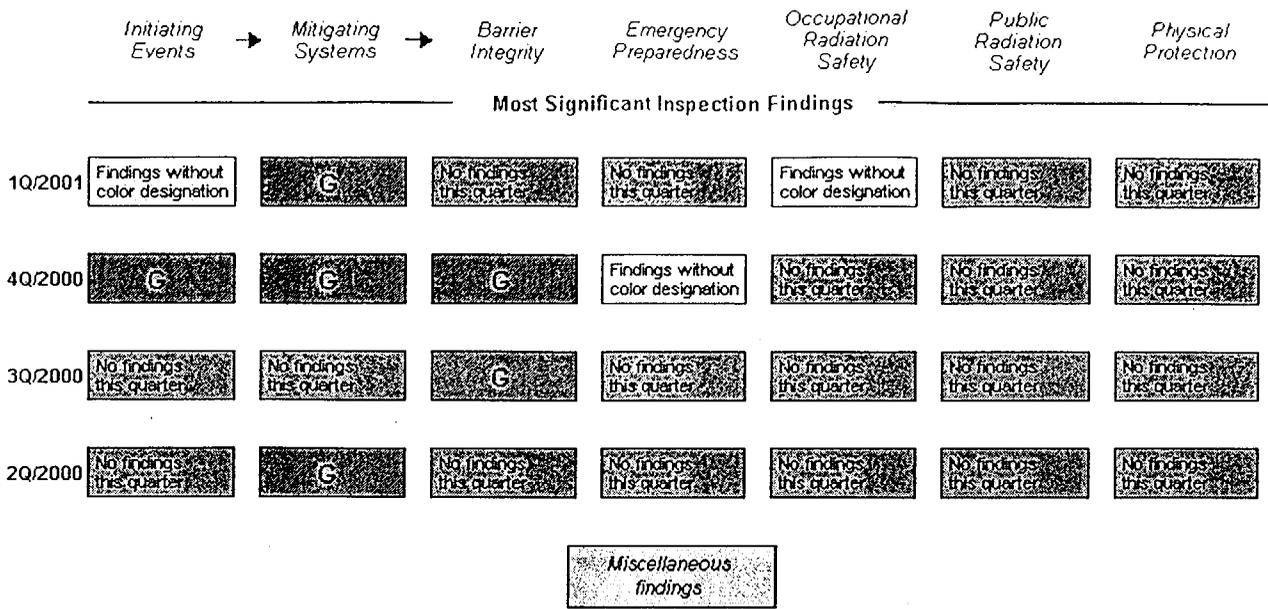
Point Beach 1
1Q/2001 Performance Summary



Performance Indicators

Unplanned Scrams (C)	Emergency AF Power System Unavailability (C)	Reactor Coolant System Action (C)	Drivewires Performance (C)	Occupational Exposure Control Effectiveness (C)	RETS/ODCM Radiological Effluent (C)	Protected Area Equipment (C)
Scrams With Loss of Normal Heat Removal (W)	High Pressure Injection System Unavailability (C)	Reactor Coolant System Leakage (C)	ERC Drill Participation (C)			Personnel Screening Program (C)
Unplanned Power Changes (C)	Heat Removal System Unavailability (C)		Alert and Notification System (C)			EDD Personnel Reliability Program (C)
	Residual Heat Removal System Unavailability (C)					
	Safety System Functional Failures (C)					

Legend: R=Red W=White T=Thresholds under development N=Not Applicable
 Y=Yellow C=Green I=Insufficient data to calculate PI U=Unique Design



Additional Inspection & Assessment Information

Assessment Reports/Inspection Plans:

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

List of Inspection Reports

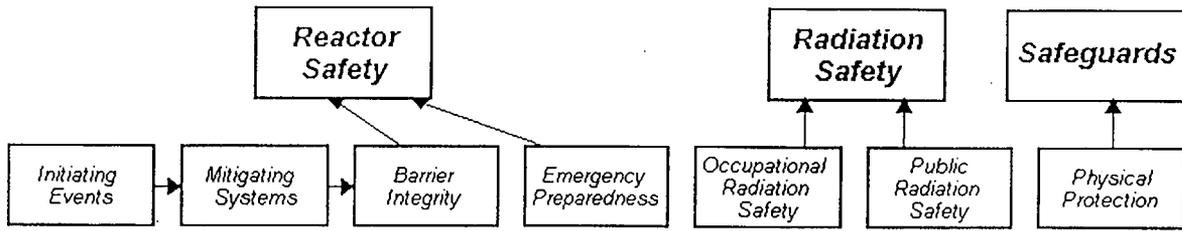
[PI Summary](#) | [Inspection Findings Summary](#) | [Action Matrix Summary](#) | [Plant Assessment Results](#)

Last Modified: June 12, 2001



Current Action Matrix Column: Licensee Response Column

Point Beach 2
1Q/2001 Performance Summary



Performance Indicators

Unplanned Scram (G)	Emergency AD Power System Unavailability (G)	Reactor Coolant System Availability (G)	DR/E-areas Performance (G)	Occupational Exposure Control Effectiveness (G)	RE/S/OPDM 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)	ERD Drill Participation (G)			Personnel Screening Program (G)
Unplanned Power Changes (G)	Heat Removal System Unavailability (G)		Alert and Notification System (G)			FD/Personnel Reliability Program (G)
	Residual Heat Removal System Unavailability (G)					
	Safety System Functional Failures (G)					

