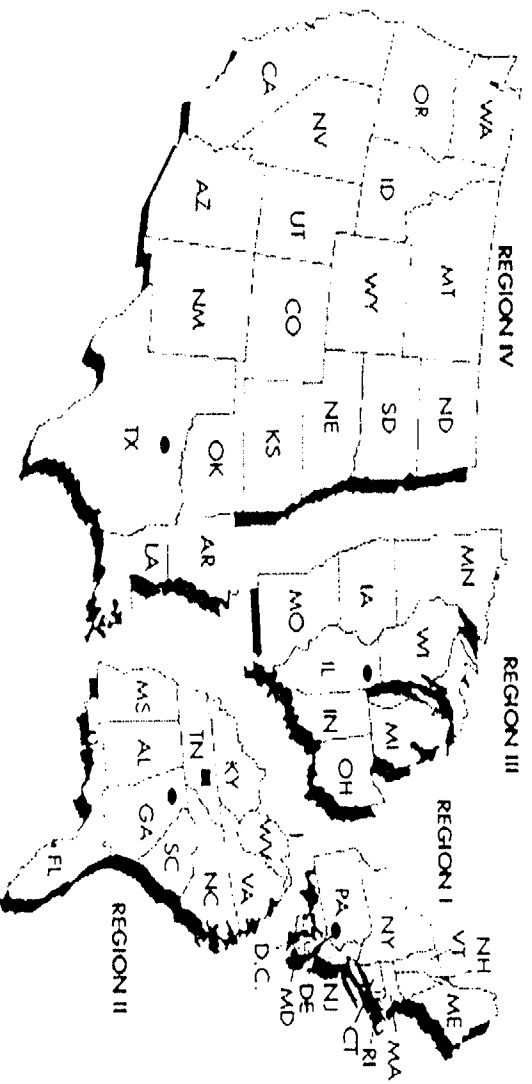




# **Nuclear Power Plant Oversight Program**

Division of Reactor Projects, NRC, Region IV

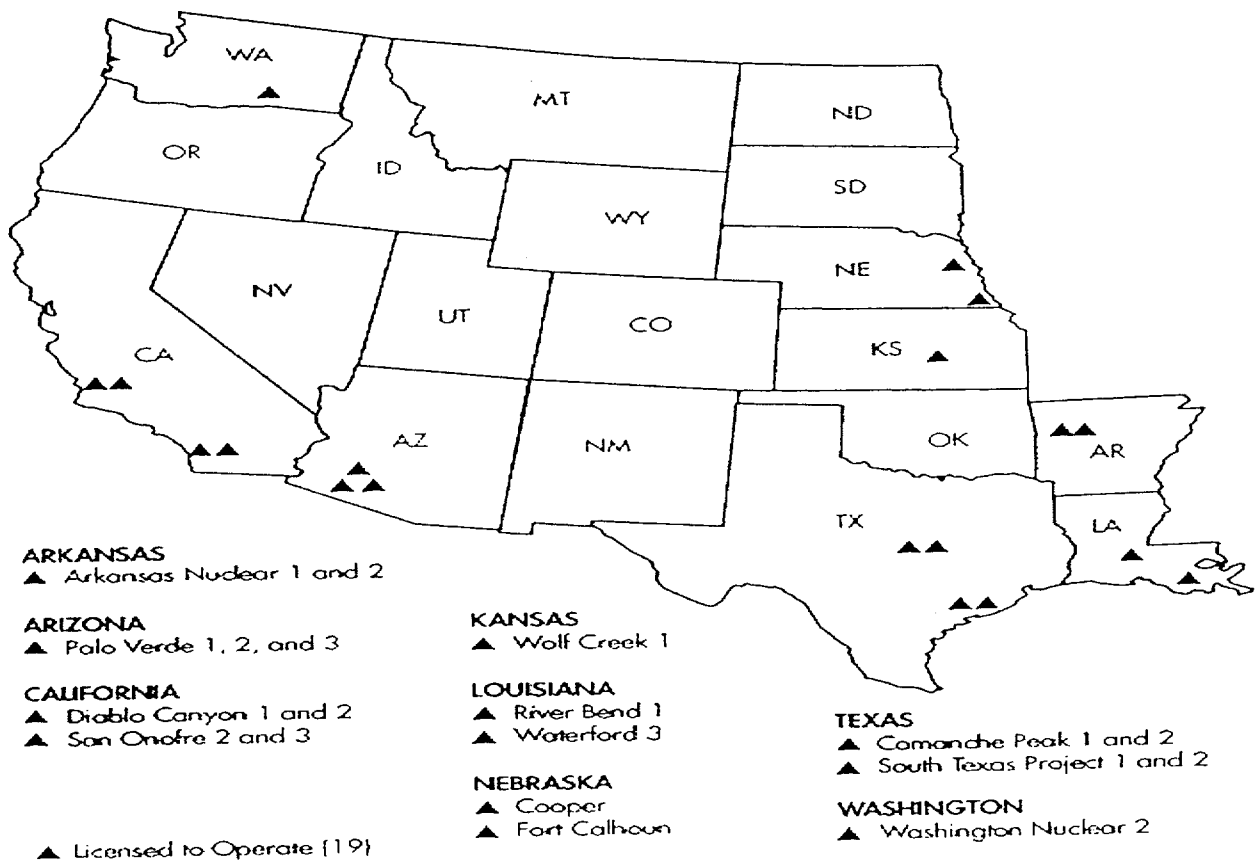
# NRC Regions



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

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

# Region IV Power Reactors



# **Overview for this evening**

- **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**

