

# **NRC CY2003 Annual Assessment Meeting**

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## **Oconee Nuclear Station**



Seneca, South Carolina

April 13, 2004

# Purpose of Today's Meeting

- A public forum for discussion of the licensee's performance
- NRC will address the licensee performance issues identified in the annual assessment letter
- Licensee will be given the opportunity to respond to the information in the letter and inform the NRC of new or existing programs to maintain or improve their performance

# Agenda

- Introduction
- Review of Reactor Oversight Process
- National Summary of Plant Performance
- Discussion of Plant Performance Results
- Licensee Response and Remarks
- NRC Closing Remarks
- Break
- NRC available to address public questions

# Region II Organization

Luis Reyes  
Regional Administrator

Loren Plisco  
Deputy Regional Administrator

Victor McCree  
Director Division of Reactor Projects

Len Wert  
Deputy Director

Robert Haag  
Branch Chief

Oconee  
Resident Inspectors  
Mel Shannon  
George Hutto  
Eric Riggs

Project Engineers  
Robert Carroll  
Michael Pribish

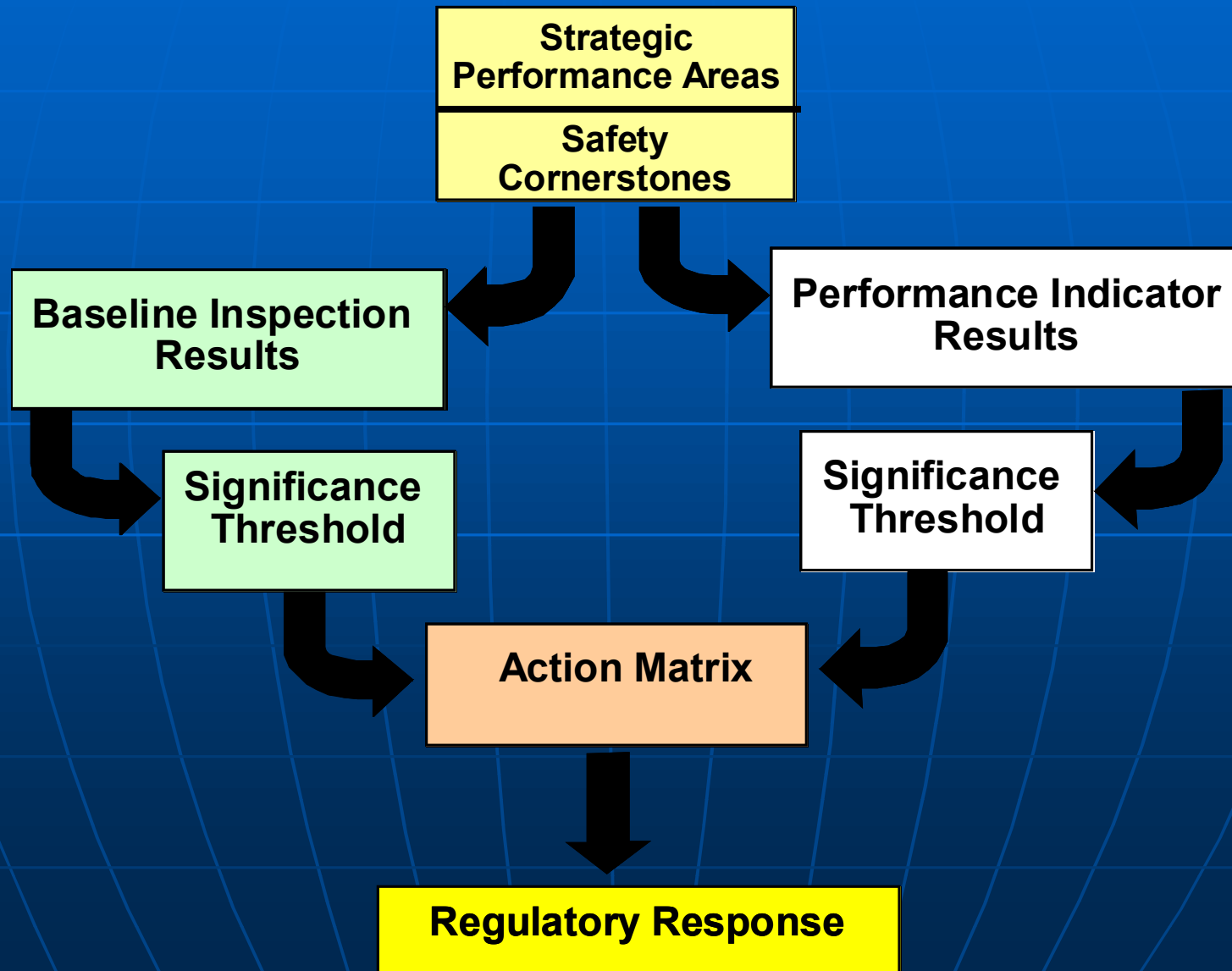
Charles Casto  
Director Division of Reactor Safety

