

# NRC Annual Assessment Meeting For Calvert Cliffs

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Nuclear Regulatory Commission - Region I

Prince Frederick, Maryland

April 20, 2006

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## Purpose of Today's Meeting

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- A public forum for discussion of the licensee's performance
- The NRC will present its assessment of safety performance at Calvert Cliffs during 2005
- Constellation will be given the opportunity to respond and describe new or existing programs to maintain or improve its performance

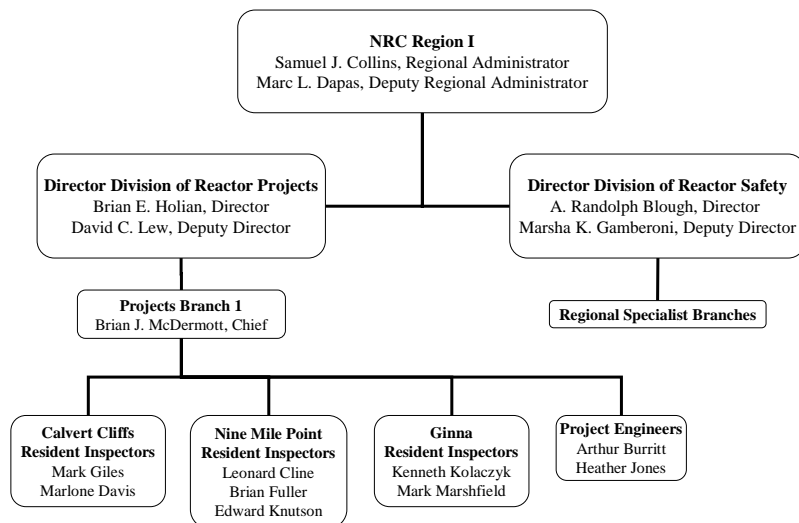
# Agenda

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- 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 I Organization

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## NRC Representatives

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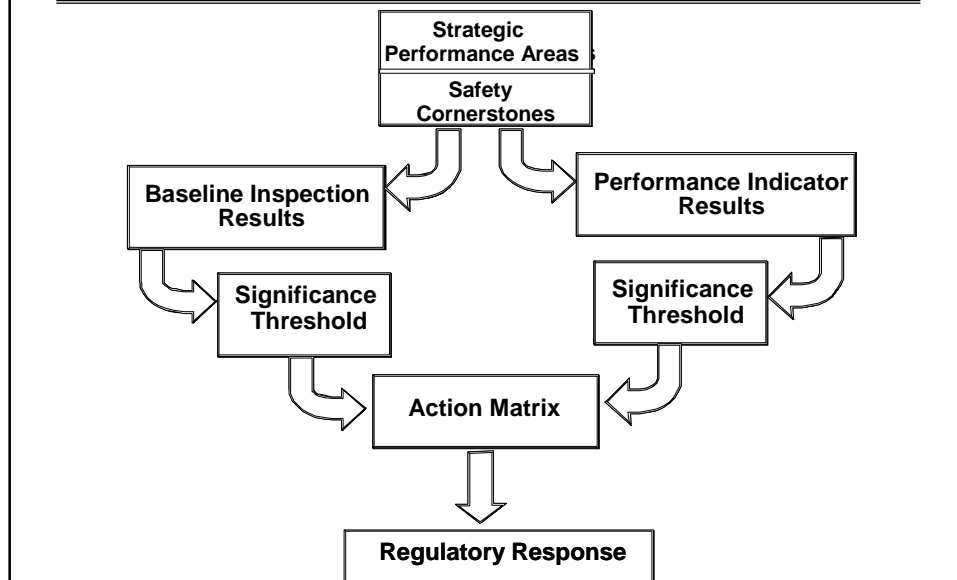
- Brian J. McDermott, Chief, Projects Branch 1, Region I
- Mark A. Giles, Senior Resident Inspector
- Marlene Davis, Resident Inspector

## NRC Performance Goals

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- **Safety:** Ensure protection of the public health and safety and the environment
- **Security:** Ensure the secure use and management of radioactive materials
- **Openness:** Ensure openness in our regulatory process
- **Effectiveness:** Ensure that NRC actions are effective, efficient, realistic, and timely
- **Management:** Ensure excellence in agency management to carry out the NRC's strategic objectives

## Reactor Oversight Process



## Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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- Increasing Safety Significance
- Increasing NRC Inspection Efforts
- Increasing NRC/Licensee Management Involvement
- Increasing Regulatory Actions

