NRC FORM 658
(9-1999)

U.S. NUCLEAR REGULATORY COMMISSION

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Do not include proprietary materials.

DATE OF MEETING
6/28/01

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

Docket Number(s): 05000387 & 05000388

Plant/Facility Name: Susquehanna Steam Electric Station

TAC Number(s) (if available):

Reference Meeting Notice: 01-30

Purpose of Meeting (copy from meeting notice): To discuss the result of NRC's assessment of the safety performance at Susquehanna

NAME OF PERSON WHO ISSUED MEETING NOTICE: M. Shanbaky

TITLE: Branch Chief

OFFICE: RI

DIVISION: DRP

BRANCH: BR 4

Distribution of this form and attachments:
Docket File/Central File
PUBLIC

ANNUAL ASSESSMENT MEETING

Nuclear Regulatory Commission

Agenda

- Introduction
- Review of Reactor Oversight Process
- Discussion of Plant Performance Results
- Licensee Remarks
- NRC Closing Remarks

NRC Representatives

- Randy Blough, Director Division of Reactor Projects
  - (arb@nrc.gov (610) 337-5229)
- Mohamed Shanbaky, Chief Reactor Projects Branch
  - (mms1@nrc.gov (610) 337-5209)
- Don Florek, Senior Project Engineer
  - (djf1@nrc.gov (610) 337-5185)
- Sam Hansell, Senior Resident Inspector
  - (slh1@nrc.gov (570) 542-2134)
- John Richmond, Resident Inspector
  - (jer4@nrc.gov (570) 542-2134)

Reference Sources

Reactor Oversight Process

http://www.nrc.gov/NRR/OVERSIGHT/index.html

Public Electronic Reading Room

http://www.nrc.gov/NRC/ADAMS/index.html

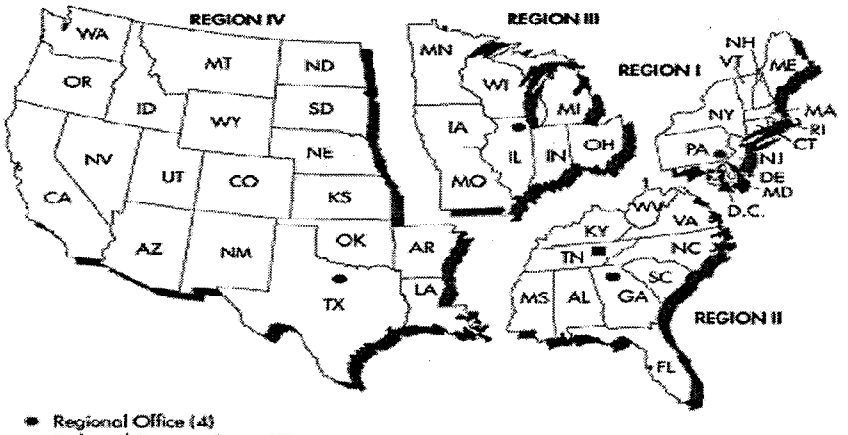
Public Document Room

1-800-397-4209 (Toll Free)

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

NRC REGIONAL OFFICES



- Regional Office (4)
- Technical Training Center (1)
- Headquarters (1)

Note: Alaska and Hawaii are included in Region IV.
Source: Nuclear Regulatory Commission

