

# **ANNUAL ASSESSMENT MEETING**



**Nuclear Regulatory Commission**

# Agenda

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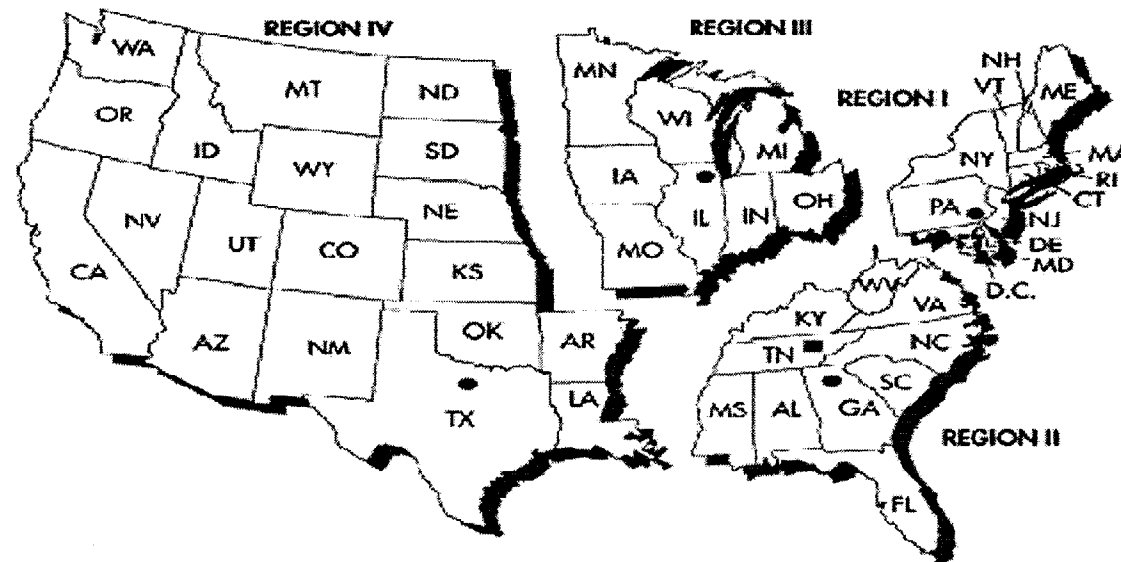
- Introduction
- Review of Reactor Oversight Process
- Discussion of Plant Performance Results
- Licensee Remarks
- NRC Closing Remarks

# NRC Activities

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- 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

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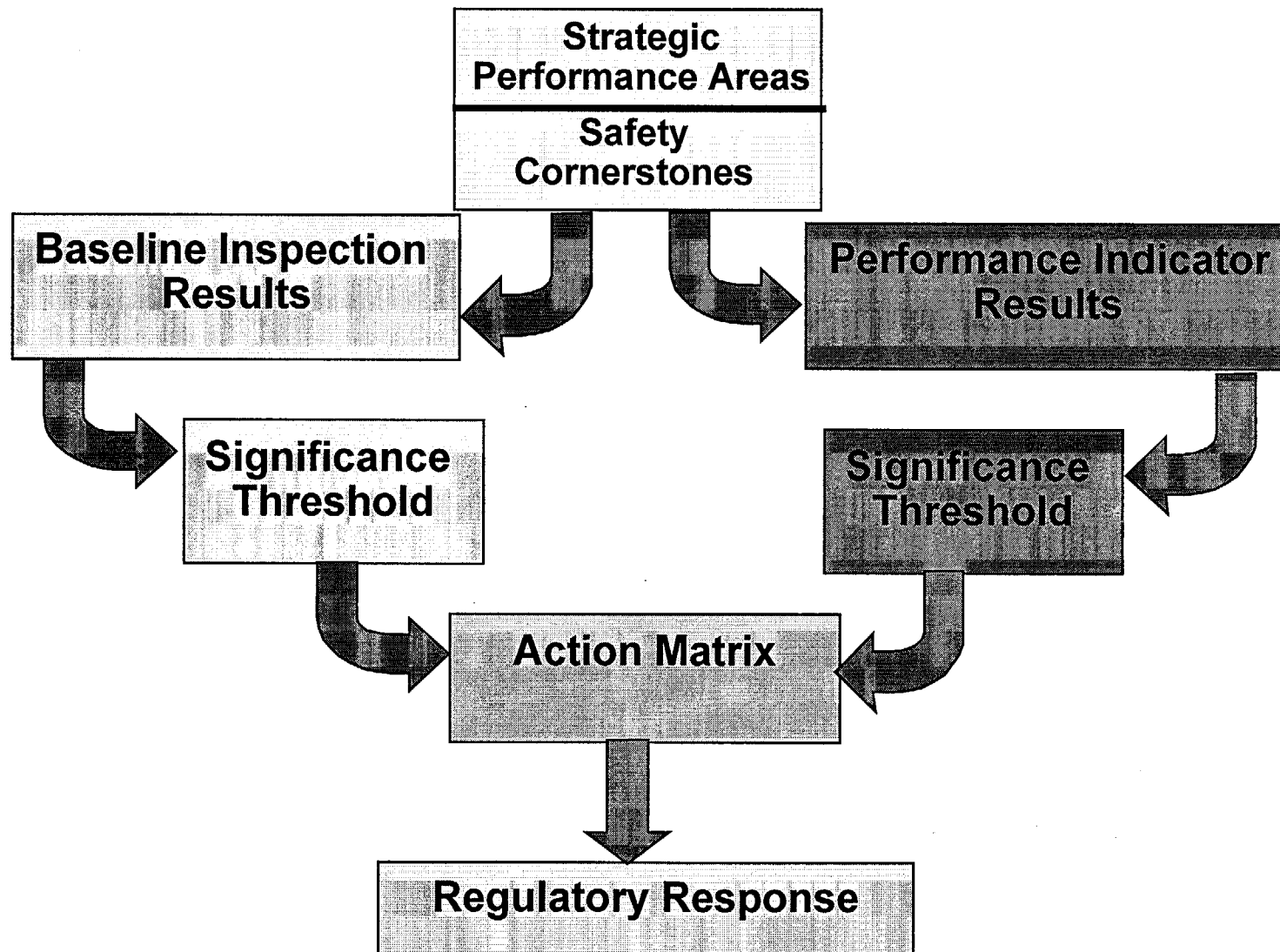
- Maintain safety and protect the environment
- Enhance public confidence
- Improve effectiveness, efficiency, and realism of processes and decision making
- Reduce unnecessary regulatory burden