## Examples of Baseline Inspections<sup>1</sup>

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- Equipment Alignment ~80 hrs/yr
- Triennial Fire Protection ~200 hrs/3 yrs
- Operator Response ~125 hrs/yr
- Emergency Preparedness ~80 hrs/yr
- Rad Release Controls ~110 hrs/2 yrs
- Engineering Design ~680 hrs/2 yrs
- Corrective Action Program ~250 hrs/2 yrs
- Corrective Action Case Reviews ~60 hrs/yr

<sup>1</sup>Baseline Inspections For A Single Unit Require Approximately ~5000 Hours Per Year

## Significance Threshold

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### Inspection Findings

- Green:** Very low safety significance  
**White:** Low to moderate safety significance  
**Yellow:** Substantial safety significance  
**Red:** High safety significance

### Performance Indicators

- Green:** Baseline Inspection  
**White:** Increased NRC oversight  
**Yellow:** Requires more NRC oversight  
**Red:** Requires more NRC oversight

## National Summary

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<b>Status At End Of</b>	<b>2005</b>	<b>2004</b>
Licensee Response	84	78
Regulatory Response	12	21
Degraded Cornerstone	4	0
Multiple/Repetitive Degraded Cornerstone	3	3
Unacceptable	0	0
<b>Total</b>	<b>103</b>	<b>102*</b>

\* Davis-Besse was in Shutdown with Enhanced Oversight in 2004

## National Summary

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### Total Inspection Findings

<b>Total For Calendar Year</b>	<b>2005</b>	<b>2004</b>
<b>Green</b>	849	778
<b>White</b>	10	11
<b>Yellow</b>	1	0
<b>Red</b>	0	0

### Performance Indicator Results

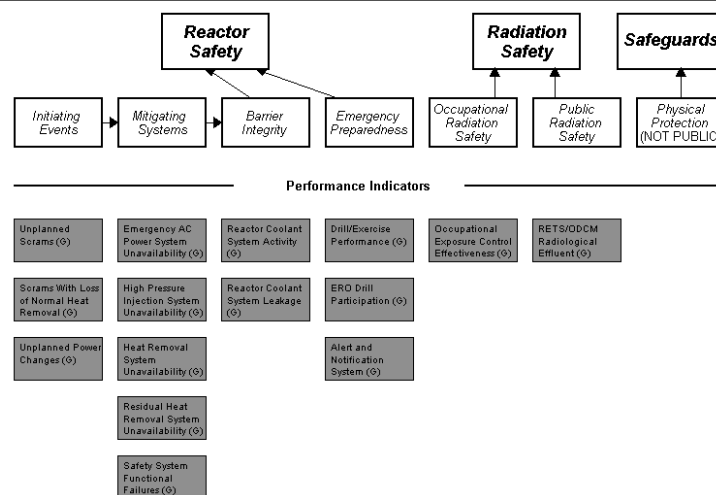
<b>Status At End Of</b>	<b>2005</b>	<b>2004</b>
<b>Green</b>	1850	1834
<b>White</b>	4	6
<b>Yellow</b>	0	0
<b>Red</b>	0	0

# NRC Inspection Activities

January 1, 2005 – December 31, 2005

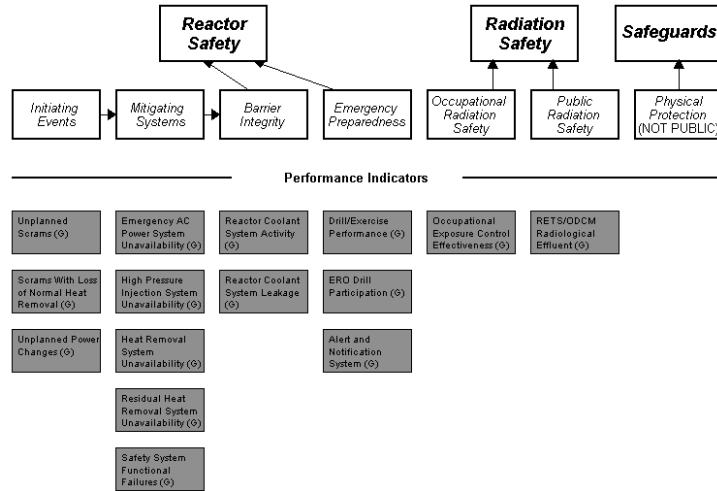
- 5378 hours of inspection related activities
- 2 resident inspectors assigned to the site
- 9 regional specialist inspector visits
- 3 team inspections
  - emergency preparedness
  - licensed operator requalification
  - problem identification and resolution inspection

