

# **ANNUAL ASSESSMENT MEETING**



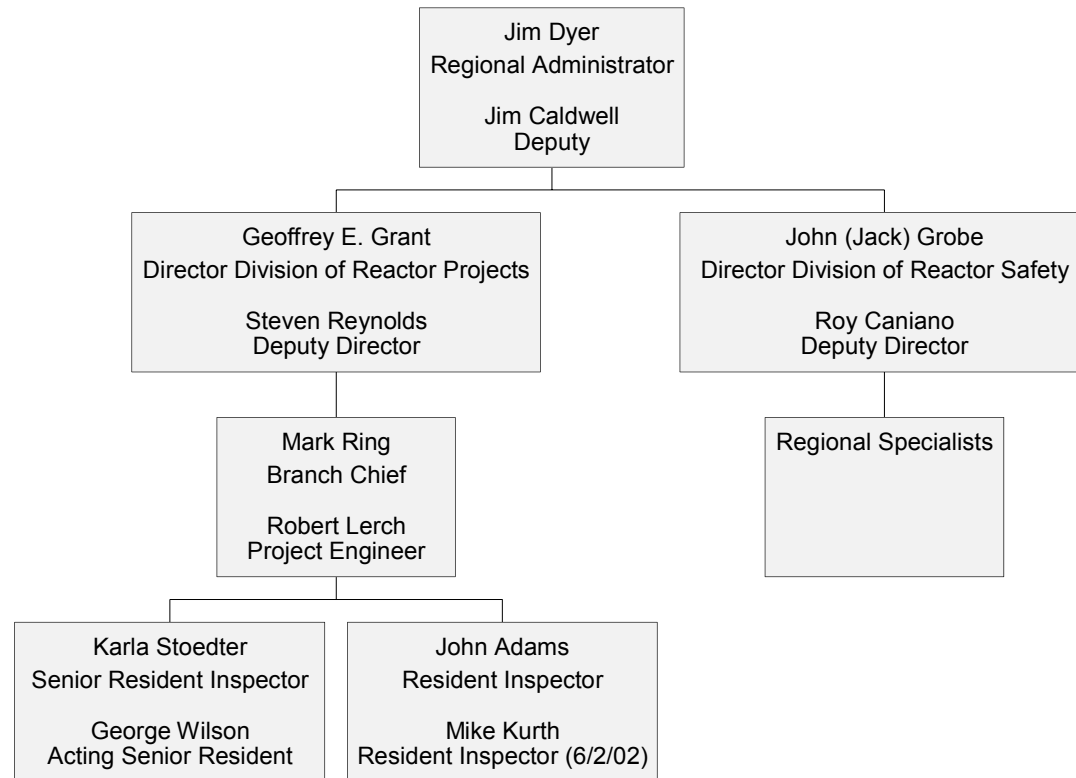
**Nuclear Regulatory Commission**

# Agenda

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- Introduction
- Review of Reactor Oversight Process
- Discussion of Plant Performance Results
- Licensee Response and Remarks
- NRC Closing Remarks
- Meeting with the Licensee adjourned
- NRC available to address questions from the public

# Region III Organization



# NRC Representatives

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- Mark A. Ring, Chief, Projects Branch
  - (mar@nrc.gov (630) 829-9703)
- Karla Stoedter, Senior Resident Inspector
  - (kkb@nrc.gov (309) 654-2227)
- George Wilson, Acting SRI until 5/4
  - (gaw1@nrc.gov (309) 654-2227)
- John Adams, Resident Inspector (departs 4/6)
  - (jta@nrc.gov (309) 654-2227)
- Mike Kurth, Resident Inspector (arrives 6/2)
  - (mfk@nrc.gov (309) 654-2227)

# Reference Sources

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## 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)