Harold Christensen  
Deputy Director

# 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

# Reactor Oversight Process



# Examples of Baseline Inspections

- Equipment Alignment ~92 hrs/yr
- Triennial Fire Protection ~200 hrs every 3 yrs
- Operator Response ~125 hrs/yr
- Emergency Preparedness ~80 hrs/yr
- Rad Release Controls ~100 hrs every 2 yrs
- Worker Radiation Protection ~100 hrs/yr
- Corrective Action Program ~200 hrs every 2 yrs
- Corrective Action Case Reviews ~60 hrs/yr

# Oconee Nuclear Station

## 5100 Hours of Inspection Related Activities

(Jan 1 - Dec 31, 2003)

- Supplemental Inspection (95001 – HPI cable)
- Special Inspection (main steam ADVs)
- Engineering Inspections
- Emergency Preparedness Inspection
- Initial Operator Exam and Requalification Inspection
- Reactor Vessel Head/Steam Generator Replacement and Lower Head Inspections
- Radiation Protection and Security Inspections
- Problem Identification and Resolution Inspections
- ISFSI Inspection



# Significance Threshold

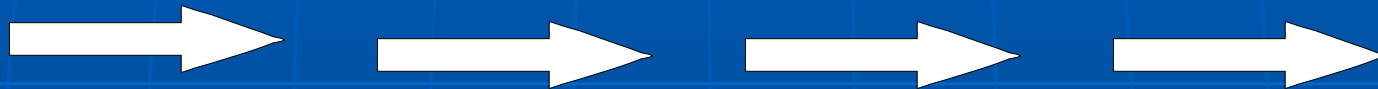
## Performance Indicators

- 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

# Action Matrix Concept



**Increasing Safety Significance**

**Increasing NRC Inspection Efforts**

**Increasing NRC/Licensee Management Involvement**

**Increasing Regulatory Actions**

# National Summary of Plant Performance

Status at End of CY 2003

Licensee Response	75
Regulatory Response	22
Degraded Cornerstone	2
Multiple/Repetitive Degraded Cornerstone	3
Unacceptable	0
<hr/> Total	<hr/> 102*

\* Davis-Besse is under a special restart inspection process (IMC 0350)

# Oconee Nuclear Station

## Assessment Results For CY 2003

- All Performance Indicators Were Green Requiring No Additional NRC Inspection
- One White Inspection Finding
  - Inadequate SSF Pressurizer Heater Capacity:  
Affected All Three units
- Two White Inspection Findings Carried Over From CY2002
  - Containment Integrity During Reduced Inventory:  
Unit 1 for 1<sup>st</sup> Qtr of 2003
  - Degraded Connector for HPI Pump Emergency Power Supply Cable: Unit 3 for first three Qtr of 2003

# Oconee Nuclear Station

## Assessment Results

- Unit 1 – Regulatory Response Column of Action Matrix for 1<sup>st</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> Qtr of 2003
- Unit 2 – Regulatory Response Column of Action Matrix for 3<sup>rd</sup> & 4<sup>th</sup> Qtr of 2003
- Unit 3 – Regulatory Response Column of Action Matrix for 1<sup>st</sup>, 2<sup>nd</sup>, & 4<sup>th</sup> Qtr of 2003 and Degraded Cornerstone Column 3<sup>rd</sup> Qtr of 2003
  - Degraded Cornerstone due to Two White Mitigating Systems Findings Occurring During the Same Quarter: SSF Pressurizer Heater Capacity and HPI Pump Emergency Power Supply Cable Connector

