

ATTACHMENT 1

OCTOBER 11, 2000 PUBLIC MEETING PRESENTATION MATERIAL

# **NRC's REACTOR OVERSIGHT PROCESS**



**Nuclear Regulatory Commission  
Washington, D.C.**

# Overview

- **Who we are**
- **Why we are here**
- **Overview of new program**
- **Key benefits of the new program**
- **What's in it for you**
- **Your questions**

# **Overall NRC Activities**

- **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**



# FOUR KEY NRC OUTCOME MEASURES

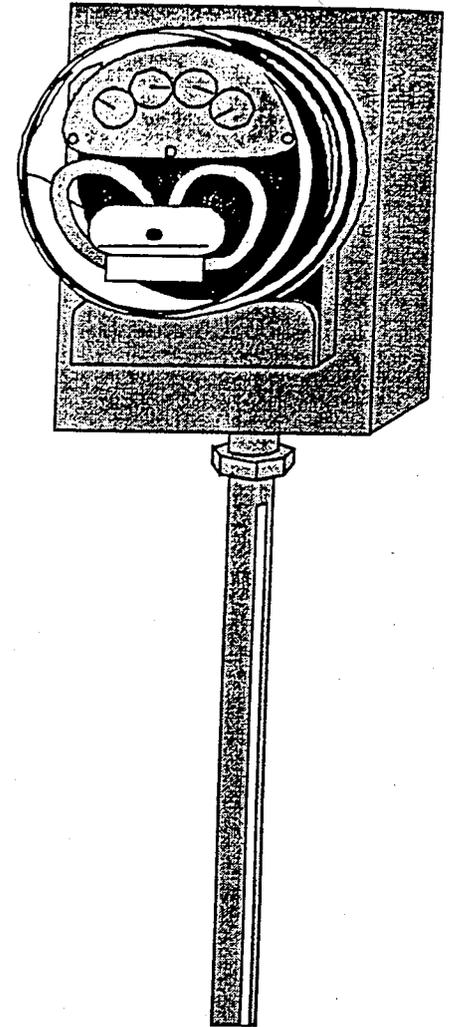
- *Maintain safety and protect the environment*
- *Enhance public confidence*
- *Improve effectiveness, efficiency, and realism of processes and decision making*
- *Reduce unnecessary regulatory burden*

# **Our Previous Program**

- **Modified periodically to reflect lessons learned**
- **Utilize resident NRC inspectors and Regional inspectors to inspect each plant**
- **Assessed plant performance based on inspection results**
- **Primarily compliance oriented**

# Forces Influencing Transition

- **Maturing industry and technology**
- **Improved plant performance**
- **Improved regulatory tools**
- **External Factors**
- **Internal Factors**