# 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 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

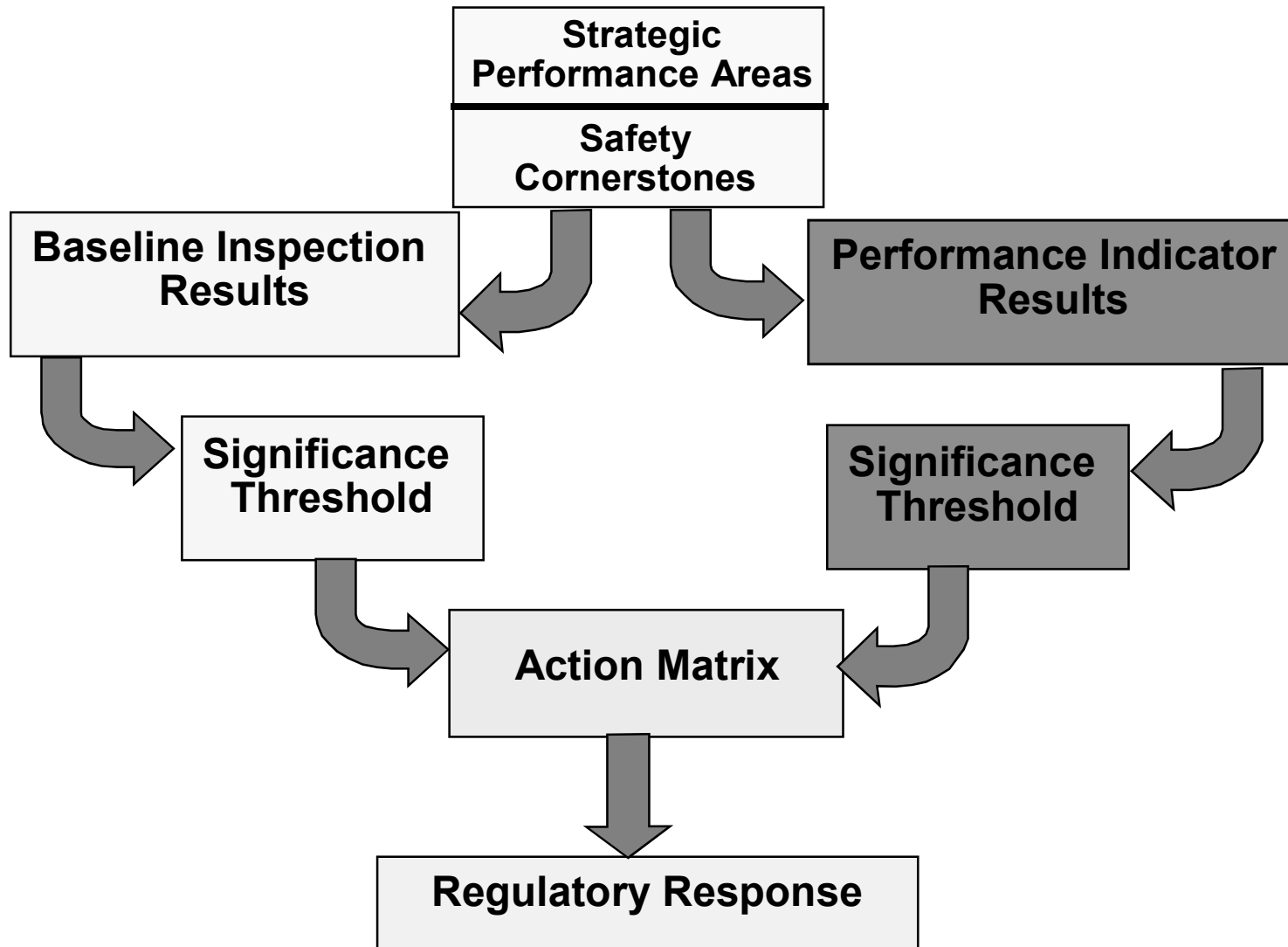
# NRC Oversight Activities

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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

# CROSS-CUTTING AREAS

MAY AFFECT ALL CORNERSTONES

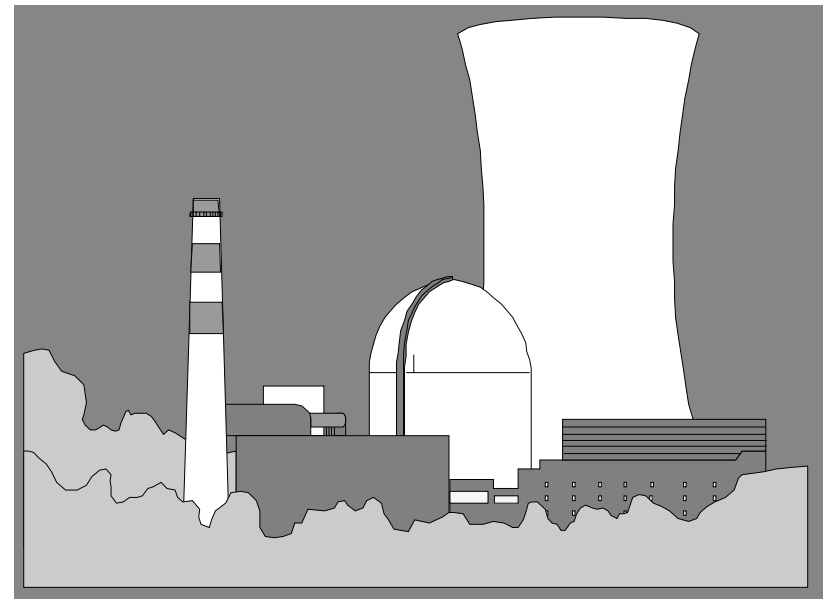
- PROBLEM IDENTIFICATION & RESOLUTION
- HUMAN PERFORMANCE
- SAFETY CONSCIOUS WORK ENVIRONMENT