# NRC Oversight Activities

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- Provides assurance plants are operating safely and in accordance 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

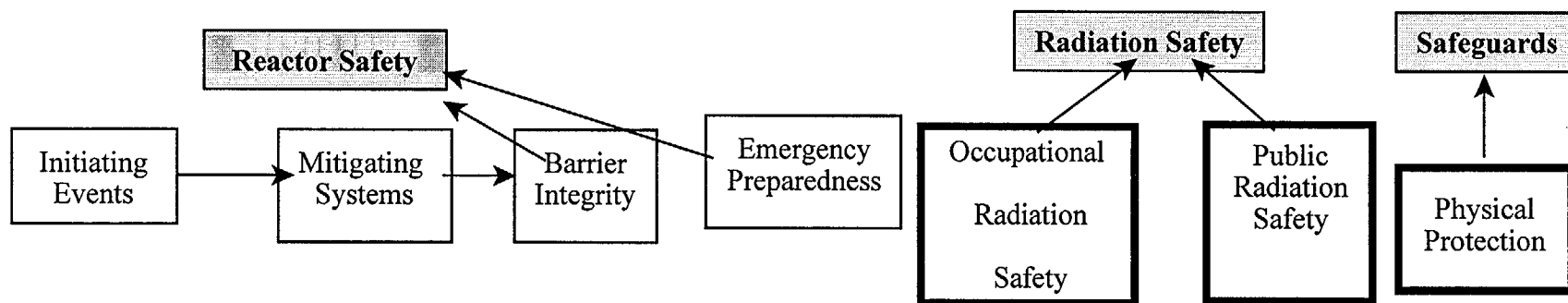
## Safety Cornerstones

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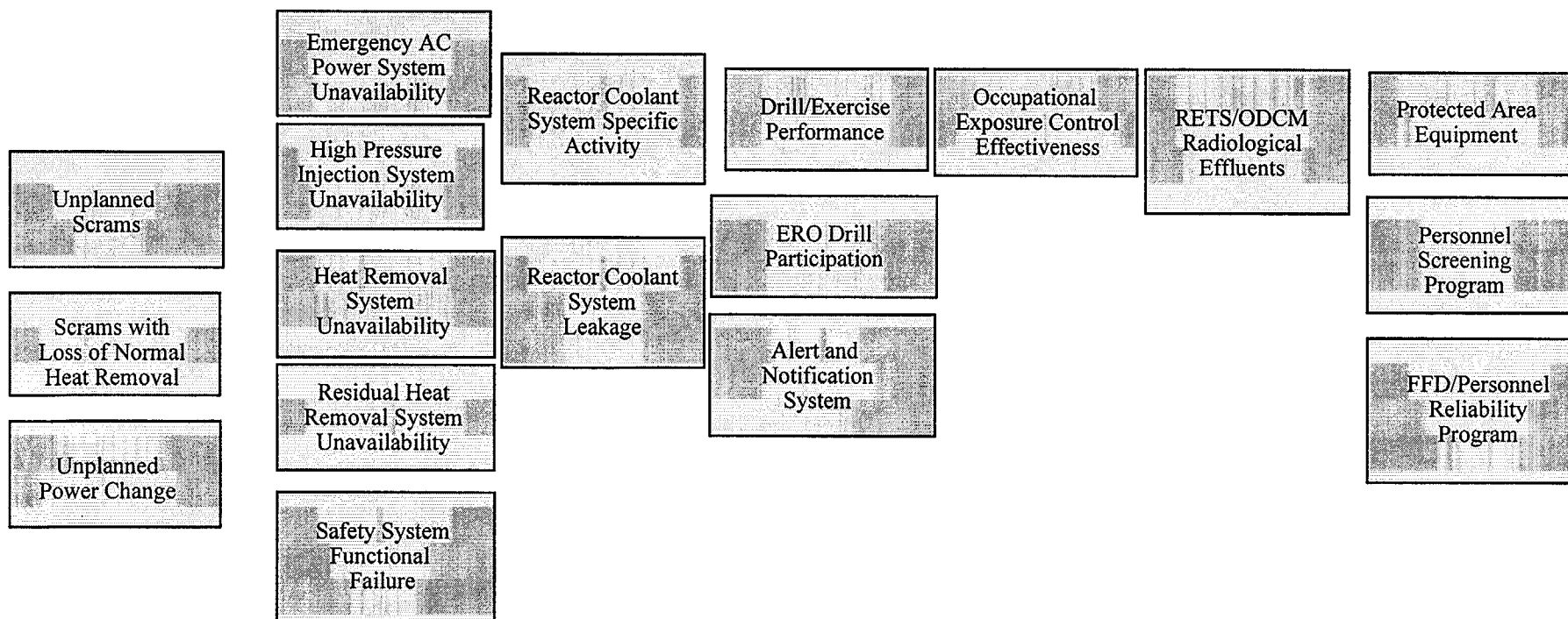
- Reactor Safety
  - Initiating Events
  - Mitigating Systems
  - Barrier Integrity
  - Emergency Preparedness
- Radiation Safety
  - Occupational Radiation Safety
  - Public Radiation Safety
- Safeguards
  - Physical protection