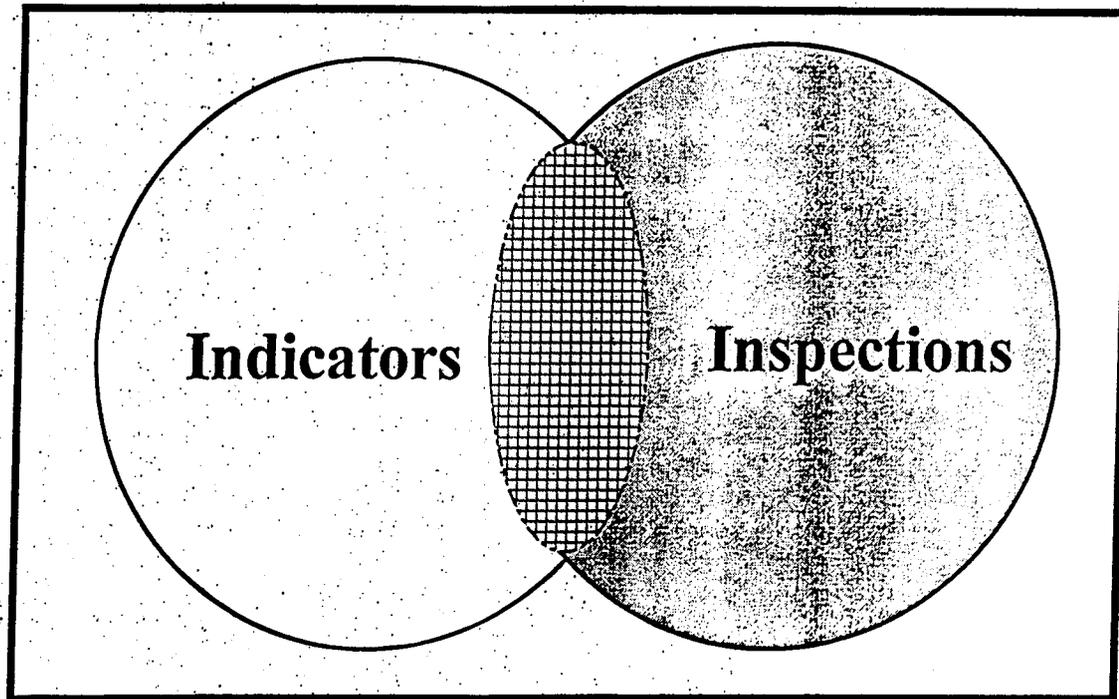
# **Our revised program . . .**

- **Based upon a logical and sound framework**
- **Uses objective indicators of performance**
- **Uses inspections focused on key safety areas**
- **Provides for a more consistent, timely and objective process**

# **KEY ASPECTS OF THE NEW PROCESS**

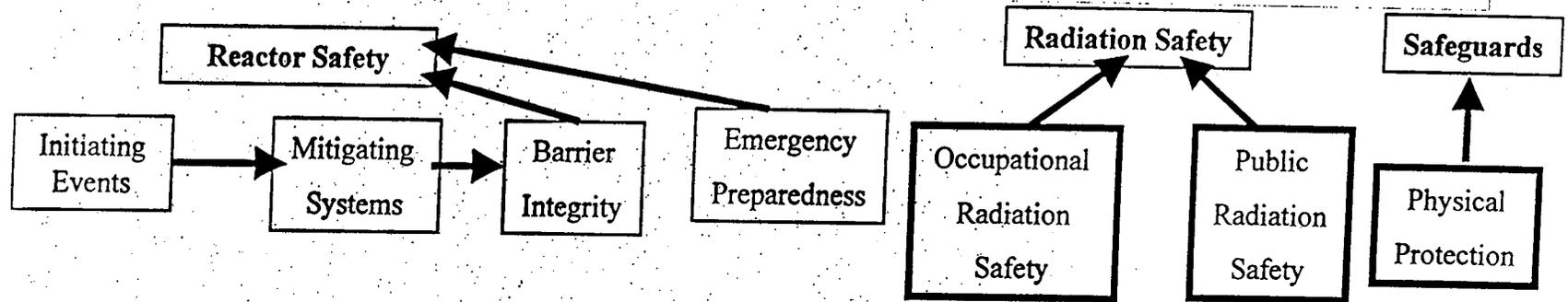
- **Establishes Cornerstones of Safety**
- **Uses objective indicators of performance**
- **NRC inspectors monitor plants**
- **Assessment program triggers regulatory actions**

