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**Do not include proprietary materials.***

DATE OF MEETING

**04/16/2002**

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

**02-024**

Purpose of Meeting  
(copy from meeting notice)

**Discuss NRC's assessment of the safety performance of**

**the Susquehanna Steam Electric Station for the period**

**April 1, 2001 through December 31, 2001.**

NAME OF PERSON WHO ISSUED MEETING NOTICE

**Dr. Mohamed Shanbaky**

TITLE

**Branch Chief**

OFFICE

**Region 1**

DIVISION

**Division of Reactor Projects**

BRANCH

**Branch 4**

Distribution of this form and attachments:

Docket File/Central File

PUBLIC

# Annual Assessment Meeting

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Reactor Oversight Program - Cycle 2



Nuclear Regulatory Commission -Region I  
King of Prussia, PA

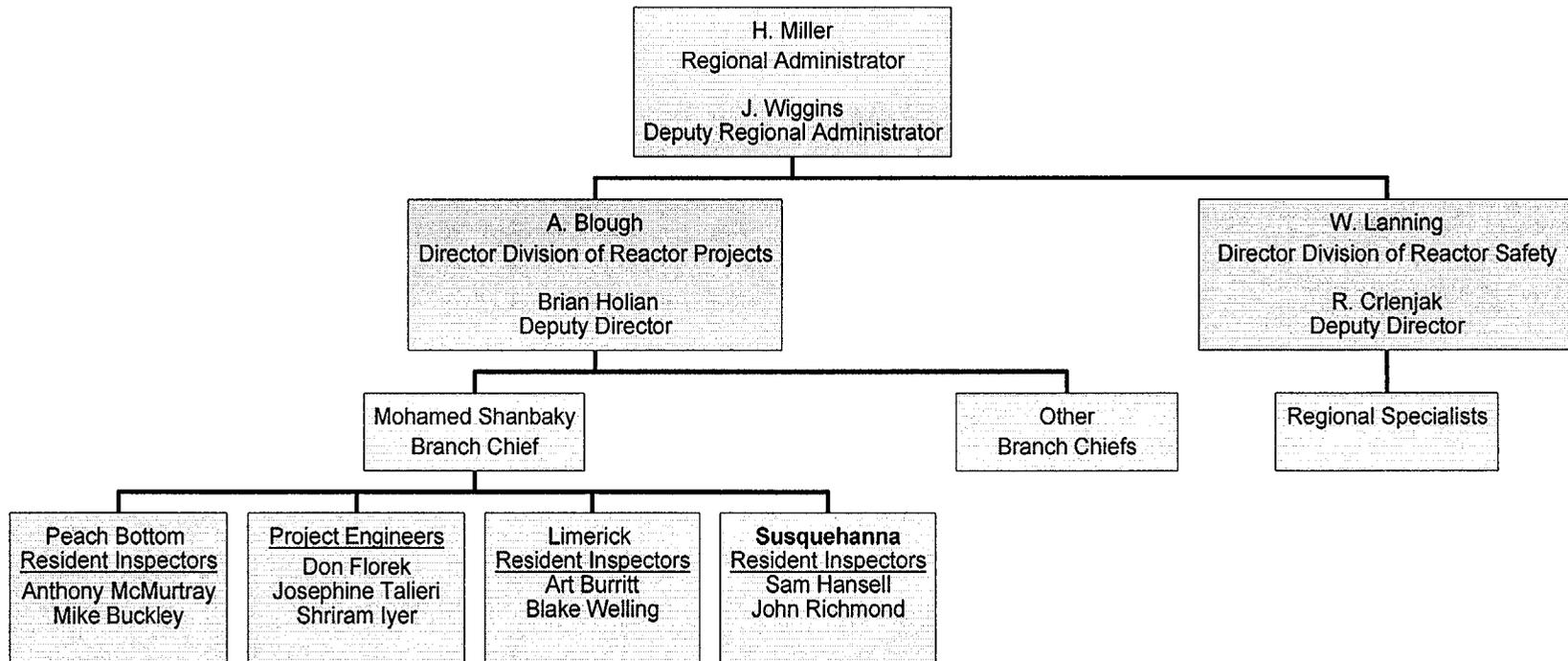
# Agenda

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- Introduction
- Review of Reactor Oversight Process
- Discussion of Plant Performance Results
- Licensee Response and Remarks
- NRC Closing Remarks
- Meeting with the Licensee adjourned
- NRC available to address questions from the public