# Relationship of Strategic Performance Areas, Safety Cornerstones and Performance Indicators



## Performance Indicators

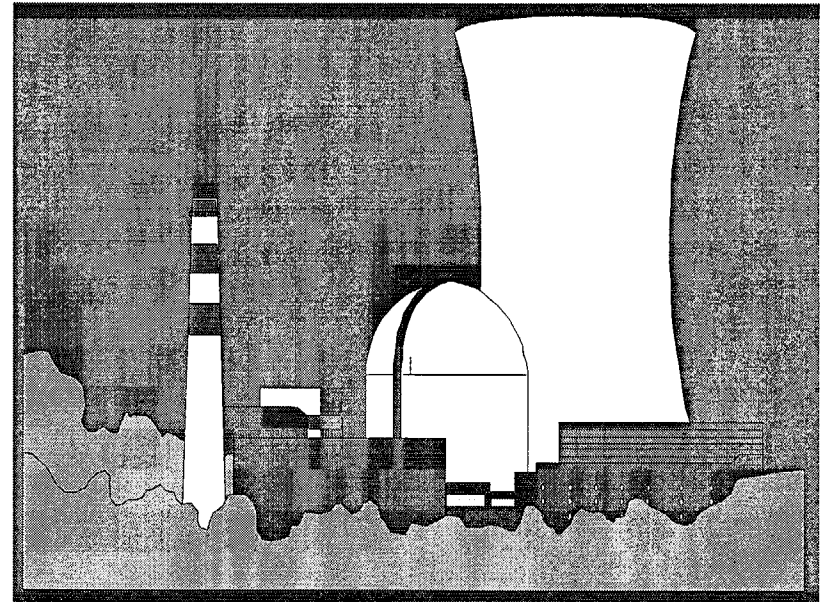


# NRC Resident and Regional Inspectors Conduct Safety Inspections

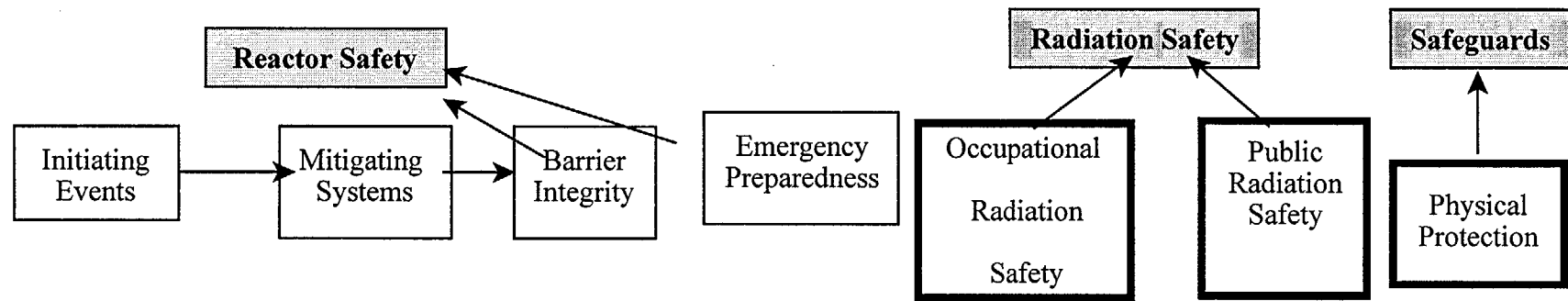
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Baseline Inspections at all reactor sites to monitor plant safety performance in each of the Strategic Performance Areas

Event Follow-up and Supplemental Inspections when required



# Inspection Areas



## Inspection Procedures

- |                               |                           |                       |                            |
|-------------------------------|---------------------------|-----------------------|----------------------------|
| ● Adverse Weather             | ● Operability Evaluation  | ● Exercise Evaluation | ● Sec Authorization Access |
| ● Evaluation of Changes       | ● Operator Workarounds    | ● Alert and Notice    | ● Sec Search               |
| ● Equipment Alignment         | ● Permanent Mods-Online   | ● ERO Augment         | ● Sec Response             |
| ● Fire Protection             | ● Permanent Mods          | ● EAL                 | ● Sec Plan change          |
| ● Flood Protection            | ● Post Maintenance Test   | ● EP Preparation      |                            |
| ● Heat Sink                   | ● Refueling Outage        | ● Drill Evaluation    |                            |
| ● In Service Inspection       | ● SSDI                    | ● RAD Access          |                            |
| ● Operator Requalification    | ● Surveillance Testing    | ● ALARA Plan          |                            |
| ● Maintenance Rule Imp        | ● Temporary Modifications | ● RAD monitoring      |                            |
