

# Millstone Station Annual Assessment Meeting

## Reactor Oversight Program Assessment 2004



Nuclear Regulatory Commission - Region 1  
King of Prussia, PA  
March 29, 2005

# 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 for public questions and comments

# Purpose of Today's Meeting

- A public forum for discussion of the Millstone Station's performance
- NRC will address Millstone Station's performance as discussed in the annual assessment letter
- Millstone Station will respond to the information provided and inform the NRC of new or existing programs to maintain or improve their performance

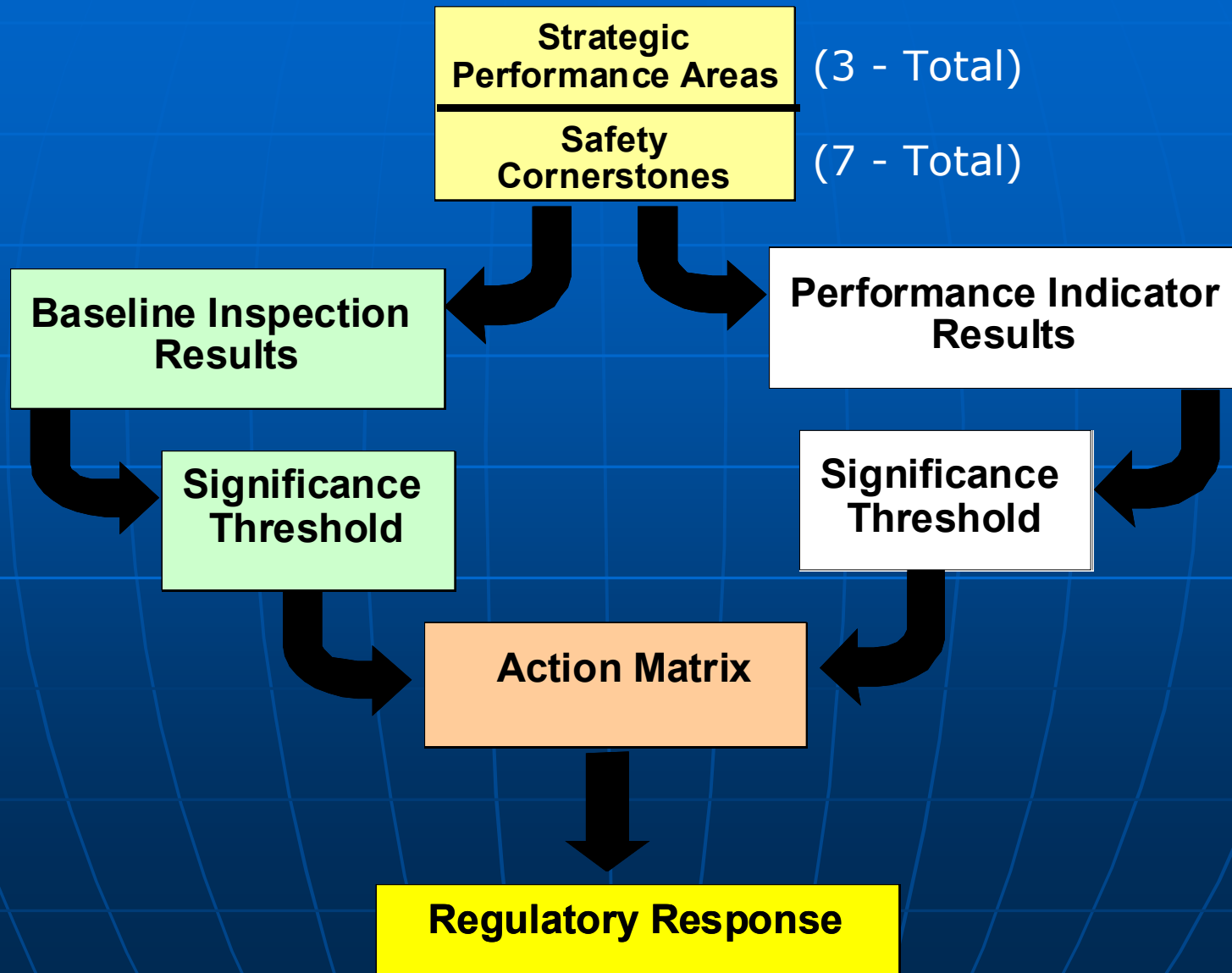
# NRC Representatives

- Randy Blough, Director  
Division of Reactor Projects (DRP)
  - (610) 337-5229
- Paul Krohn, Branch Chief, DRP
  - (610) 337-5120
- Max Schneider, Senior Resident Inspector, DRP
  - (860) 447-3170
- Silas Kennedy, Resident Inspector, DRP
  - (860) 447-3170
- Kevin Mangan, Resident Inspector, DRP
  - (860) 447-3170

# NRC Performance Goals

- Safety: Ensure protection of 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 objective

# Reactor Oversight Process



# REGULATORY FRAMEWORK

**NRC's Overall  
Safety Mission**

**PUBLIC HEALTH AND SAFETY  
AS A RESULT OF CIVILIAN  
NUCLEAR REACTOR  
OPERATION**

**Strategic  
Performance  
Areas**

**REACTOR  
SAFETY**

**RADIATION  
SAFETY**

**SAFEGUARDS**

**Cornerstones**

**INITIATING  
EVENTS**

**MITIGATING  
SYSTEMS**

**BARRIER  
INTEGRITY**