# Assessing Performance

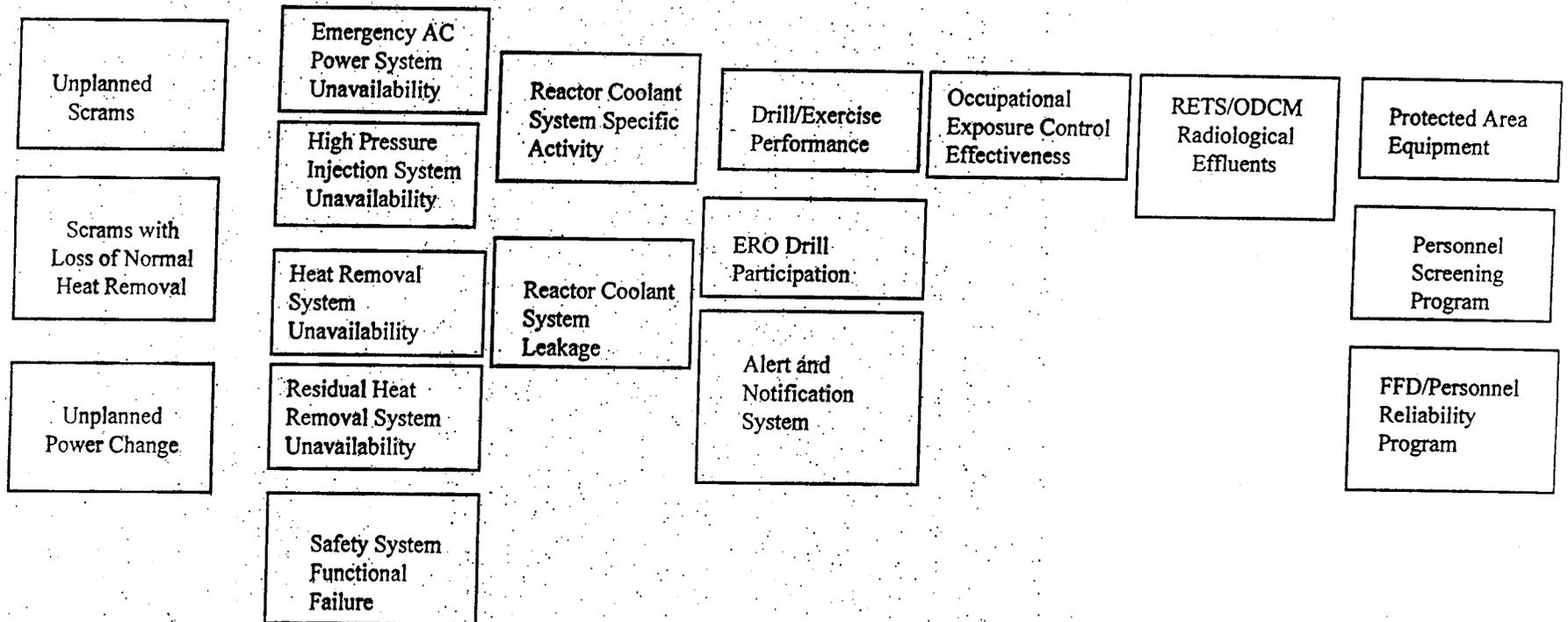


**Performance Indicators    Inspection Program**

# The three Strategic Performance Areas are subdivided into seven Cornerstones which are subdivided into 18 Performance Indicators