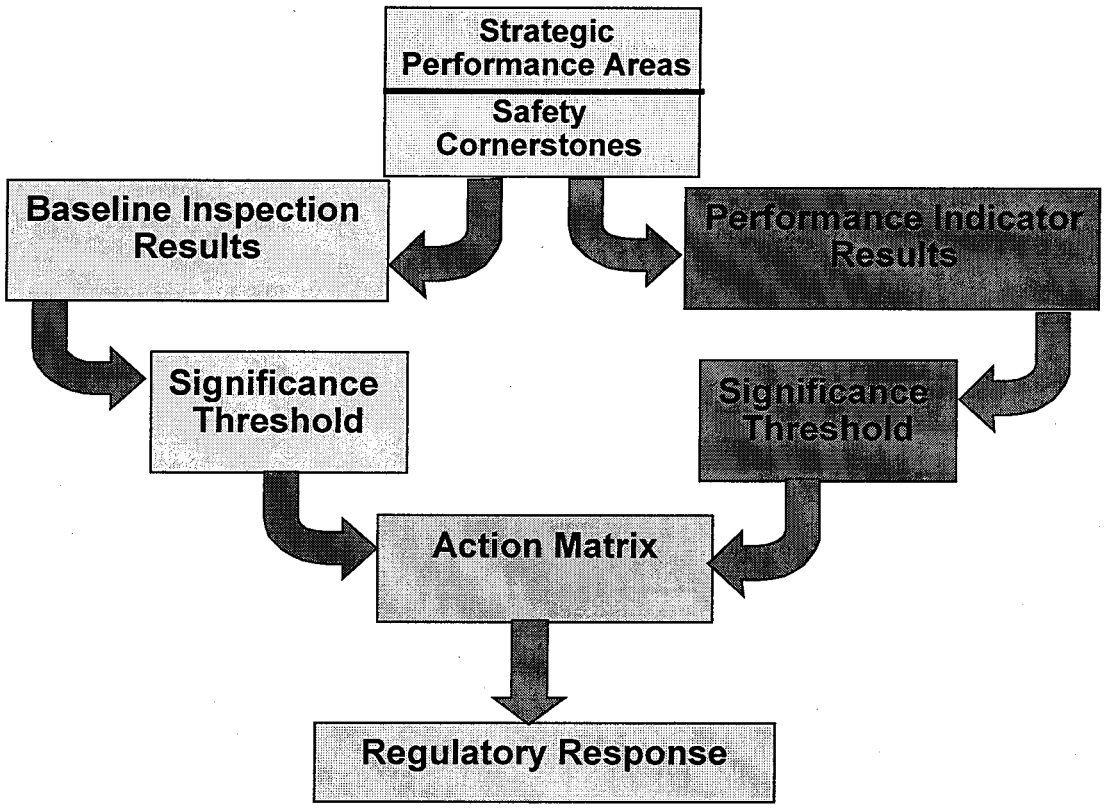
NRC Performance Goals

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

NRC Oversight Activities

- 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



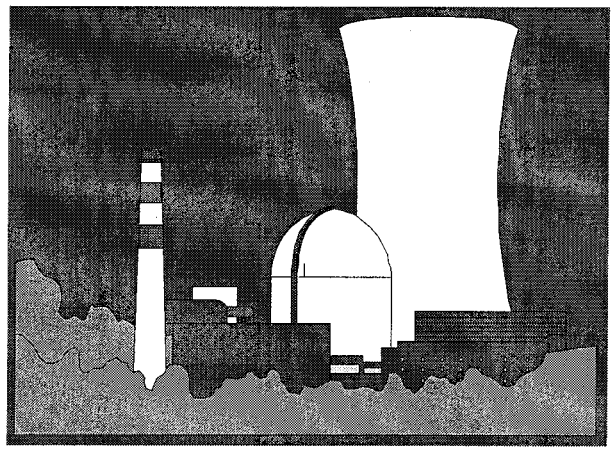
Strategic Performance Areas
Safety Cornerstones

- Reactor Safety
  - Initiating Events
  - Mitigating Systems
  - Barrier Integrity
  - Emergency Preparedness
- Radiation Safety
  - Occupational Radiation Safety
  - Public Radiation Safety
- Safeguards
  - Physical protection

NRC Resident and Regional Inspectors Conduct Safety Inspections

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

- 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

- Plant safety tours
- Plant control room tours
- Maintenance and alignment of equipment
- Operator response during simulated emergency conditions
- Worker radiation protection
- Controls for radiation releases
- Plant security

Event Follow-up and Supplemental Inspections

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

Performance Indicators

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

Significance Threshold

Performance Indicators

Green: Performance requiring no NRC oversight beyond baseline Inspection

White: Performance may result in increased NRC oversight

Yellow: Performance that minimally reduces safety margin and requires more NRC oversight

Red: Performance that represents significant reduction in safety, requires more NRC oversight, but provides adequate protection to public health and safety

Inspection Findings

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

Key Aspects of Assessment Program

- 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

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Degraded Cornerstone	Unacceptable Performance

Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions

National Summary

First Quarter Calendar Year 2001 Performance Indicator Results

Green: 1818
White: 14
Yellow: 0
Red: 0

Total Inspection Findings (April 2000 - March 2001)

Green: 1031
White: 20
Yellow: 1
Red: 1

National Summary of Plant Performance - 102 Plants End of First Quarter Calendar Year 2001

Licensee Response	83
Regulatory Response	15
Degraded Cornerstone	3
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0