Legend: R=Red W=White T=Thresholds under development N=Not Applicable
 Y=Yellow G=Green I=Insufficient data to calculate PI U=Unique Design

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

Miscellaneous findings

Additional Inspection & Assessment Information

Assessment Reports/Inspection Plans:

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

List of Inspection Reports

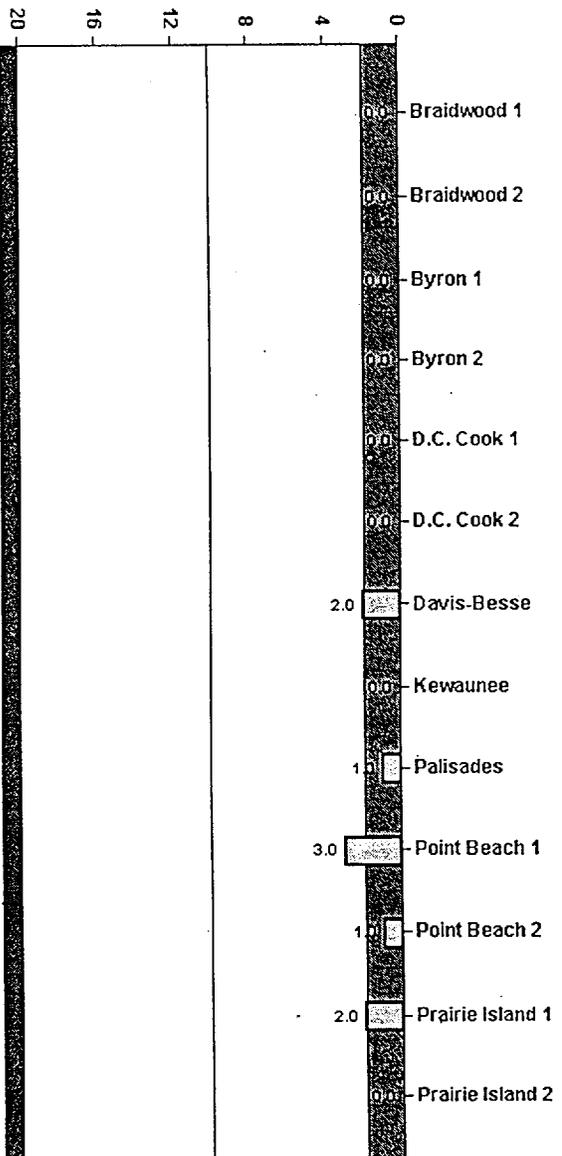
[PI Summary](#) |
 [Inspection Findings Summary](#) |
 [Action Matrix Summary](#) |
 [Plant Assessment Results](#)

Last Modified: June 12, 2001

Conclusions

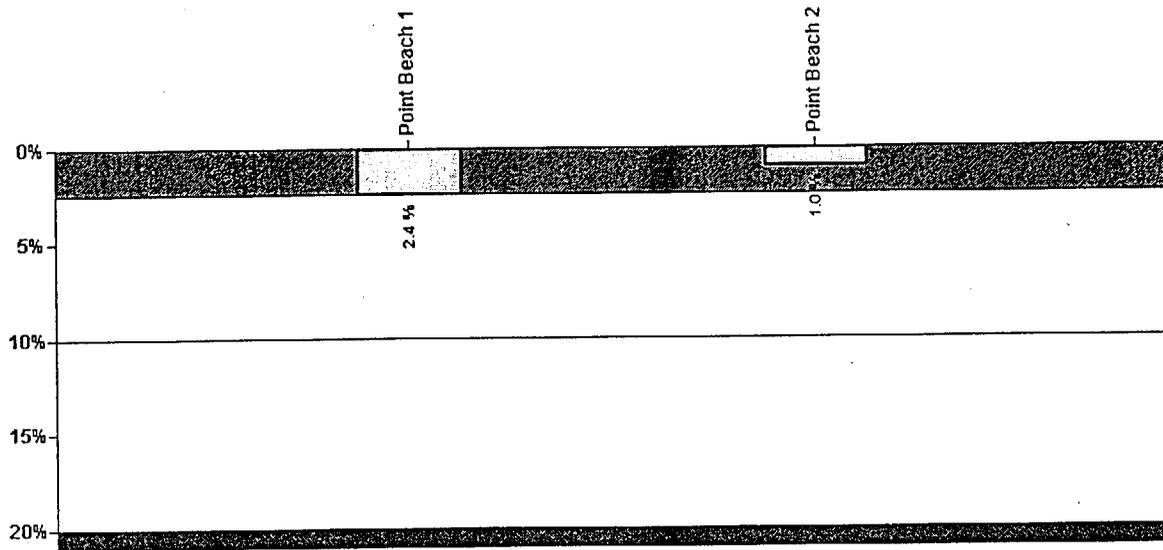
- Point Beach continues to be operated in a safe manner that preserves public health and safety.
- ***Challenges***
 - reduce number of scrams with loss of normal heat sink
 - improve Unit 1 emergency diesel generator reliability

Scrams with Loss of Normal Heat Removal



Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

Safety System Unavailability, Emergency AC Power, > 2EDG



Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

NRC INTERNET ADDRESS

<http://www.nrc.gov/nrc.html>

PERFORMANCE ASSESSMENT INTERNET ADDRESS

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