# Region I Organization

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# NRC Representatives

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- 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

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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/adams.html>
  
- Public Document Room
  - ▶ 1-800-397-4209 (Toll Free)

# NRC Activities

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- 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 Performance Goals

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- 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

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- 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

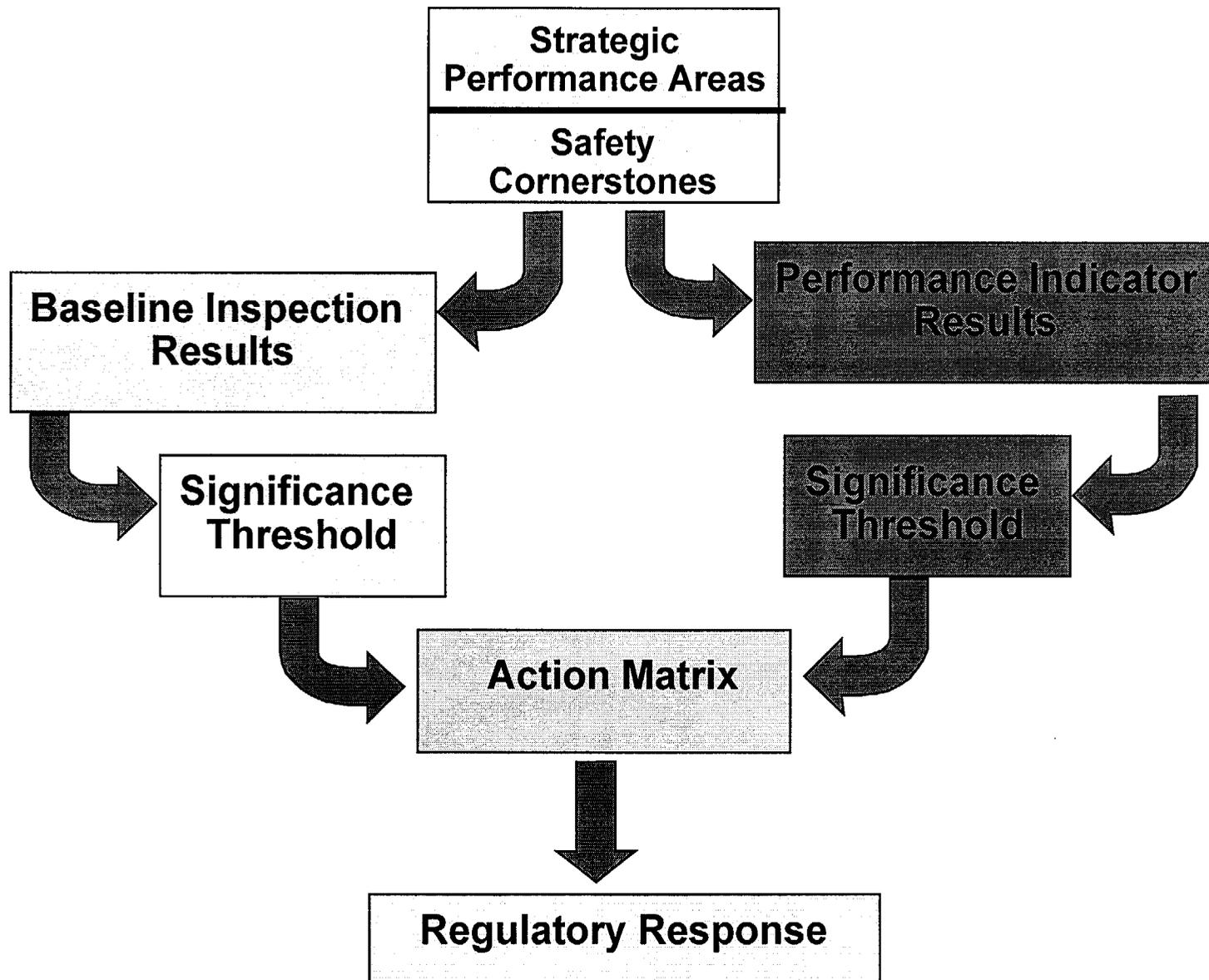
# NRC Response to 9/11

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- Highest Level of Security Maintained
- Comprehensive Review of Security
- Closely Coordinated Response With:
  - Our Licensees
  - FBI
  - Military, State, and Local Agencies
  - Intelligence Communities
- Issued Security Advisories
  - Increased Patrols
  - Augmented Security Capabilities
  - Added Barriers and Posts
  - More Limited Access
  - Enhanced Security Awareness
- Issued Order on Security
- NRC Monitoring Enhanced Security

# Reactor Oversight Process

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# Examples of Baseline Inspections

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- Equipment Alignment ~ 70 hrs/yr
- Annual Fire Protection ~ 35 hrs/yr
- Triennial Fire Protection ~200 hrs every 3 yrs
- Operator Response ~ 125 hrs/yr
- Plant security ~40 hours/yr
- Emergency preparedness ~60 hrs/yr
- Rad release controls ~100 hrs every 2 years
- Worker radiation protection ~125 hrs/year
- Corrective action program ~10% every inspection
- Corrective action program ~200 hr every 2 yrs

# Significance Threshold

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## 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