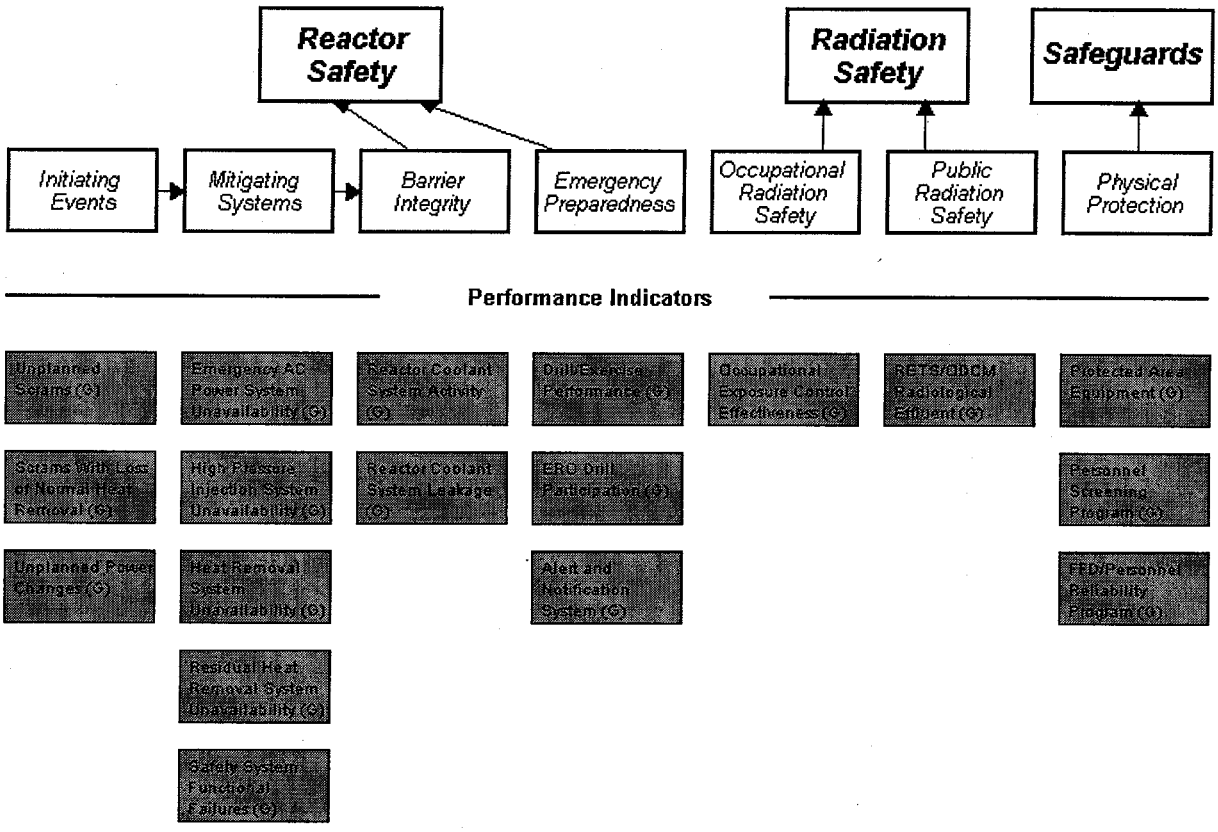
Susquehanna Annual Assessment

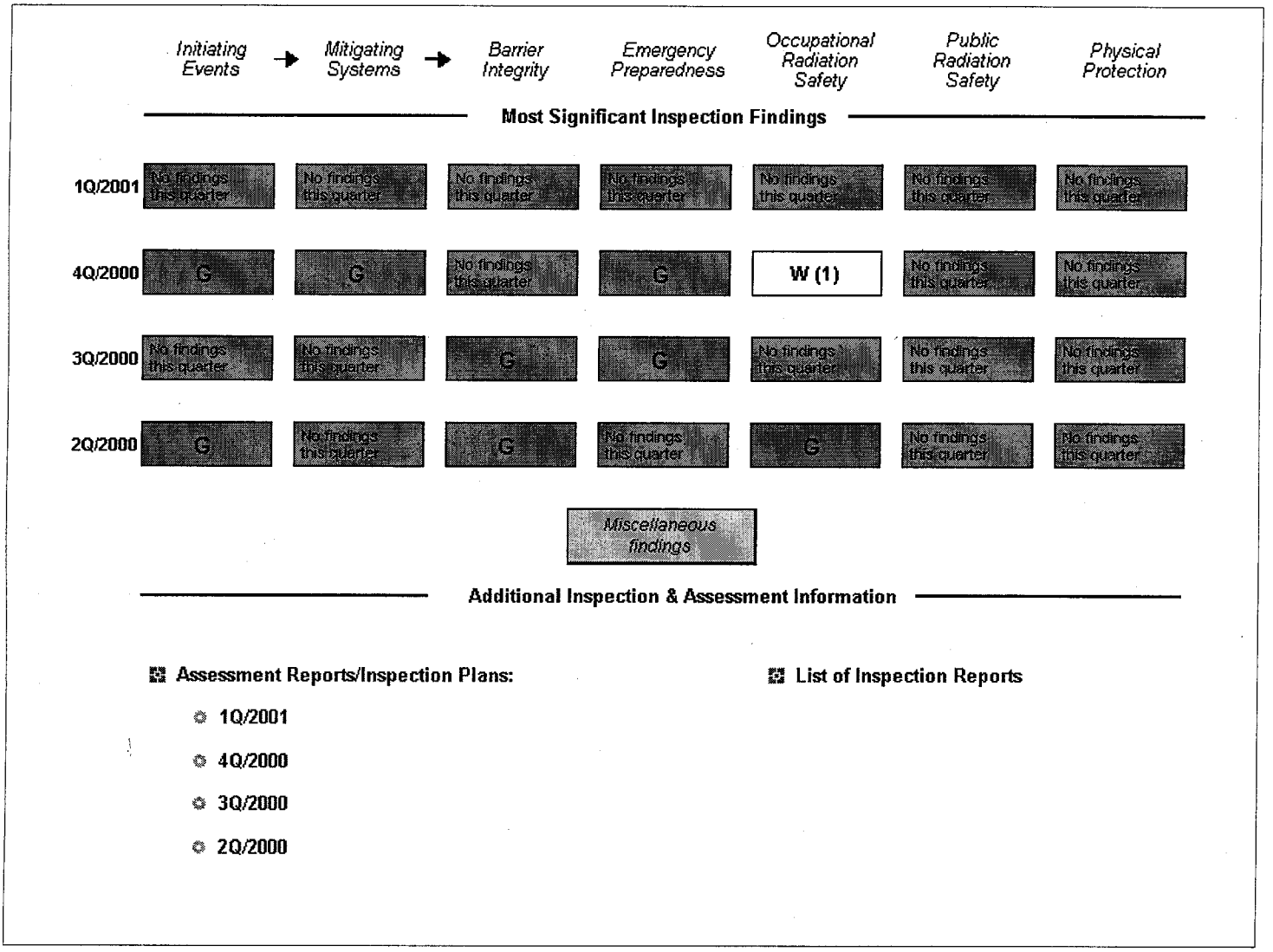
- Completed all baseline inspections
- Operated safely
- Fully met all cornerstone objectives
- Regulatory Response Band of Action Matrix
  - One Inspection Finding of low to moderate safety significance (White)
  - All Performance Indicators requiring no additional NRC oversight (Green)

Susquehanna Annual Assessment

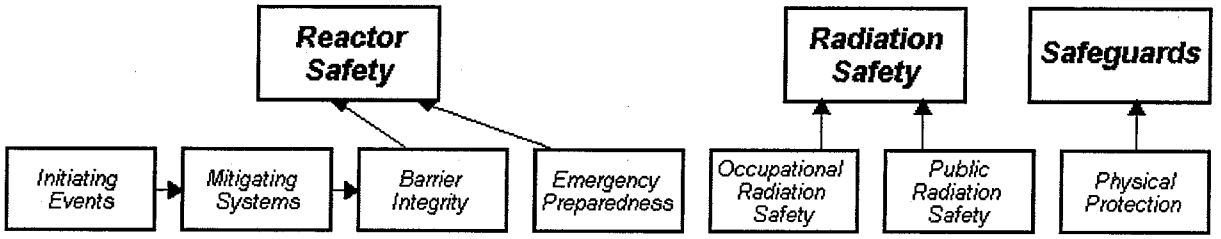
- Low to moderate safety significant (White) finding
  - Occupational Radiation Safety Cornerstone
  - Evaluation and characterization of highly radiation particles
  - No actual over-exposure
  - Potential over-exposure
- Supplemental inspection was completed
- Safety-conscious work environment
- Conduct baseline inspection program