# Application of Action Matrix

Cornerstone Issue	1 <sup>st</sup> Qtr03	2 <sup>nd</sup> Qtr03	3 <sup>rd</sup> Qtr03	4 <sup>th</sup> Qtr03
	U1-RgRsp	U1-LiRsp	U1-RgRsp	U1RgRsp
Barrier Integrity White Finding - Unit 1 Reduced Inventory AOP Containment Integrity (cont'd from 2 <sup>nd</sup> Qtr02)	Unit 1 Only			
	U2-LiRsp	U2-LiRsp	U2-RgRsp	U2-RgRsp
Mitigating Systems White Finding – Units 1, 2, 3...Inadequate SSF PZR Heater Capacity (identified 3 <sup>rd</sup> Qtr03)			Units 1,2,3	Units 1,2,3
	U3-RgRsp	U3-RgRsp	U3-DCstn	U3-RgRsp
Mitigating Systems White Finding – Unit 3 HPI Pump Aux Swgr Emergency Power Cable (cont'd from 4 <sup>th</sup> Qtr02)	Unit 3 only	Unit 3 only	Unit 3 only	

# Oconee Nuclear Station Annual Assessment Summary

(Jan 1 - Dec 31, 2003)

- Duke Energy operated Oconee Nuclear Station in a manner that preserved public health and safety
- All cornerstone objectives were met

# Oconee Nuclear Station Planned Inspection Activities

(Jan 1 - Dec 31, 2004)

- Baseline Inspections
- Supplemental Inspection (95002 - Unit 3 Degraded Cornerstone Performance 3rd Qtr03)
- Reactor Containment Sump Blockage Inspection
- Spent Fuel Material Control and Accountability Inspection
- Reactor Vessel Head/Steam Generator Replacement and Lower Head Inspections
- ISFSI Inspection



# Licensee Response and Remarks

# Contacting the NRC

- Report an emergency
  - ▶ (301) 816-5100 (call collect)
- Report a safety concern:
  - ▶ (800) 695-7403
  - ▶ Allegation@nrc.gov
- General information or questions
  - ▶ [www.nrc.gov](http://www.nrc.gov)
  - ▶ Select “What We Do” for Public Affairs

# Reference Sources

- Reactor Oversight Process

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

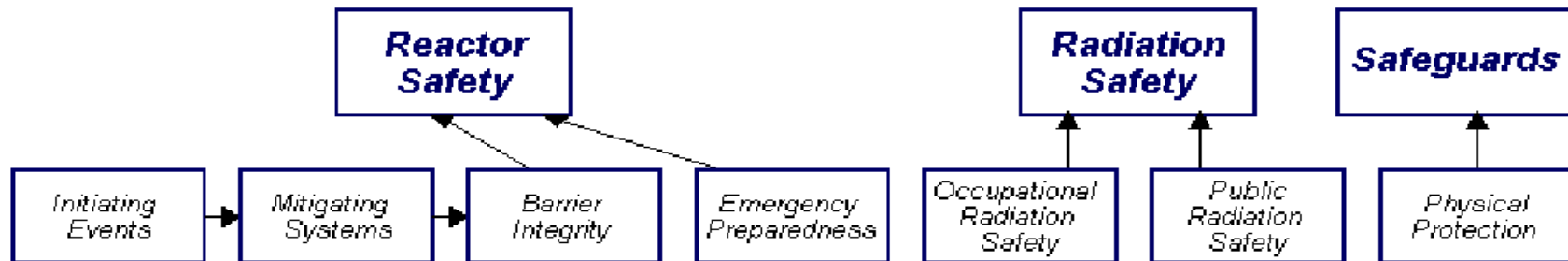
- Public Electronic Reading Room

- ▶ <http://www.nrc.gov/reading-rm.html>

- Public Document Room

- ▶ 1-800-397-4209 (Toll Free)