# 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



# Key Aspects of Baseline Inspection Program

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- Conducted at all plants
- Objective evidence of safety in all cornerstones
- Emphasizes safety significant systems, components, activities, and events
- Monitors licensee effectiveness in finding and fixing safety issues
- Standardized inspection report format to describe significant findings and non-compliance
- Inspection reports are publicly 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
- Plant security
- Controls for radiation releases
- Worker radiation protection

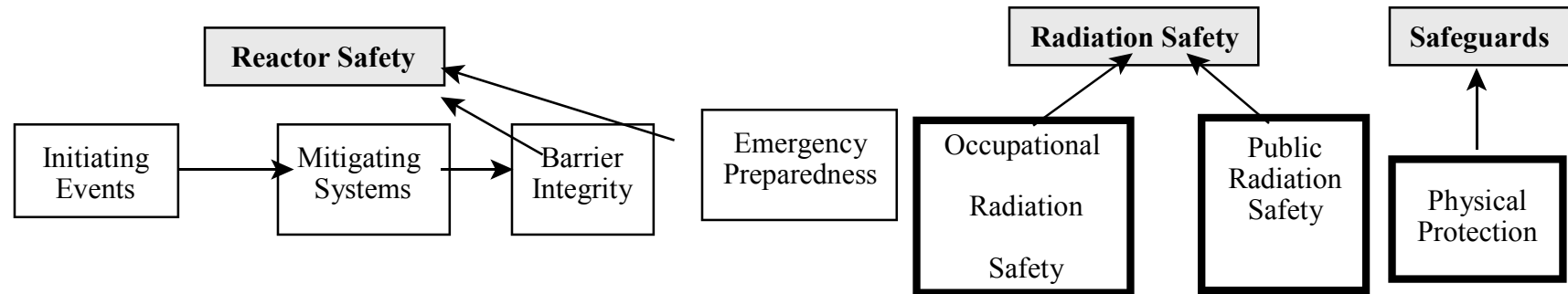
# Examples of Baseline Inspections

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- Equipment Alignment - ~ 70 hrs/yr
- Annual Fire Protection - ~ 35 hrs/yr
- Triennial Fire Protection - ~200 hrs every 3 yrs
- Operator Response - ~ 125 hrs/yr
- Plant security - ~40 hours/yr
- Emergency preparedness - ~60 hrs/yr
- Rad release controls - ~100 hrs every 2 years
- Worker radiation protection - ~125 hrs/year
- Corrective action program - 10% every inspection
- Corrective action program - ~200 hr every 2 yrs

# Inspection Areas

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## Inspection Procedures

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- |                               |                           |                       |                            |
|-------------------------------|---------------------------|-----------------------|----------------------------|
| ● 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   |                            |