Susquehanna 1
1Q/2001 Performance Summary

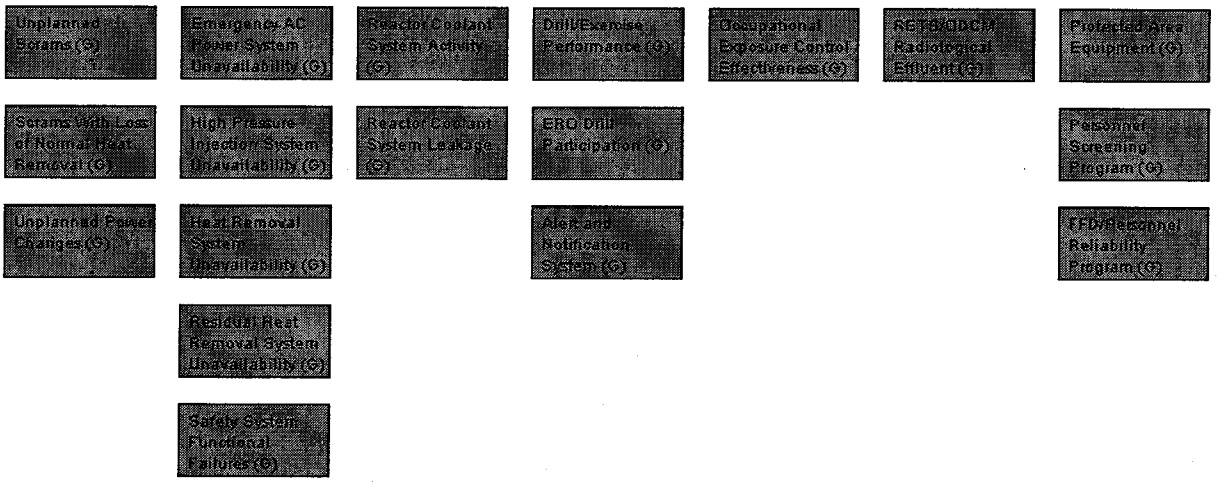


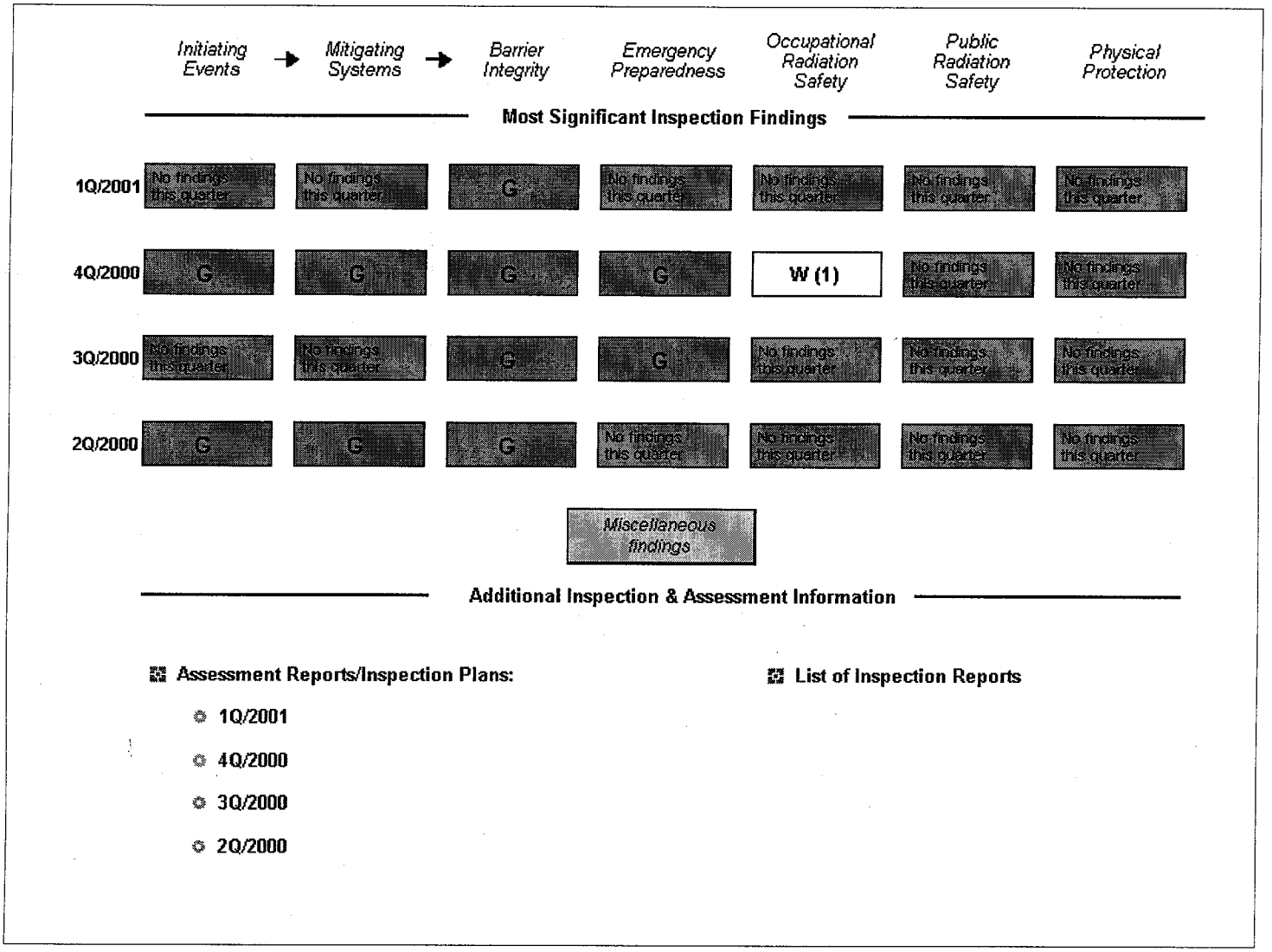

Initiating Events
Mitigating Systems
Barrier Integrity
Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Physical Protection
Most Significant Inspection Findings
1Q/2001
No findings this quarter
4Q/2000
G
W (1)
3Q/2000
2Q/2000
Miscellaneous findings
Additional Inspection & Assessment Information
Assessment Reports/Inspection Plans:
1Q/2001
4Q/2000
3Q/2000
2Q/2000
List of Inspection Reports

Susquehanna 2