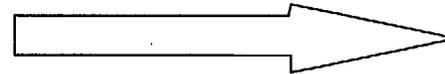
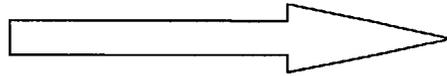
Red:

High safety issue

# Action Matrix Concept

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<b>Licensee Response</b>	<b>Regulatory Response</b>	<b>Degraded Cornerstone</b>	<b>Multiple/Degraded Cornerstone</b>	<b>Unacceptable Performance</b>
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Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions

# Substantive Cross Cutting Issue

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- Common cause of inspection findings
  - ▶ Human performance
  - ▶ Problem Identification and Resolution
  - ▶ Safety conscious work environment
- Multiple inspection findings with a common cause
- Multiple cornerstones
- May be documented in an assessment letter
- Focus licensee and NRC activities

# National Summary of Plant Performance

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End of Calendar Year 2001

Licensee Response	74
Regulatory Response	24
Degraded Cornerstone	4
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0

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Total Plants	103
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# National Summary

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## ■ Performance Indicator Results 4th Qtr Calendar Yr 2001

▶ Green	1834
▶ White	8
▶ Yellow	0
▶ Red:	0

## ■ Total Inspection Findings (April 2001 - December 2001)

▶ Green	660
▶ White	23
▶ Yellow	2
▶ Red	0

# Susquehanna Annual Assessment

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(April 1 - Dec 31, 2001)

- Operated safely
- Fully met all cornerstone objectives
- Regulatory Response Band of Action Matrix
  - One Inspection Finding of low to moderate safety significance (White) in Unit 1 and 2 Emergency Preparedness cornerstone
- All Performance Indicators requiring no additional NRC oversight (Green)
- Supplemental inspection to be repeated