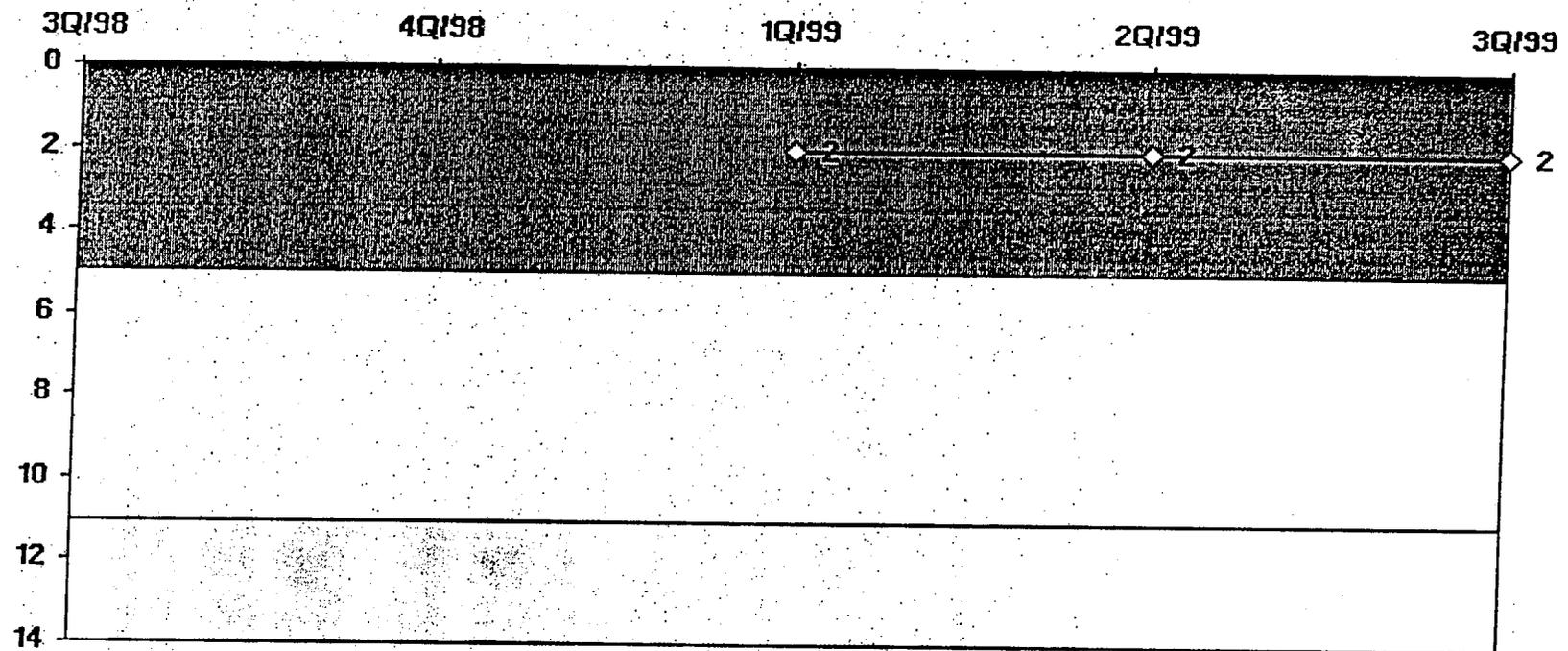


Performance Indicators  
Based on data first quarter 2000



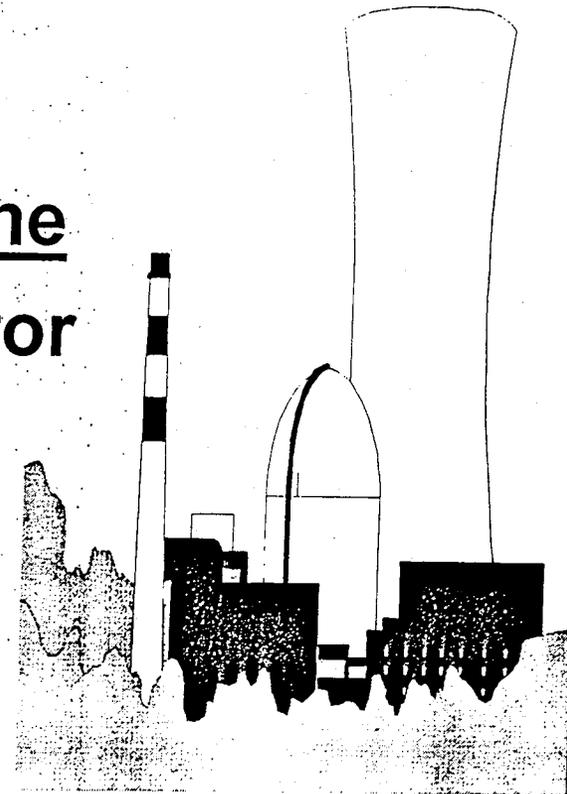
**A Performance Indicator uses  
objective data to monitor performance  
in each Cornerstone area**

### Occupational Exposure Control Effectiveness



# NRC Conducts Safety Inspections

NRC resident and regional inspectors conduct a Baseline Inspection Program to monitor plant safety performance in each of the Strategic Performance Areas



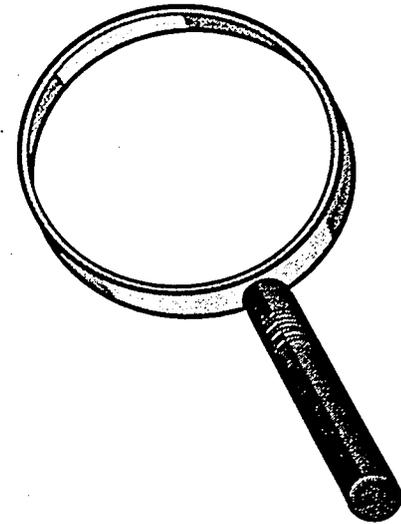
# An Action Matrix is used to assess overall plant safety performance and specify thresholds for NRC Enforcement Actions

## Action Matrix

		Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
Response	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 Cornerstones, 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
	Regulatory Conference	None	Branch Chief (BC) or Division Director (DD) meet with Licensee	DD or Regional Administrator (RA) meet with Licensee	EDO (or RA) meet with Senior Licensee Management	Commission meeting with Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee 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	Document response to degrading area in assessment letter	Document response to degrading condition in assessment letter	10 CFR 2.204 DFI 10 CFR 50.54(f) letter CAL/Order	Order to modify, suspend, or revoke licensed activities
Communications	Assessment Reports	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	SR 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 →						

# **Continued emphasis on safety**

- **Strict standards, daily monitoring will continue**
- **Clear, consistent objectives, focused on safety**
- **NRC monitoring results easier for public to understand and more readily available**



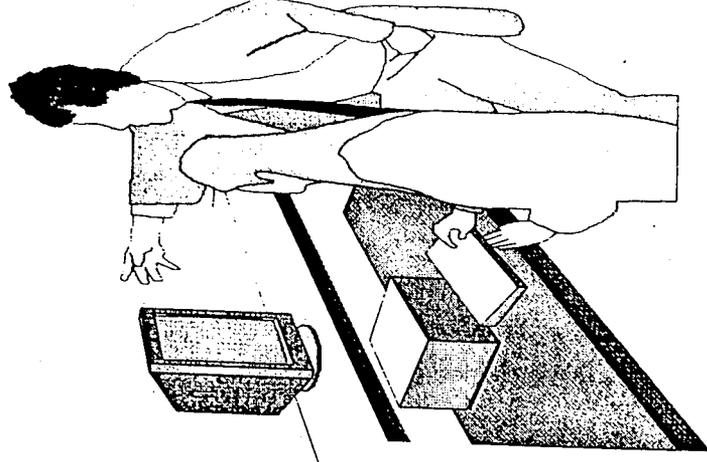
# **How the Public Benefits**

- **Clearer information, more readily available, more understandable**
- **Predictable and consistent actions by the regulator based on plant performance**
- **Focus on most significant issues enhancing safety**