# Event Follow-up and Supplemental Inspections

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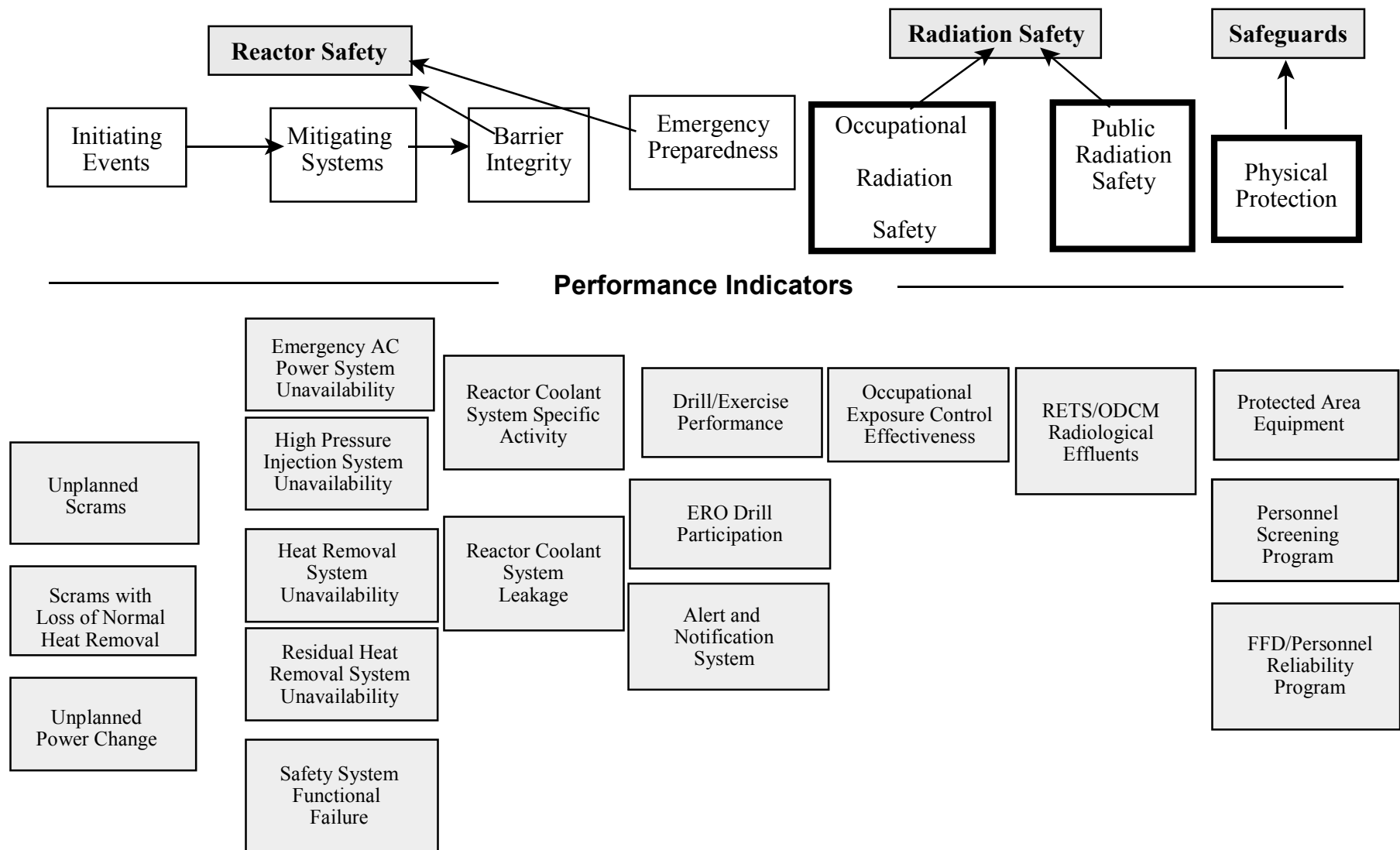
- Review events for significance
- Follow-up significant inspection findings
- Determine causes of performance declines
- Provides for graduated response

# Performance Indicators

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- 18 Performance Indicators
- Covers all cornerstones
- Licensee submits data to NRC quarterly
- Baseline Inspection program verifies accuracy
- Available on Reactor Oversight Program Web site

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



# Significance Threshold

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## Performance Indicators

Green:	Only baseline Inspection
White:	May increase NRC oversight
Yellow:	Requires more NRC oversight
Red:	Requires more NRC oversight