1Q/2001 Performance Summary



Performance Indicators

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3Q/2000
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No findings this quarter
No findings this quarter
2Q/2000
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No findings this quarter
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No findings this quarter
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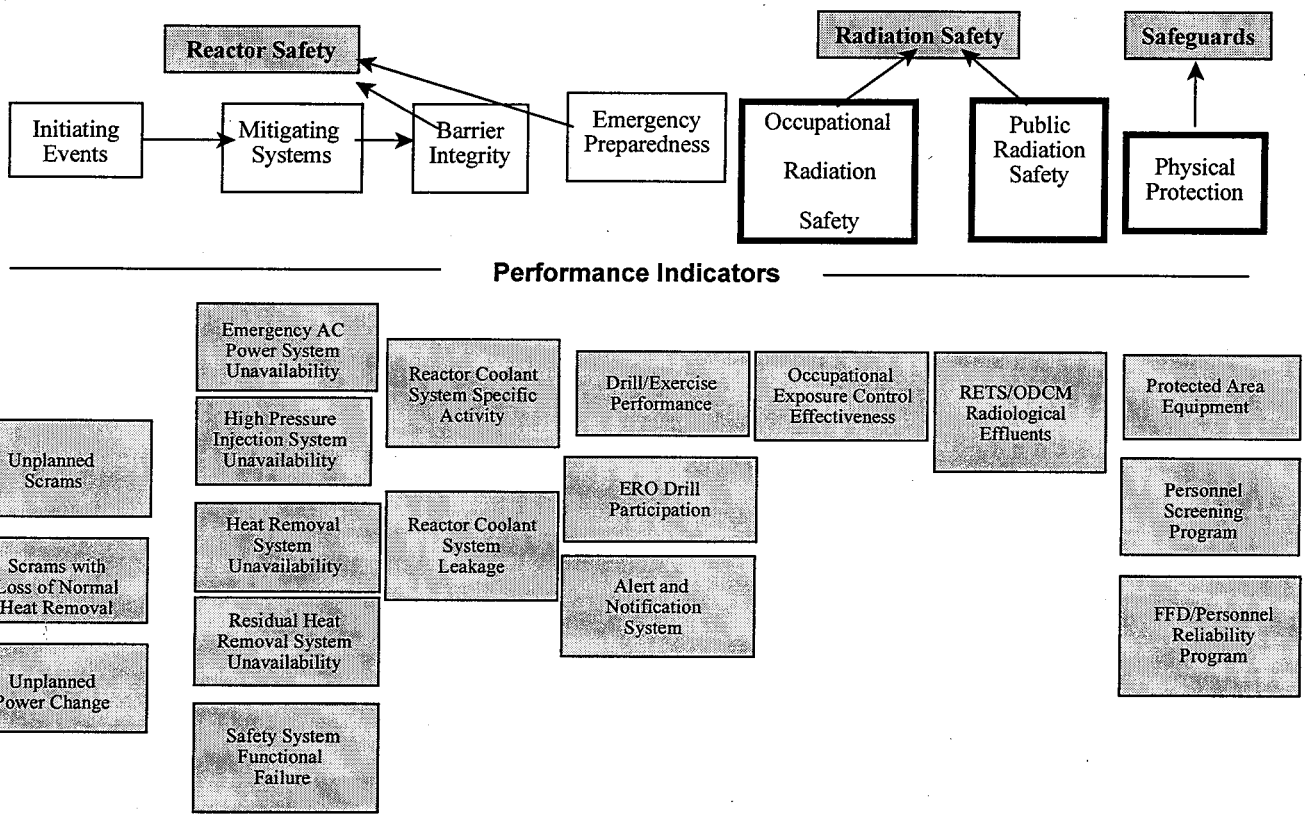
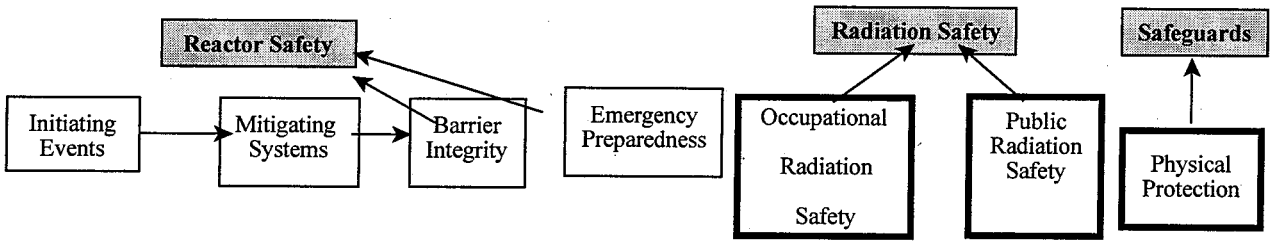
4Q/2000
3Q/2000
2Q/2000
List of Inspection Reports