| ● Maintenance Risk Assessment | ● PI&R                    | ● RAD Effluents       |                            |
| ● Non-Routine Events          | ● Event Follow-up         | ● RAD Transport       |                            |
|                               | ● PI Verification         | ● RAD Environmental   |                            |

# Key Aspects of Baseline Inspection Program

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- 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 publically accessible

# Examples of Baseline Inspections

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- 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

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

# Significance Threshold

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## 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

## 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

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- 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



# Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Degraded Cornerstone	Unacceptable Performance
 <p>Increasing Safety Significance</p> <p>Increasing NRC Inspection Efforts</p> <p>Increasing NRC/Licensee Management Involvement</p> <p>Increasing Regulatory Actions</p>				

# National Summary

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## 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 Of Plant Performance - 102 Plants End of First Quarter Calendar Year 2001

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Licensee Response	83
Regulatory Response	15
Degraded Cornerstone	3
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0

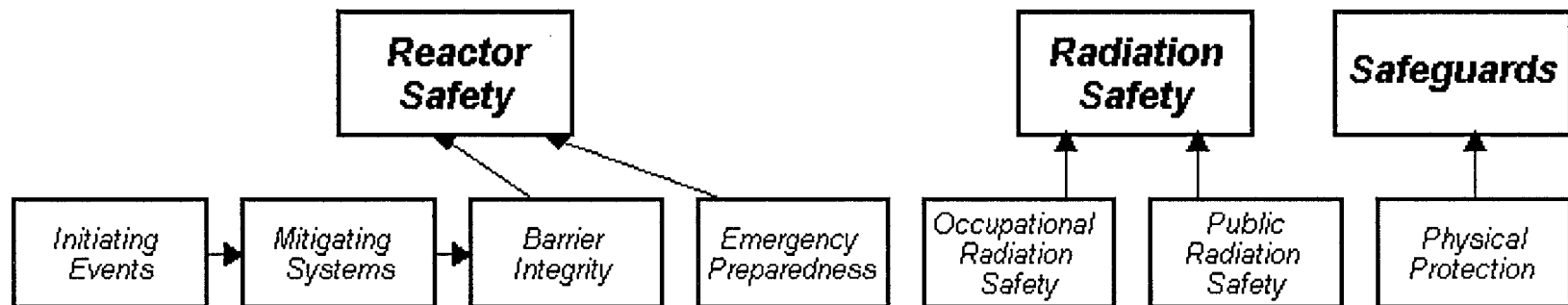
# Oyster Creek Annual Assessment

- 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 require no additional NRC oversight (Green)
- NRC Plans to conduct baseline inspections