# What will the public see?

- Public meetings to provide direct information
- Performance Indicator data will be available on NRC public WEB site
- Periodic reports on NRC WEB site
- WEB ADDRESS:

– [www.nrc.gov/NRR/OVERSIGHT/index.html](http://www.nrc.gov/NRR/OVERSIGHT/index.html)



# INDIAN POINT 3 STATUS

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- **ALL LICENSEE PERFORMANCE INDICATORS ARE GREEN**
- **ONE GREEN INSPECTION FINDING REGARDING POOR OPERATOR PERFORMANCE - CAUSED JUNE 4, 2000 REACTOR TRIP**
- **PENDING SALE AND LICENSE TRANSFER TO ENERGY**
- **NEXT REFUELING OUTAGE SCHEDULED FOR MAY**

# U.S. Nuclear Regulatory Commission



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# Nuclear Reactors



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## Revised Reactor Oversight Process

- Daily Event Rpt
- Daily Rpt
- Previous Daily Rpts
- Generic Safety Issues
- Fire Protection
- Fitness-for-Duty
- HO Daily Rpt
- Human Factors Sys
- IG Reports
- Indian Point 2 Event
- Inservice Testing
- License Renewal
- Maintenance Rule
- NRC Insp Manual
- Operator Licensing
- Plant Info Books
- Plant Status Rpt
- Part 21 Rpts
- Plant Assessment
- Preliminary Notifications
- Project Manager (PM) List
- Reactor Oversight Process
- Risk-Informed Part 50 Initiatives
- Site Locations
- Technical Specifications
- Voluntary Industry Initiatives



Start Nuclear Reactors...

Document Done

Acrobat Reader

Corel WordPerfect



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# Reactor Oversight Process

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[ROP "Plain Language" Description](#)

[Meeting Notices & Summaries](#)

[ROP Program](#)

## *Role of the Reactor Oversight Process*

The Nuclear Regulatory Commission's (NRC's) mission is to ensure adequate protection of the public health and safety and the environment, as it relates to the peaceful use of nuclear materials in the United States. The agency itself does not operate nuclear power plants. Rather, it regulates the operation of the nation's 103 nuclear power plants by establishing regulatory requirements for the design, construction and operation of such plants. The NRC issues licenses for the plants to operate, licenses the plant operators, and establishes plant specific technical specifications for plant operators to follow to ensure that the plants are operated safely within these requirements.

The NRC provides continuous oversight of plants through its reactor oversight process (ROP) to verify that they are being operated in accordance with NRC rules and regulations. The NRC has full authority to take whatever action is necessary to protect public health and safety and may demand immediate licensee actions, up to and including

### Reactor Oversight Process

### Plant Assessment Results

Cornerstones & Performance Indicators Performance Indicators Summary Inspection Reports Home

### Plant Performance Summaries

- Alphabetical listing of plants  
ABCDEFGHIJKLM  
NOPQRSTUVWXYZ
- Region 1 plants
- Region 2 plants
- Region 3 plants
- Region 4 plants

### Alphabetical listing of plants:

- A**
  - Arkansas 1
  - Arkansas 2
- B**
  - Beaver Valley 1
  - Beaver Valley 2

Performance information is summarized for each plant and sorted by the seven cornerstones of safety. This information can be viewed by selecting the plant name from the left column (organized alphabetically as well as by the region where the plants are located). F or each plant, Performance Indicators (PIs) are shown first, followed by a summary of NRC inspection findings. Links are also provided to NRC assessment letters, inspection plans, and inspection reports. In addition, PIs for all plants are summarized in a [PI Summary matrix](#).

Both PIs and inspections findings are evaluated and given a color designation based on their safety significance. Green inspection findings or PIs indicate a very low risk significance and therefore have little or no impact on safety. White, yellow, or red inspection findings or PIs each, respectively, represent a greater degree of safety significance.

Reactor Oversight Process Performance Indicators Summary

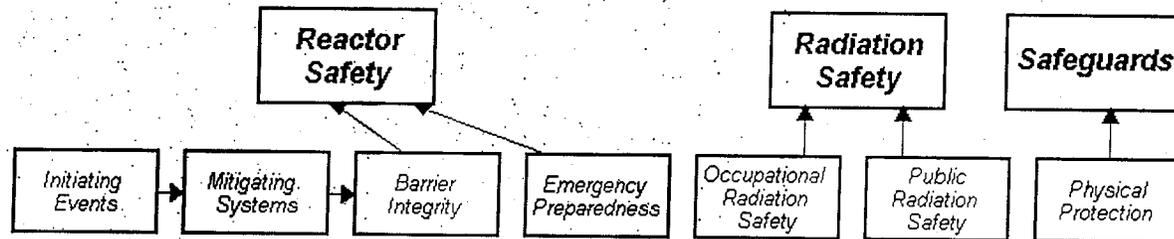
Plant Assessment Results Comparison & Performance Indicators Inspection Reports Home