Relationship of Strategic Performance Areas, Safety Cornerstones and Performance Indicators



Inspection Areas



Inspection Procedures

- Adverse Weather
- Evaluation of Changes
- Equipment Alignment
- Fire Protection
- Flood Protection
- Heat Sink
- In Service Inspection
- Operator Requalification
- Maintenance Rule Imp
- Maintenance Risk Assessment
- Non-Routine Events

- Operability Evaluation
- Operator Workarounds
- Permanent Mods-Online
- Permanent Mods
- Post Maintenance Test
- Refueling Outage
- SSDI
- Surveillance Testing
- Temporary Modifications
- PI&R
- Event Follow-up
- PI Verification

- Excercise Evaluation
- Alert and Notice
- ERO Augment
- EAL
- EP Preparation
- Drill Evaluation

- RAD Access
- ALARA Plan
- RAD monitoring
- RAD Effluents
- RAD Transport
- RAD Environmental

- Sec Authorization Access
- Sec Search
- Sec Response
- Sec Plan change

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 ——>					

Susquehanna Steam Electric Station Performance

NRC Annual Assessment Meeting

Susquehanna Energy Information Center

June 28, 2001

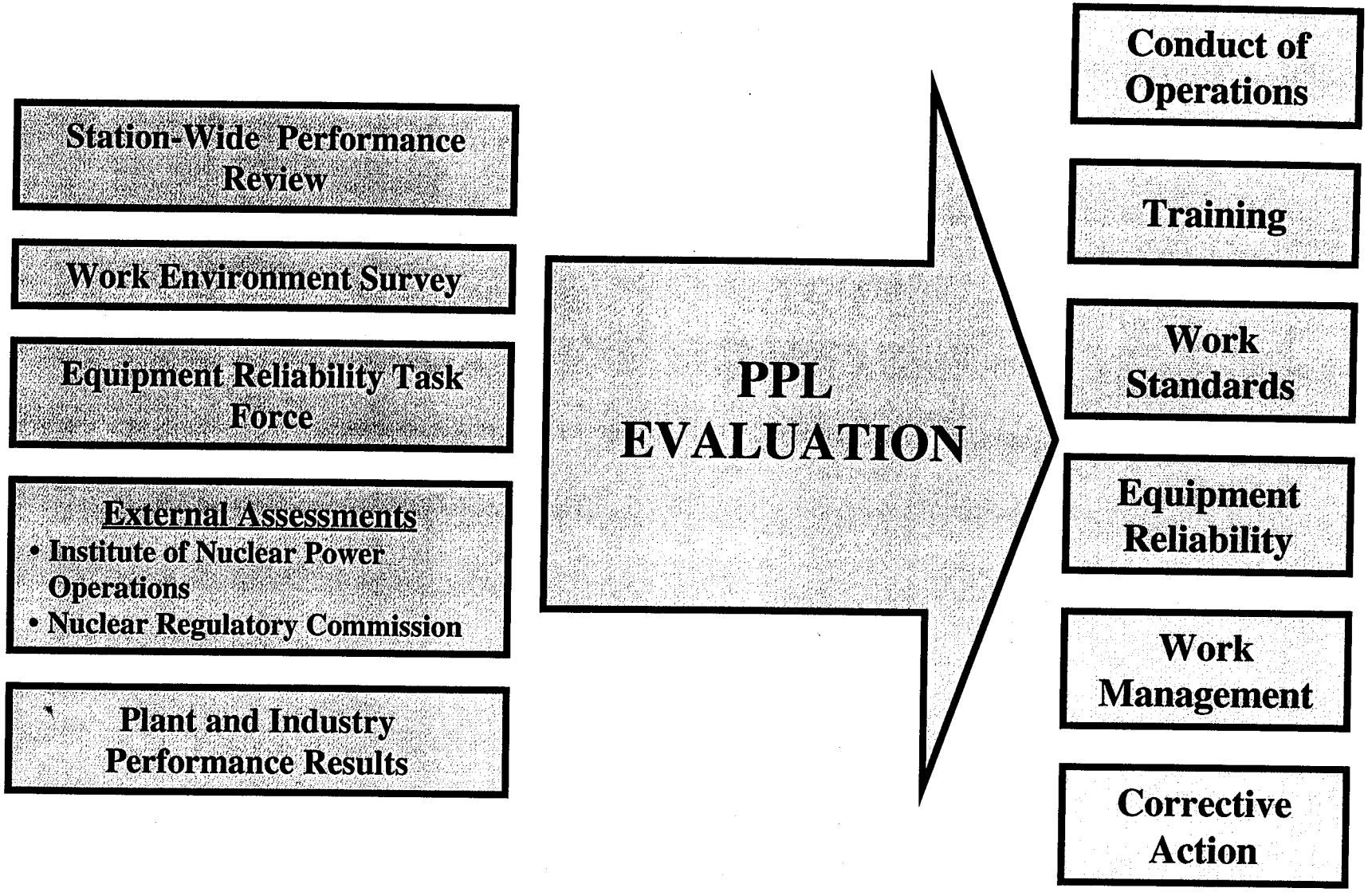
PPL Agenda

• Overview	**Bob Byram** Senior VP and Chief Nuclear Officer
• Assessment	**Bryce Shriver** VP - Nuclear Site Operations
• Key Initiatives	**Rich Anderson** General Manager - SSES Operations **Ron Ceravolo** General Manager - SSES Maintenance **Al Wrape** General Manager - Nuclear Engineering
• Investment	**George Jones** VP - Nuclear Engineering & Support
• Future Direction	**Bryce Shriver**
• Summary	**Bob Byram**