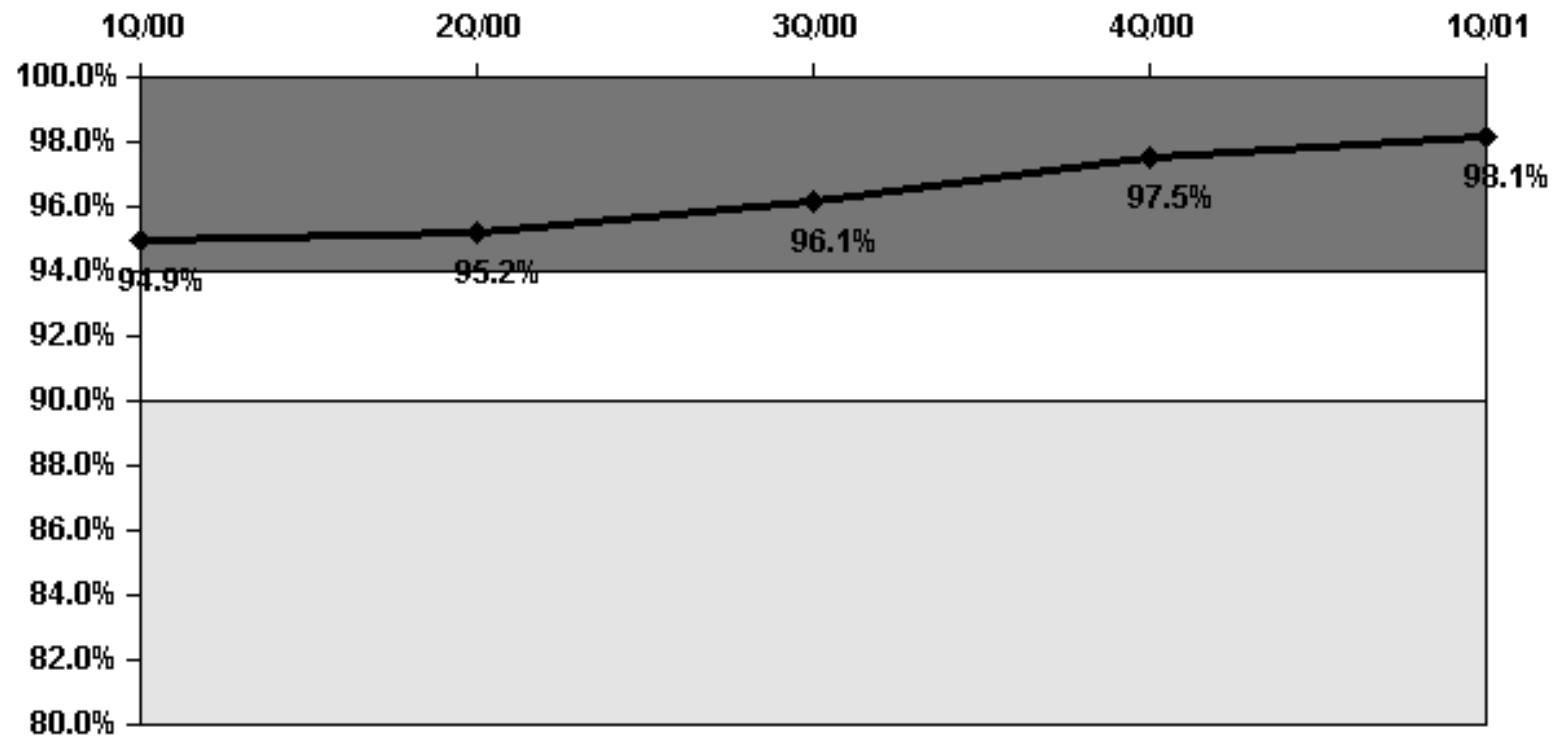
## Inspection Findings

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

# Performance Indicator

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## Alert & Notification System



Thresholds: White < 94.0% Yellow < 90.0%


# 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 action increases
- Plant specific assessment letters
- Information on NRC public web site

# Action Matrix Concept

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

**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
RESULTS		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
RESPONSE	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 (f) Letter - CAL/Order	Order to Modify, Suspend, or Revoke Licensed Activities
COMMUNICATION	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 ----->					



# National Summary of Plant Performance -103 Plants End of Calendar Year 2001

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Licensee Response	74
Regulatory Response	24
Degraded Cornerstone	4
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0

# National Summary

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## Fourth Quarter Calendar Year 2001 Performance Indicator Results