**EMERGENCY  
PREPAREDNESS**

**PUBLIC  
RADIATION  
SAFETY**

**OCCUPATIONAL  
RADIATION  
SAFETY**

**PHYSICAL  
PROTECTION**

**HUMAN  
PERFORMANCE**

**SAFETY  
CONSCIOUS  
WORK ENVIRONMENT**

**PROBLEM  
IDENTIFICATION  
AND RESOLUTION**

**Cross-Cutting Areas**

## 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 Reviews ~60 hrs/yr
- Safety System Design ~420 hrs every 2 yrs



# Significance Threshold

## Performance Indicators

<b>Green:</b>	Only Baseline Inspection
<b>White:</b>	May increase NRC oversight
<b>Yellow:</b>	Requires more NRC oversight
<b>Red:</b>	Requires more NRC oversight

## Inspection Findings

<b>Green:</b>	Very low safety issue
<b>White:</b>	Low to moderate safety issue
<b>Yellow:</b>	Substantial safety issue
<b>Red:</b>	High safety issue

# Action Matrix Concept



**Increasing Safety Significance**

**Increasing NRC Inspection Effort**

**Increasing NRC/Licensee Management Involvement**

**Increasing Regulatory Actions**

# National Summary of Plant Performance

## Status at End of 2004

Licensee Response	78
Regulatory Response	21
Degraded Cornerstone	0
Multiple/Repetitive Degraded Cornerstones	3
Unacceptable	0
Total	102*

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\* One plant, Davis-Besse, not included in totals, is in a separate assessment process.

# National Summary

- Performance Indicator Results (at end of 2004)

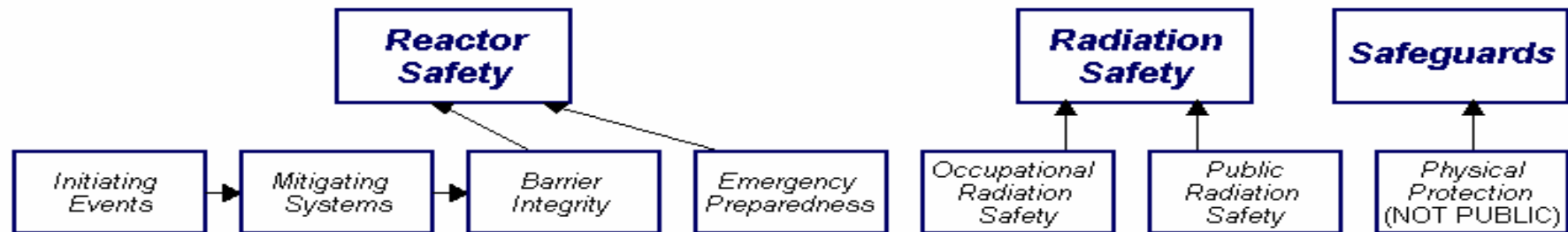
▶ Green	1834
▶ White	6
▶ Yellow	0
▶ Red	0