NRC Annual Assessment

- **Summary**
  - **Susquehanna operated "in a manner that preserved public health & safety."**
- **Issues**
  - **Radiological Controls**
  - **Station Work Environment**

Continued Improvement



Key Improvement Initiatives

- **Conduct of Operations**
  - **Objective: Nuclear Operations will lead the station to operational excellence with motivated, well-trained people working to high standards.**
- **Training**
  - **Objective: Training will be integrated into our culture as a critical tool to achieve world class performance.**

Key Improvement Initiatives

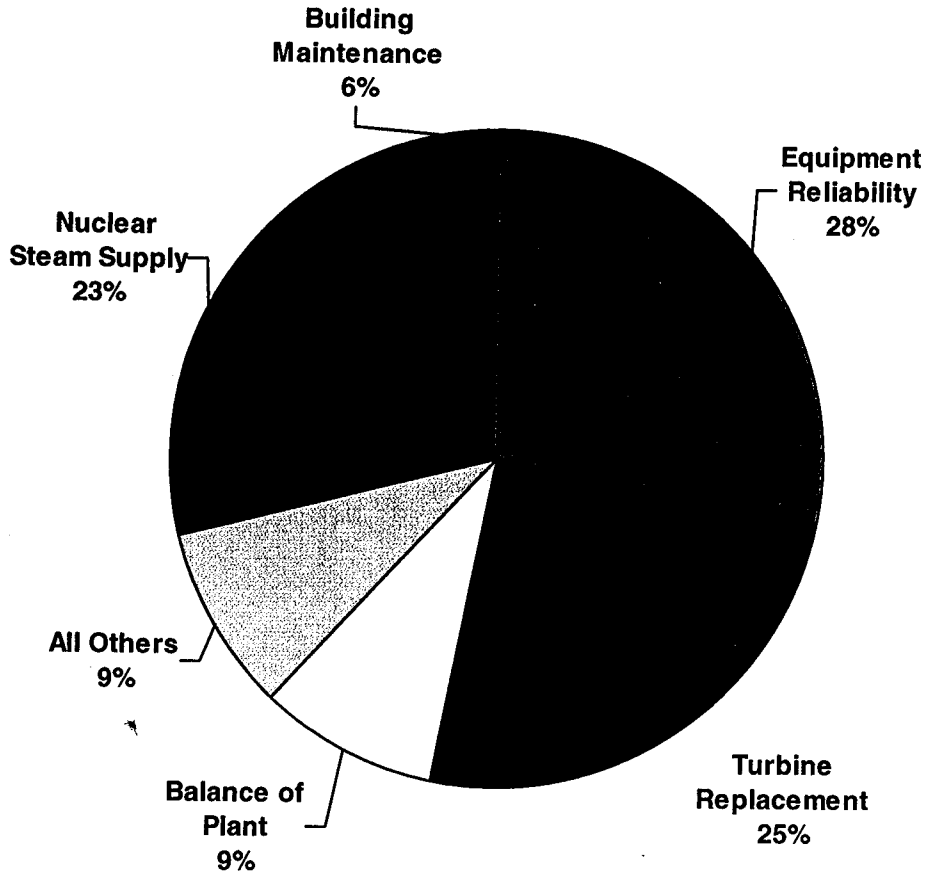
- **Work Standards**
  - **Objective: Our work standards and behaviors will reflect a culture that supports world class performance.**
- **Work Management**
  - **Objective: Maximize equipment reliability and work efficiency by working on the right equipment at the right time.**

Key Improvement Initiatives

- **Equipment Reliability**
  - **Objective: All plant equipment related to safe and reliable generation shall be maintained and operated to ensure "failure-free" performance.**
- **Corrective Action**
  - **Objective: A culture that willingly finds our own problems and effectively resolves them.**