**Green: 1834**

**White: 8**

**Yellow: 0**

**Red: 0**

## Total Inspection Findings (April 2001 - December 2001)

**Green: 660**

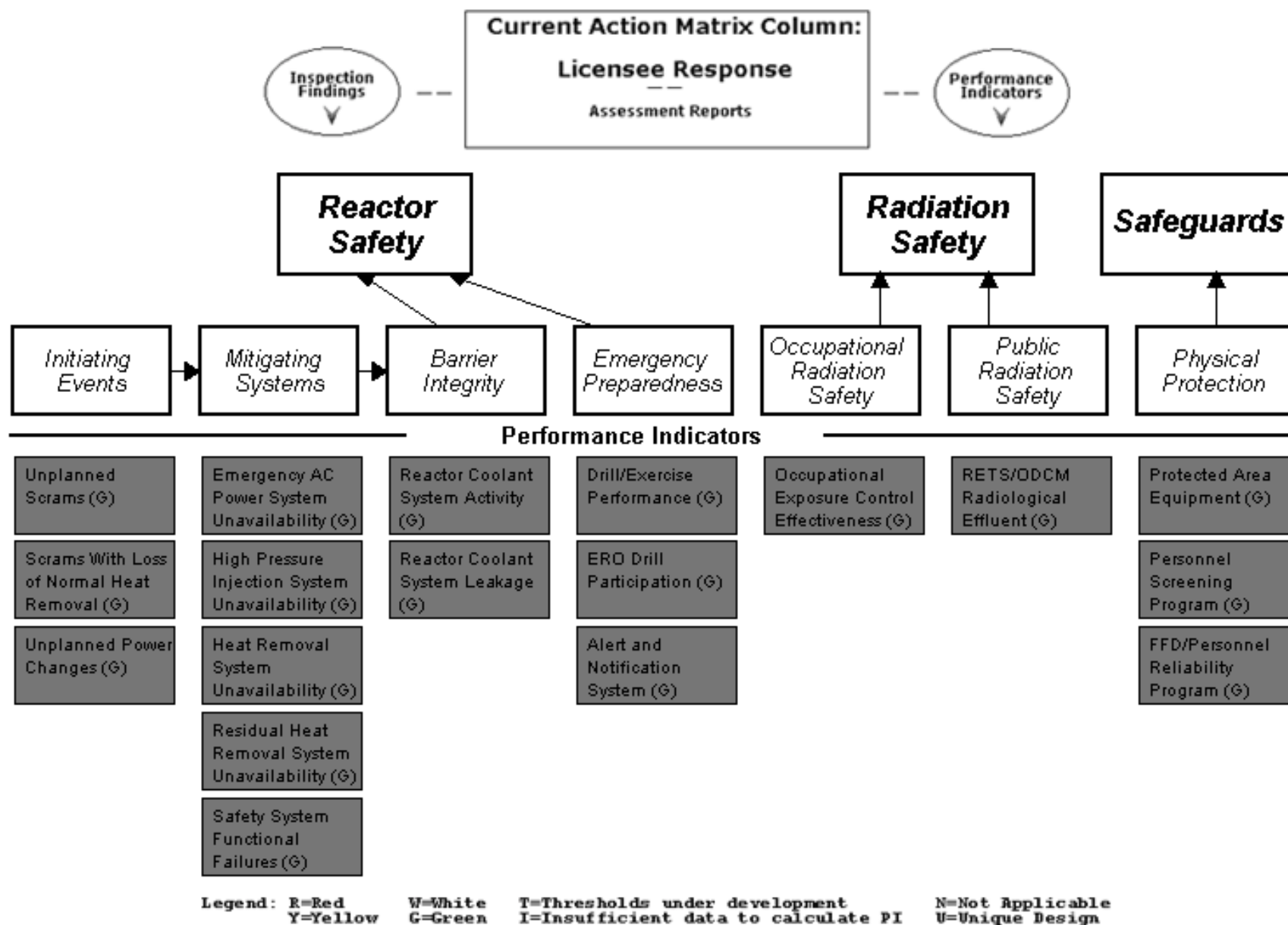
**White: 23**

**Yellow: 2**

**Red: 0**

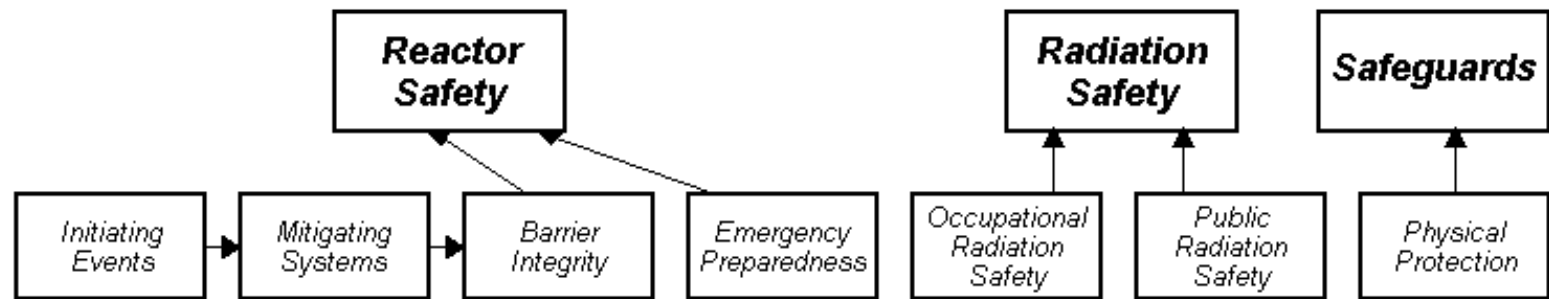
# Quad Cities 1

## 4th Qtr 2001 - Performance Summary



# Quad Cities 1

## 4th Qtr 2001 - Performance Summary



### Most Significant Inspection Findings

4Q/2001	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/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
2Q/2001	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	Findings without color designation
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
Miscellaneous findings							