- Total Inspection Findings (2004)

▶ Green	778
▶ White	11
▶ Yellow	0
▶ Red	0

# Millstone Performance Indicators

[www.nrc.gov/NRR/OVERSIGHT/ASSESS](http://www.nrc.gov/NRR/OVERSIGHT/ASSESS) Then click on “Millstone 2” or “Millstone 3”



## 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)
Scrams With Loss of Normal Heat Removal (G)	High Pressure Injection System Unavailability (G)	Reactor Coolant System Leakage (G)	ERO Drill Participation (G)		
Unplanned Power Changes (G)	Heat Removal System Unavailability (G)		Alert and Notification System (G)		
	Residual Heat Removal System Unavailability (G)				
	Safety System Functional Failures (G)				

# Millstone Inspection Activities

(Jan 1 - Dec 31, 2004)

- Hours of inspection related activities:
  - 4685 hours at Millstone Unit 2
  - 4205 hours at Millstone Unit 3
- 3 resident inspectors assigned to the site
- Inspections

	Regional	Team
Units 2 and 3	4	3
Unit 2 only	2	2
Unit 3 only	1	4

- Inspection findings
  - 7 findings of very low safety significance (Green) at Unit 2
  - 4 findings of very low safety significance (Green) at Unit 3

# Millstone Station Assessment Results

**(Jan 1 - Dec 31, 2004)**

- Operated safely. Preserved public health & safety. Fully met all cornerstone objectives.
- Licensee response column of the Action Matrix for the fourth quarter of 2004 (cornerstone objectives fully met).
- Millstone Unit 2 in Regulatory Response column for 2<sup>nd</sup> and 3<sup>rd</sup> quarter of 2004.
- NRC will conduct baseline inspections during the next cycle (Jan 1 – Dec 31, 2005)

# Planned Millstone Inspection Activities

(Jan 1 - Dec 31, 2005)

- ROP inspections

	Regional	Team
Units 2 and 3	1	1
Unit 2 only	3	3
Unit 3 only	2	3



# NRC Security Program Update

- NRC has issued Orders (February 2002) that require:
  - Increased Patrols
  - Augmented Security Capabilities
  - Added Barriers and Posts
  - Enhanced Personnel Screening for Access
  - Enhanced Security Awareness
- NRC, Office of Nuclear Security and Incident Response Formed (April 2002)
- NRC established Threat Advisory and Protective Measure System (August 2002)

## **NRC Security Program Update** (continued)

- Access Authorization Order (January 2003)
- Training Order (April 2003)
- Fatigue Order (April 2003)
- Design Basis Threat Order (April 2003)
- Changes to Site Security plans to incorporate the requirements of the orders (April 2004)

## NRC Security Program Update (continued)

- Expanded Force-on-Force Exercises
- New NRC Baseline Inspection Program initiated (February 2004)
- All Security Upgrades were required to be completed by October 29, 2004 and are currently being inspected through the baseline inspection program

# Ways for the Public To Become Informed & Involved in the Regulatory Process

## Examples

- Participate in NRC Public Meetings
- Sign up to be on the NRC mailing list
- Visit the NRC website on a regular basis
- Publicly comment on proposed licensing actions or file a Petition for Rulemaking
- Implement 10 CFR 2.206 petition process
- Contact the NRC via E-mail, mail or phone to address questions or areas of concern
- Participate in open NRC/industry symposiums
- Request information through the Freedom of Information Act (FOIA)

# 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)

- Public Comment & Involvement in Rulemaking

- ▶ <http://ruleforum.llnl.gov>

# 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
- Main Contact
  - Paul Krohn, Branch Chief, Division of Reactor Projects
  - (610) 337-5120
  - Email at: [PGK1@nrc.gov](mailto:PGK1@nrc.gov)

# Licensee Response and Remarks

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Millstone Nuclear Power Station  
Unit 2 and Unit 3  
Dominion Nuclear Connecticut, Inc.