Long Term Investment in Susquehanna: 2001 Equipment Reliability Actions

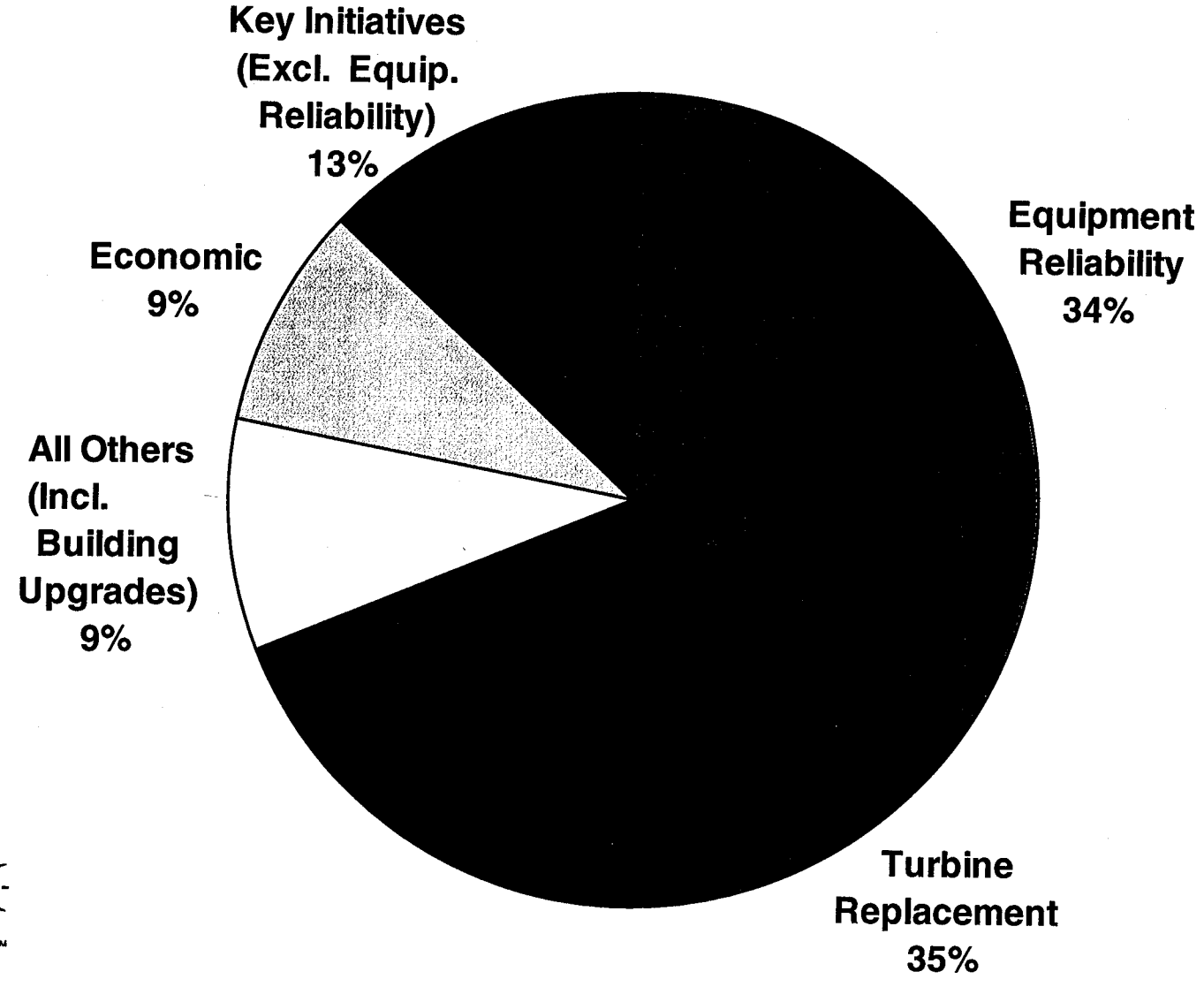
% of All 2001 Planned Project Spending by Type



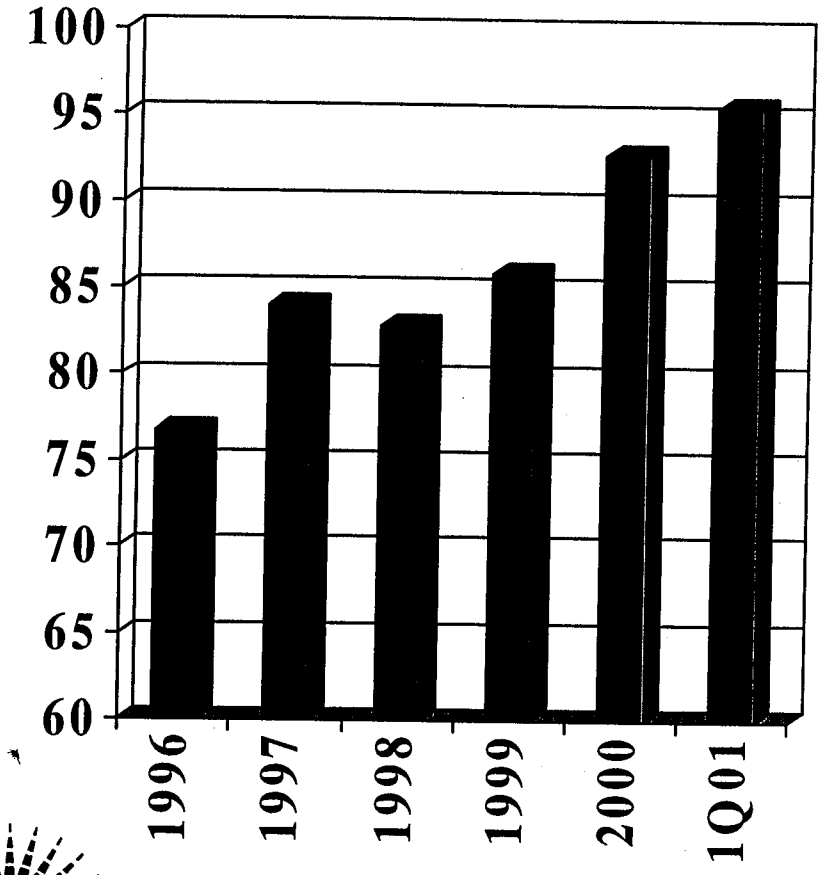
High Priority ER Issues Addressed in Unit 2 10RIO

- Generator Synch breaker inspection and overhaul.
- Priority 1 480V breaker 'gray box' replacement (solid state trip devices).
- 480V breaker overhauls .
- Valcor solenoid valve replacement.
- Reactor Recirculation System small bore piping inspection and repair.
- Reactor Recirculation System speed control modification.
- Main Steam Isolation Valve disassembly and inspection.
- Main and Auxiliary Transformer low voltage bushing testing.
- Verification of ability to isolate critical redundant components for on-line maintenance (i.e., stator cooling pumps).

Investment in Susquehanna: 2002 Planned Project Spending



Station Performance Index



INDEX PARAMETERS

- SAFETY SYSTEM PERFORMANCE
- FUEL RELIABILITY
- INDUSTRIAL SAFETY
- RADIATION EXPOSURE
- UNPLANNED SHUTDOWNS
- CHEMISTRY PERFORMANCE
- STATION AVAILABILITY

ppl

Future Direction

- **Continued Progress on Key Initiatives**
- **Benchmarking of Industry**
- **Strengthening Emergency Planning**

Summary

- Susquehanna is a key PPL asset.
- Safety is our #1 priority.
- The NRC provides critical insights.
- Our goal is top performance.