Plants	IE 01	IE 02	IE 03	MS 01	MS 02	MS 03	MS 04	MS 05	BI 01	BI 02	EP 01	EP 02	EP 03	OR 01	PR 01	PP 01	PP 02	PP 03
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Hope Creek 1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Indian Point 2	W	G	G	W	G	G	G	G	N	N	G	G	G	G	G	G	G	G
Indian Point 3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Kewaunee	G	G	G	G	G	G	G	G	G	G	Y	G	G	G	G	G	G	G
LaSalle 1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
LaSalle 2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	W	G	G

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

## Indian Point 2 2Q/2000 Performance Summary

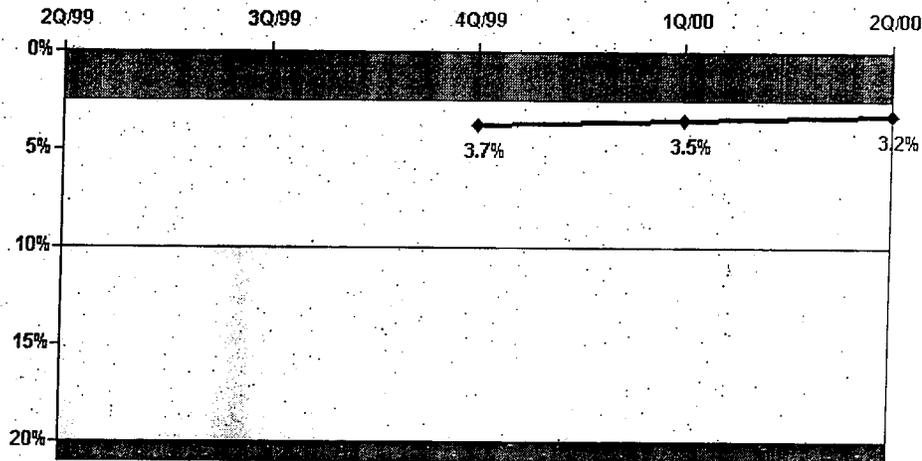


### Performance Indicators

Unplanned Sorams (W)	Emergency AC Power System Unavailability (W)	Reactor Coolant System Activity (U)	Emergency Preparedness (G)	Occupational Radiation Safety (G)	Public Radiation Safety (G)	Physical Protection Equipment (G)
Sorams with or without Removal (G)	High Pressure Injection System Unavailability (G)	Reactor Coolant System Leakage (U)	Exp. Unit Performance (G)			Personnel Security Program (G)
Unplanned Power Change (G)	High Pressure System Unavailability (G)		High Pressure System (G)			High Pressure System (G)
	Reactor Coolant System Unavailability (G)					
	Emergency AC Power System Unavailability (G)					

**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

### Safety System Unavailability, Emergency AC Power, >2EDG



Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

Link to Notes

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Safety System Unavailability, Emergency AC Power, >2EDG	2Q/99	3Q/99	4Q/99	1Q/00	2Q/00
<b>Train 1</b>					
Planned unavailable hours	6.03	73.45	52.85	2.12	0
Unplanned unavailable hours	1.48	0	38.47	0	0
Fault exposure hours	0	0	0	0	0
Required hours	2184.00	2208.00	2184.00	2184.00	2184.00
<b>Train 2</b>					
Planned unavailable hours	9.25	27.45	7.84	51.14	0
Unplanned unavailable hours	1.75	0	0	0	0
Fault exposure hours	0	0	0	0	0
Required hours	2184.00	2208.00	2184.00	2184.00	2184.00
<b>Train 3</b>					
Planned unavailable hours	6.58	10.83	34.25	3.81	0
Unplanned unavailable hours	1.80	26.17	0	0	0
Fault exposure hours	0	1443.93	0	0	0
Required hours	2184.00	2208.00	2184.00	2184.00	2184.00
Indicator value			3.7%	3.5%	3.2%

Licensee Comments: None

Initiating  
Events



Mitigating  
Systems



Barrier  
Integrity

Emergency  
Preparedness

Occupational  
Radiation  
Safety

Public  
Radiation  
Safety

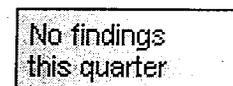
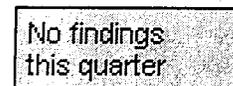
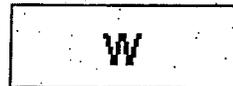
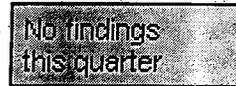
Physical  
Protection