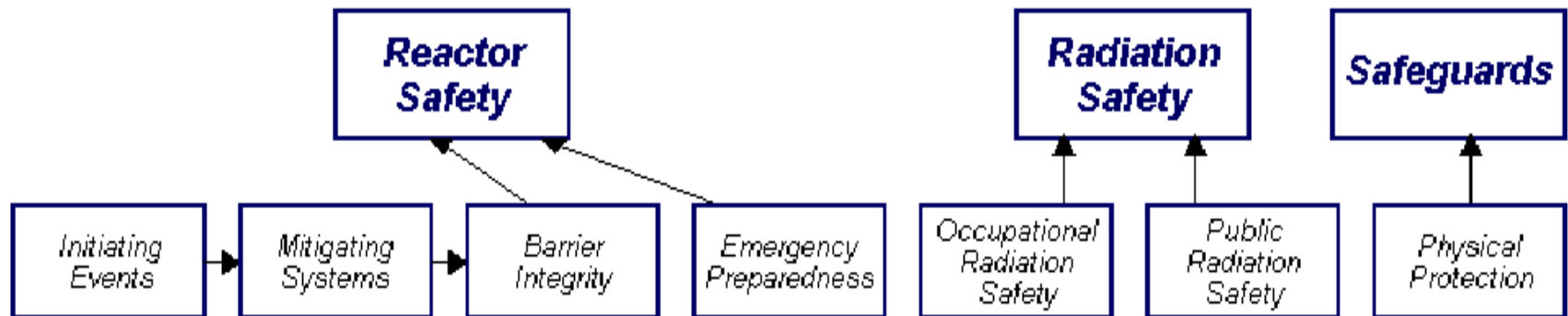
# Oconee 1 2003 Performance Summary (4<sup>th</sup> Quarter)



## Performance Indicators

Unplanned Sorams (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)
Sorams 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)					

# Oconee 1 2003 Performance Summary

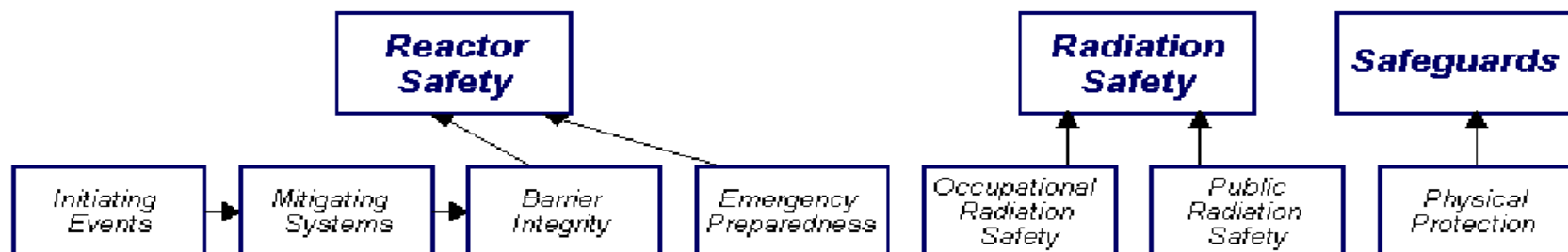


## Most Significant Inspection Findings

Quarter	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
4Q/2003	No findings this quarter	W (1)	G	No findings this quarter	No findings this quarter	G	No findings this quarter
3Q/2003	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
2Q/2003	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2003	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

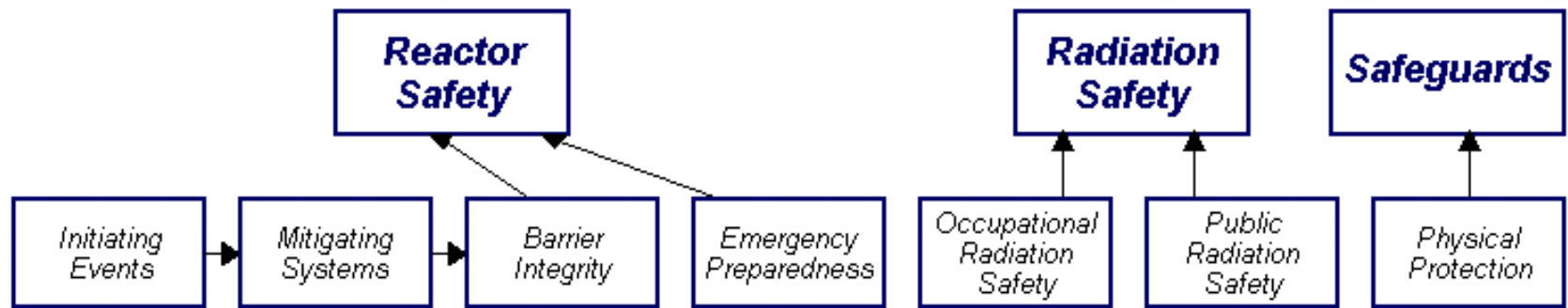
# Oconee 2 2003 Performance Summary (4<sup>th</sup> Quarter)