# Susquehanna Inspection Activities

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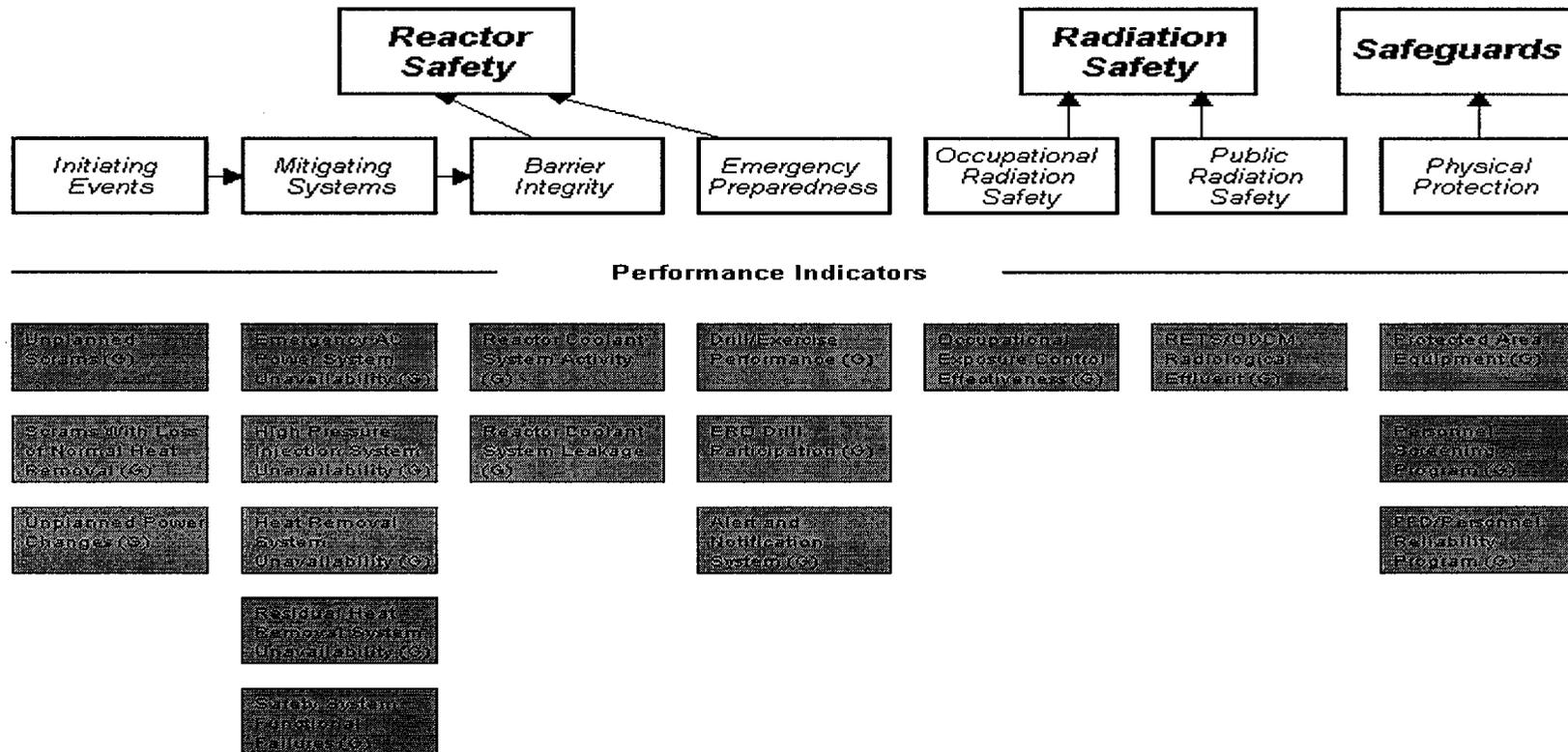
(Jan 1 - Dec 31, 2001)

- ~4500 hours of inspection related activity
- Two resident inspectors performing resident inspections
- 18 inspections by regional inspectors
  - ▶ Includes 2 team inspections
- Inspection Findings
  - ▶ 12 findings of very low safety significance
  - ▶ 1 finding of low to moderate safety significance