### Additional Inspection & Assessment Information

#### ◆ Assessment Reports/Inspection Plans:

4Q/2001  
3Q/2001  
2Q/2001  
1Q/2001

#### ◆ Cross Reference Of Assessment Reports

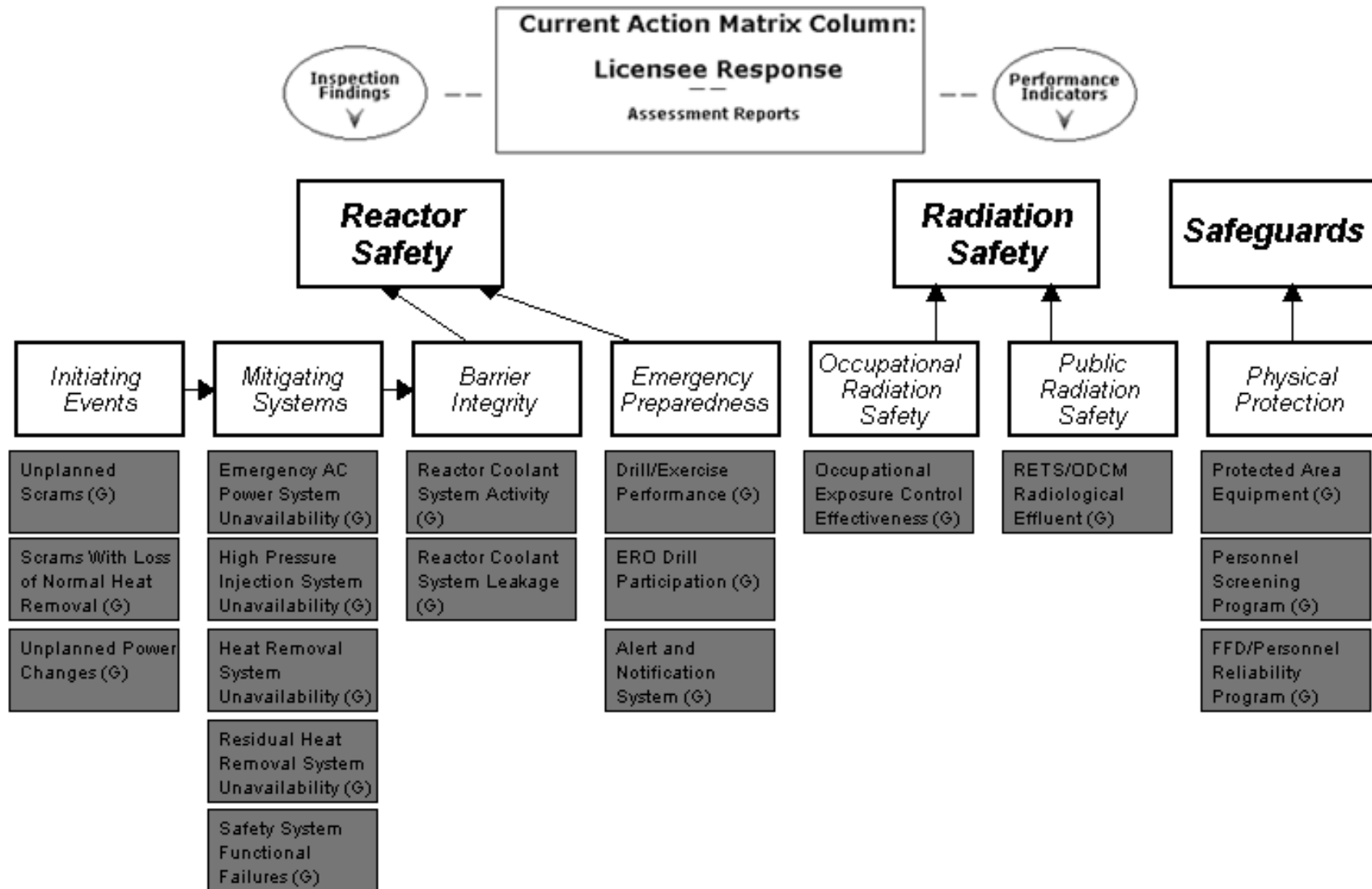
#### ◆ List of Inspection Reports

#### ◆ List of Assessment Letters/Inspection Plans

*Last Modified: March 1, 2002*

# Quad Cities 2

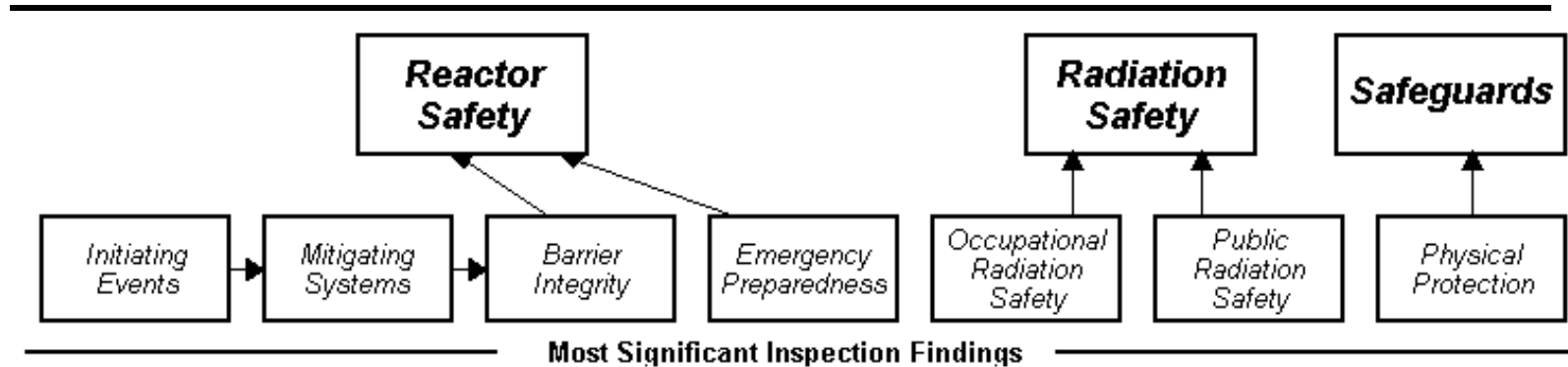
## 4th Qtr 2001 - Performance Summary



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

# Quad Cities 2

## 4th Qtr 2001 - Performance Summary



4Q/2001	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/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
2Q/2001	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	Findings without color designation
1Q/2001	G	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:

4Q/2001  
3Q/2001  
2Q/2001  
1Q/2001

#### ◆ List of Inspection Reports

#### ◆ List of Assessment Letters/Inspection Plans

*Last Modified: March 1, 2002*

#### ◆ Cross Reference Of Assessment Reports

# **QUAD CITIES INSPECTION RESULTS**

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## **FOUR GREEN FINDINGS (INITIATING EVENTS AND MITIGATING SYSTEMS CORNERSTONES):**

**TRANSFORMER DEGRADATION  
SAFETY EVALUATION FOR RAINBOW PUMPS  
HPCI NOT ADEQUATELY FILLED  
BATTERY ROOM VENTILATION FAILURES**