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### Most Significant Inspection Findings

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3/2000



[Click here for  
Miscellaneous findings](#)

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### Additional Inspection & Assessment Information

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#### Assessment Letters:

- 2Q/2000
- 1Q/2000

#### Inspection Plans

#### Inspection Reports

## Emergency Preparedness

Significance:  Jun 02, 2000

Identified By: NRC

Item Type: AV Apparent Violation

**Apparent failure to augment the ERO in a timely manner - failure to meet planning standard 10 CFR 50.247(b)(2)**

In response to the Alert of February 15, 2000, there was a failure to augment the ERO within 60 minutes of the declaration of the Alert contrary to the Indian Point 2 (IP2) E-Plan Figure 5.2-1. Followup inspection identified several program structure deficiencies or design problems that contributed to an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(2). This finding was an apparent violation of low to moderate safety significance because of the failure to meet an NRC emergency planning standard.

Inspection Report# : 2000006(pdf)

Significance:  Jun 02, 2000

Identified By: NRC

Item Type: AV Apparent Violation

**Apparent failure to complete accountability in a timely manner - failure to meet planning standard 10 CFR 50.47(b)(10)**

In response to the Alert of February 15, 2000, there was a failure to account for onsite radiation workers within 30 minutes of initiation contrary to the IP2 E-Plan section 6.4.1.d and E-Plan implementing procedure 1027 section 5.1.2.f. Followup inspection further identified several program deficiencies or design problems indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(10) concerning accountability. This finding was an apparent violation of low to moderate safety significance because of the apparent failure to meet an NRC emergency planning standard.

Inspection Report# : 2000006(pdf)

## Emergency Preparedness

Significance:  Jun 02, 2000

Identified By: NRC

Item Type: AV Apparent Violation

**Improper dissemination of information to public and local official - failure to meet planning standard 10 CFR 50.47(b)(7)**

In response to the Alert of February 15, 2000, there was a failure to properly disseminate information about the Alert conditions. As a result there was confusion in the public domain about whether there was a radiation release and its magnitude, and one local official was not notified in accordance with a pre-arranged agreement. This was contrary to the IP2 E-Plan section 5.2.3, which requires consistent information be disseminated. Followup inspection identified a number of program structure or design problems indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(7) concerning dissemination of information. This finding was an apparent violation of low to moderate safety significance because of the failure to meet an NRC emergency planning standard.

Inspection Report# : 2000006(pdf)

# ENFORCEMENT

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## INDIAN POINT 2

### ■ CIVIL PENALTIES

- ▶ 5/97 VARIOUS CORRECTIVE ACTION/ENGINEERING ISSUES (\$205K)
- ▶ 10/97 RECIRCULATION PUMP (\$110K)
- ▶ 7/98 DB 50 CIRCUIT BREAKERS AND EMERGENCY LIGHTS (\$110K)
- ▶ 2/00 LOSS OF OFFSITE POWER EVENT (\$88K)

### ■ CONFIRMATORY ACTION LETTERS

- ▶ 2/97 FEED REG VALVES FAILED TO CLOSE
- ▶ 3/98 EQUIPMENT PERFORMANCE, ENGR SUPPORT, CORRECTIVE ACTION PROCESSES

# **“AGENCY FOCUS” DESIGNATION**

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## INDIAN POINT 2

- HEIGHTENED MANAGEMENT REVIEW OF RECOVERY EFFORTS
- SUPPLEMENTAL INSPECTION
- EXPECT PERIODIC NRC/ConEd MANAGEMENT MEETINGS

# **AGENCY FOCUS LETTER**

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- **COMMUNICATION/ COORDINATION AMONG SITE ORGANIZATIONS**
- **ENGINEERING SUPPORT/ RESOLUTION OF PLANT PROBLEMS**
- **CONFIGURATION MANAGEMENT/ CONTROL**
- **EQUIPMENT RELIABILITY/ CORRECTIVE ACTION BACKLOGS**
- **OPERATOR KNOWLEDGE/ STATION TRAINING/ PROCEDURES**

# **AGENCY FOCUS LETTER (CONT'D)**

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- **EMERGENCY PREPAREDNESS**
- **BROAD PERFORMANCE ISSUES/DEFICIENCIES IN CORRECTIVE ACTION PROGRAM EFFORTS**
- **SOME PAST PROGRESS FROM UTILITY IMPROVEMENT INITIATIVES BUT LIMITED IN REMEDYING UNDERLYING PROBLEMS**
- **UNDER CURRENT MANAGEMENT:**
  - ▶ **HIGHER STANDARDS**
  - ▶ **NEW IMPROVEMENT PLANS**
  - ▶ **WILL STILL REQUIRE CONSISTENT CORPORATE SUPPORT**