# Oyster Creek Annual Assessment

- Potential adverse trend identified with Problem Identification and Resolution
  - Insufficient rigor in the identification of some adverse conditions
  - Insufficient rigor in developing corrective actions
- AmerGen has also identified and initiated corrective actions for these areas

# Oyster Creek 1Q/2001 Performance Summary



## 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 (T)	Reactor Coolant System Leakage (G)	ERD Drill Participation (G)			Personnel Screening Program (G)
Unplanned Power Changes (G)	Heat Removal System Unavailability (T)		Alert and Notification System (G)			FED/Personnel Reliability Program (G)
	Residual Heat Removal System Unavailability (G)					
	Safety System Functional Failures (G)					

Initiating  
Events



Mitigating  
Systems



Barrier  
Integrity

Emergency  
Preparedness

Occupational  
Radiation  
Safety

Public  
Radiation  
Safety

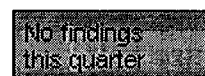
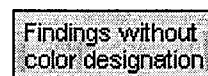
Physical  
Protection

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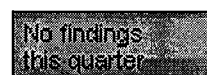
**Most Significant Inspection Findings**

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1Q/2001



4Q/2000



3Q/2000



2Q/2000



Miscellaneous  
findings

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**Additional Inspection & Assessment Information**

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**☒ Assessment Reports/Inspection Plans:**

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

**☒ List of Inspection Reports**

# NRC Representatives

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- John Rogge, Chief Reactor Projects Branch
  - (jfr@nrc.gov (610) 337-5146)
- Neil Perry, Senior Project Engineer
  - (nsp@nrc.gov (610) 337-5225)
- Laura Dudes, Senior Resident Inspector
  - (lad@nrc.gov (609) 693-0702)
- Thomas Hipschman, Resident Inspector
  - (trh@nrc.gov (609) 693-0702)
- Jeffrey Herrera, Project Engineer
  - (jxh4@nrc.gov (610) 337-5399)



# Reactor Oversight Process NRC Web site

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

Documentation also available via ADAMS or by  
contacting the PDR at 1-800-397-4209



**June 20, 2001**  
**Nuclear Regulatory Commission End of Cycle Review**  
**Attendance Sheet**

DAVID L. McMILLAN (TRNC DEPT)  
ERNEST J. HARKNESS (PLANT MANAGER)  
WILLIAM V. STEWART (REGULATORY ASSURANCE)  
Ron DeGregorio Site VP

John Rogge Branch Chief NRC  
Laura Rudes Senior Resident Inspector NRC  
Jeffery Herrera Reactor Engineer NRC



June 20, 2001  
Nuclear Regulatory Commission End of Cycle Review

Attendance Sheet

Johns Winton	Dover Twp	OEM	
PAUL DAley	Dover Twp.	OEM	
Rebecca Hendricks	LEHT	newspaper	Press of Atlantic City x
ROD STERLING	MAYOR	LACEY Twp	
Rich Pinney	New Jersey	DEP	
VINOD AGGARWAL	Oyster Creek	Engineering	
DARRYI LEQUIA	Oyster Creek	Site Support	
Karen Sudol	Stafford	APP	x
Richard Ewart	Lacey Twp	AmerGen Security Dept.	
Debra L Plane	AmerGen	Sr. Communications Rep	
David W Harsen	AMERGEN	EP	



**June 20, 2001**  
**Nuclear Regulatory Commission End of Cycle Review**  
**Attendance Sheet**

JEROME S. RENNER - NTSP - OEM

TIMOTHY W. KEENAN - NTSP - OEM

Steve Healey - Ocean County Sheriff - OEM

MICHAEL MASSARO - EXELON - WORK MANAGEMENT DIR.

George Vanderheyden - V.P. Operations Support - Exelon Nuclear

BOB TILTON - MGR PLANT SUPPORT - AMERGEN

GEORGE ROMBOLD - MANAGER LICENSING - EXELON NUCLEAR

John Rogers SR Licensing Engineer - OC