## **FOUR NO COLOR FINDINGS (CROSS CUTTING ISSUES NOT READILY ASSESSED FOR SIGNIFICANCE):**

**PROBLEM IDENTIFICATION & RESOLUTION  
LICENSED OPERATOR EVALUATION**

# **QUAD CITIES INSPECTION RESULTS (CONTINUED)**

## **PERFORMANCE INDICATOR REPORTING:**

**ONE NO COLOR FINDING FOR INACCURATE PI REPORTING**

**ONE VIOLATION FOR INACCURATE PI REPORTING**

## **INSPECTION HOURS:**

**ABOUT 2000 TOTAL INSPECTION HOURS**

## **MAJOR INSPECTION ACTIVITIES:**

**2 SUPPLEMENTAL INSPECTIONS**

**MODIFICATIONS & SAFETY EVALUATIONS**

**PROBLEM IDENTIFICATION INSPECTION**



# Quad Cities Annual Assessment (April 1 -Dec 31, 2001)

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- Operated safely
- Fully met all cornerstone objectives
- Licensee Response Band of Action Matrix
  - No inspection findings greater than very low safety significance (Green)
  - All performance indicators Green
  - Supplemental inspection results acceptable
- NRC Plans to conduct baseline inspections

# NRC Response To 9/11

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- Activated NRC Response Centers
- Closely Coordinated Response With:
  - Our Licensees
  - FBI
  - Military, State, & Local Authorities
  - Law Enforcement
  - Intelligence Communities
- Issued Security Advisories
  - Increased Patrols
  - Augmented Security Capabilities
  - Added Barriers and Posts
  - More Limited Access
  - Enhanced Security Awareness
- Issued Order on Security
- NRC Monitored Enhanced Security