# Calvert Cliffs 1 Indicators



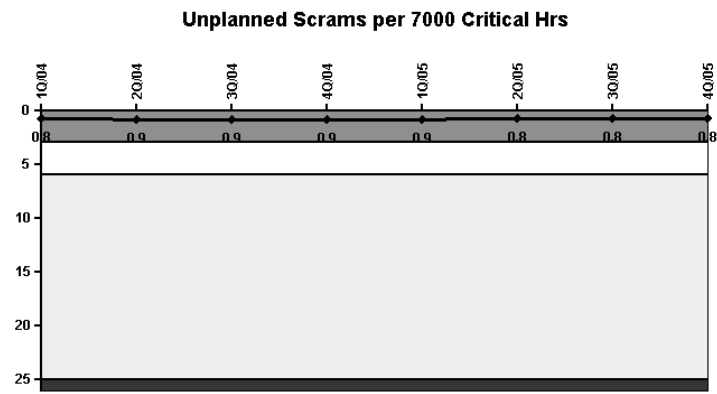
Available On The Web At: <http://www.nrc.gov/reactors/operating/oversight.html>

# Calvert Cliffs 2 Indicators



Available On The Web At: <http://www.nrc.gov/reactors/operating/oversight.html>

# Performance Indicator Example



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

Available On The Web At: <http://www.nrc.gov/reactors/operating/oversight.html>



## Unit 1 Assessment Results

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January 1, 2005 – December 31, 2005

- Operated safely throughout the Assessment Period
- Licensee Response column of the Action Matrix for the last three quarters of 2005
- Inspection Findings
  - 4 findings of very low safety significance (Green)
  - 2 of the 4 findings were common to both units
- NRC will conduct baseline inspections during the remainder of the cycle

## Unit 2 Assessment Results

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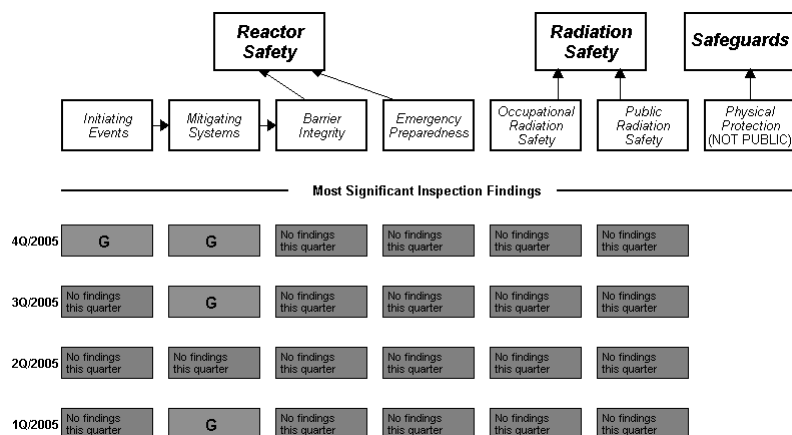
January 1, 2005 – December 31, 2005

- Operated safely throughout the Assessment Period
- Licensee Response column of the Action Matrix last three quarters of 2005, Regulatory Response column in the 1<sup>st</sup> Quarter of 2005
- Inspection Findings
  - 4 findings of very low safety significance (Green)
  - 2 of the 4 findings were common to both units
- NRC will conduct baseline inspections during the remainder of the cycle

## Unit 2 Assessment Results

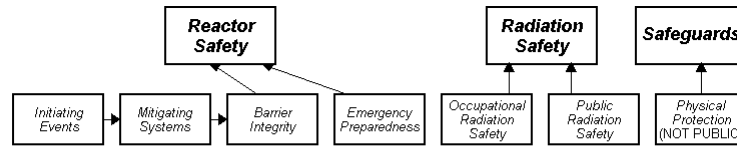
- 1 finding of low to moderate safety significance (White – Issued 2<sup>nd</sup> Quarter 2004)
  - Relay failure causing steam dump valves to fail open following reactor trip
- Supplemental inspection in January 2005 determined Constellation's root cause analysis was complete and corrective actions were appropriately identified
- White finding was not part of Action Matrix characterization after the 1<sup>st</sup> Quarter of 2005

## Calvert Cliffs 1 Findings



Available On The Web At: <http://www.nrc.gov/reactors/operating/oversight.html>

# Calvert Cliffs 2 Findings



Most Significant Inspection Findings

Quarter	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection (NOT PUBLIC)
4Q/2005	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/2005	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/2005	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
1Q/2005	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

Available On The Web At: <http://www.nrc.gov/reactors/operating/oversight.html>

# Licensee Response and Remarks

Calvert Cliffs Nuclear Power Plant  
Constellation Generation Group

## Summary Of NRC Assessment

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- Constellation Operated Calvert Cliffs In A Manner That Preserved Public Health and Safety During 2005
- NRC Will Conduct Baseline Inspections At Calvert Cliffs During 2006

## Contacting the NRC

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

## 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.html>

### **Public Document Room**

1-800-397-4209 (Toll Free)