ATTACHMENT 3  
 INDIAN POINT 2 (October 2000 Evaluation)  
**SUMMARY, by Quarter, of INPUTS TO NRC ACTION MATRIX**

Cornerstone	CY 1999		CY 2000				CY 2001	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
IE				PI4 White	IF3 <sup>1</sup> Yellow or Red	IF3 Yellow or Red	IF3 Yellow or Red	IF3 Yellow or Red
MS	IF1 <sup>2</sup> Yellow	IF1 Yellow	IF1 Yellow PI2 <sup>4</sup> White	IF1 Yellow PI5 White	→	→ <sup>3</sup>		
BI			PI3 <sup>4</sup> Yellow					
EP	IF2 White	PI1 <sup>5</sup> White IF2 White	IF2 White	IF2 White IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	
Matrix Column	N/A	N/A	N/A	Multiple Degraded	Multiple Degraded	Multiple Degraded	Multiple Degraded	Single Degraded

<sup>1</sup>Classification based on event effects on CDF and LERF. NRC has preliminarily concluded that the tube failure was caused by a licensee performance issue. Final determination is pending supplemental information to be provided to address questions from the 9/26 Regulatory Conference.

<sup>2</sup>Published in the RROP "Feasibility Review," Attachment 7 to Sec'y 00-0049. The review of this event preceded the initiation of the Revised Reactor Oversight Program (RROP). While the August 1999 event pre-dates the initial implementation of the ROP, useful risk insights can be derived from considering the results of the SDP for that event.

<sup>3</sup>In accordance with Manual Chapter 0305, this inspection finding will not be removed from consideration of future agency actions until the identified weaknesses have been corrected.

<sup>4</sup>As posted on the NRC's external web page for the first quarter of 2000.

<sup>5</sup>If a finding and PI turn color because of the same underlying issue, only one will be counted because of double jeopardy considerations.

# MULTIPLE DEGRADED CORNERSTONE

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## ADDITIONAL ACTIONS

- “LICENSEE PERFORMANCE IMPROVEMENT PLAN W/ NRC OVERSIGHT”
  - ▶ ConEd BUSINESS PLAN (HIGH LEVEL DOCUMENT)
  - ▶ NRC ASSESS THROUGH MANAGEMENT MEETINGS, SITE VISITS, & INSPECTIONS
  
- “DFI, 50.54(f) LETTER, CAL, or ORDER”
  - ▶ PAST DECISIONS
  - ▶ ROP CALLS FOR A DECISION FOLLOWING 95003
  
- “ASSESSMENT REPORT”
  - ▶ RA SIGNS...COMMISSION INFORMED
  
- “ANNUAL MEETING...EDO (or COMMISSION) DISCUSS PERFORMANCE W/ LICENSEE

# UPCOMING KEY INSPECTIONS

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- **50001 STEAM GENERATOR REPLACEMENT INSPECTION**
- **OCTOBER - BASELINE PI&R PROCEDURES (2 WEEKS)**
- **OPERATOR REQUAL (OCTOBER 16)**
- **95003 INSPECTION (PLANNED FOR JANUARY)**
- **EP DRILL INSPECTION (2nd QUARTER 2001)**

# 95003 INSPECTION

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## KEY ATTRIBUTES

- FOR MULTIPLE DEGRADED CORNERSTONES
- “MORE DIAGNOSTIC THAN INDICATIVE”
- STRESSES “INDEPENDENT” ASSESSMENT BY NRC
- REQUIRES SAMPLING FOR ALL KEY AREAS OF AFFECTED STRATEGIC PERFORMANCE AREAS
- INCORPORATES VERTICAL SLICE OF SELECTED SYSTEM(S)
- “NOT INTENDED TO DUPLICATE...HOWEVER, SOME REPETITION MAY BE NECESSARY”
- “AIDS NRC IN DECIDING WHETHER ADDITIONAL ACTIONS ARE NECESSARY”

# STRATEGIC PERFORMANCE AREA

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## 95003 INSPECTION PROCEDURE ELEMENTS

- **REACTOR SAFETY**
  - ▶ PI&R
  - ▶ DESIGN
  - ▶ CONFIGURATION CONTROL
  - ▶ EQUIPMENT PERFORMANCE
  - ▶ PROCEDURE QUALITY
  - ▶ HUMAN PERFORMANCE
  - ▶ EMERGENCY PREPAREDNESS
  
- **RADIATION SAFETY**
  - ▶ *NOT APPLICABLE*
  
- **PHYSICAL PROTECTION**
  - ▶ *NOT APPLICABLE*