## 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)
Scrums 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)					

# Oconee 2 2003 Performance Summary

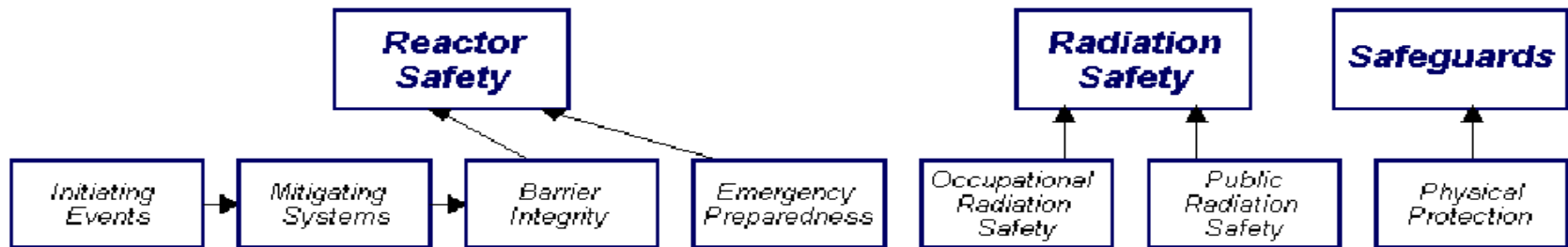


## Most Significant Inspection Findings

Quarter	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
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2Q/2003	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2003	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

# Oconee 3 2003 Performance Summary (4<sup>th</sup> Quarter)

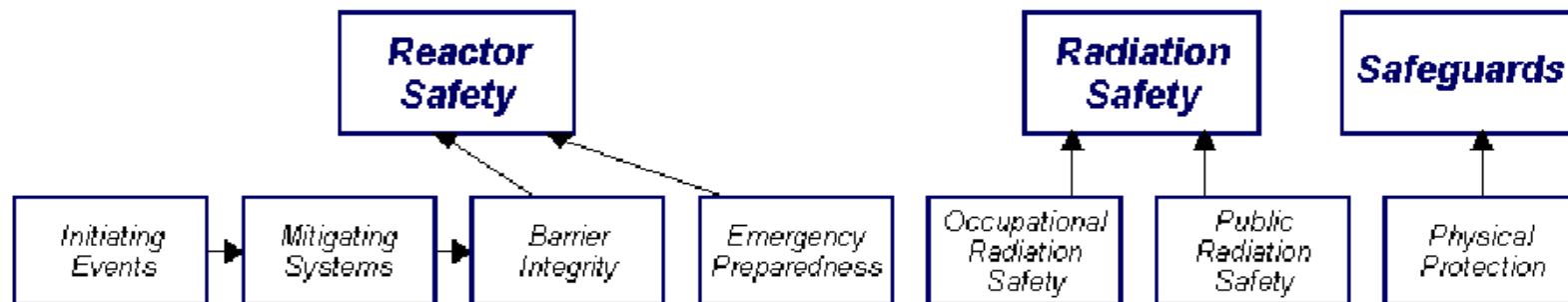


## Performance Indicators

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)					



# Oconee 3 2003 Performance Summary



## Most Significant Inspection Findings

Quarter	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
4Q/2003	No findings this quarter	W (1)	No findings this quarter	No findings this quarter	No findings this quarter	G	No findings this quarter
3Q/2003	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
2Q/2003	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2003	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