# Susquehanna 1 and 2

## Performance Indicators 4Q/2001

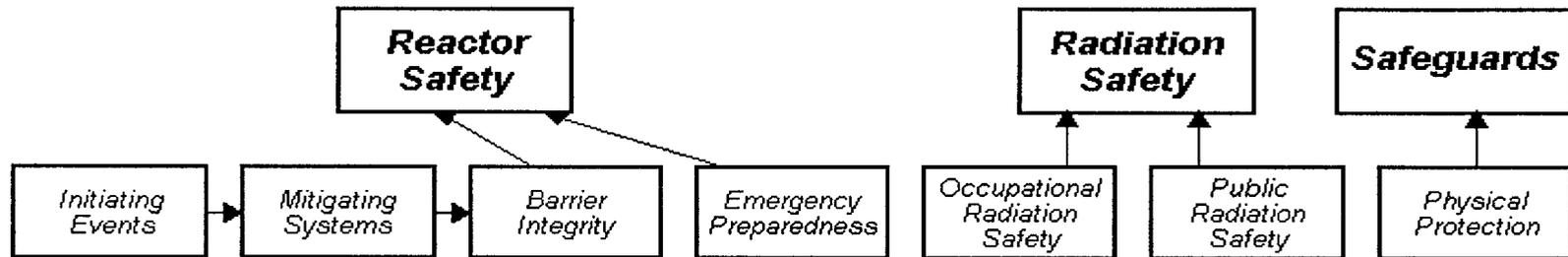
[http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ1/susq1\\_chart.html](http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ1/susq1_chart.html)  
[http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ2/susq2\\_chart.html](http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ2/susq2_chart.html)



# Susquehanna 1

## Inspection Finding Summary

[http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ1/susq1\\_chart.html](http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ1/susq1_chart.html)



### Most Significant Inspection Findings

	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
4Q/2001	No findings this quarter	No findings this quarter	No findings this quarter				
3Q/2001	No findings this quarter	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter
2Q/2001	No findings this quarter	G	No findings this quarter	W (1)	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2001	No findings this quarter	No findings this quarter	No findings this quarter				

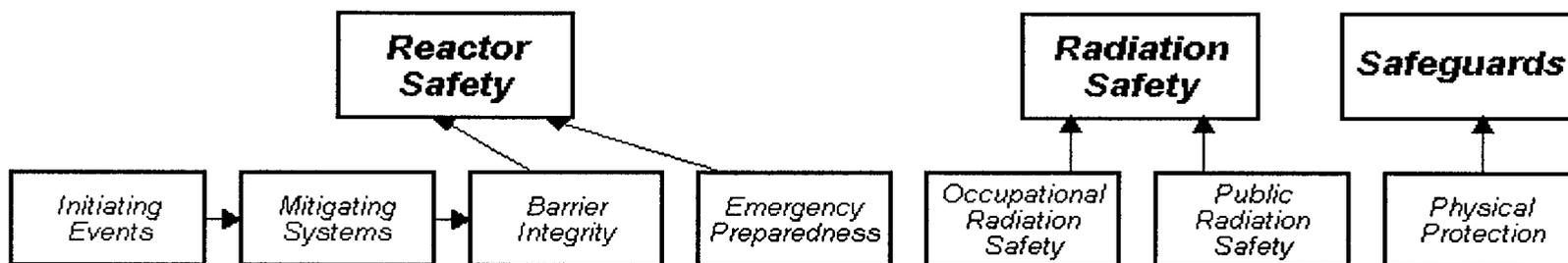
Miscellaneous findings

### Additional Inspection & Assessment Information

# Susquehanna 2

## Inspection Finding Summary

[http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ2/susq2\\_chart.html](http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/SUSQ2/susq2_chart.html)



### Most Significant Inspection Findings

Quarter	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
4Q/2001	No findings this quarter	G	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/2001	No findings this quarter	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter
2Q/2001	No findings this quarter	G	No findings this quarter	W (1)	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2001	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter

Miscellaneous findings

### Additional Inspection & Assessment Information

# Emergency Preparedness Cornerstone

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- Unit 1 and 2 White finding - September 2001
  - ▶ Did not maintain minimum on-shift staffing in accordance with PPL's emergency plan
- NRC performed supplemental inspection in Jan 2002
  - ▶ PPL's evaluation of issue not sufficient
  - ▶ PPL did not fully understand:
    - Root causes
    - Performance problems
  - ▶ Corrective actions may not be effective
- NRC plans to repeat supplemental inspection