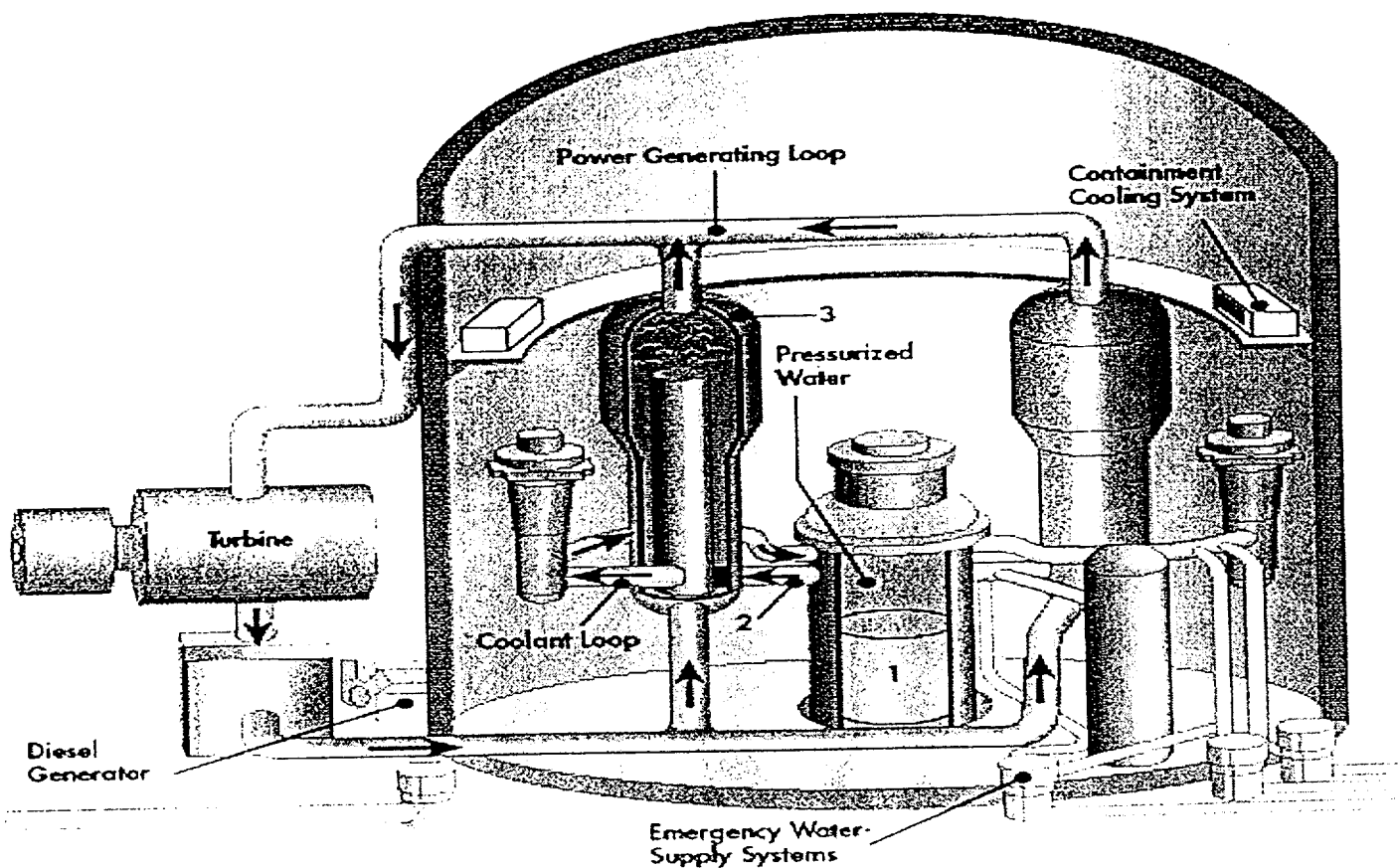
## **Who we are....**

- The Nuclear Regulatory Commission is a Federal Government agency with the mission of ensuring adequate protection of the public health and safety as it relates to the peaceful use of nuclear materials in the United States.

# 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.
- Ensure that research provides the technical bases for sound rules and regulations.

# A Typical Power Reactor

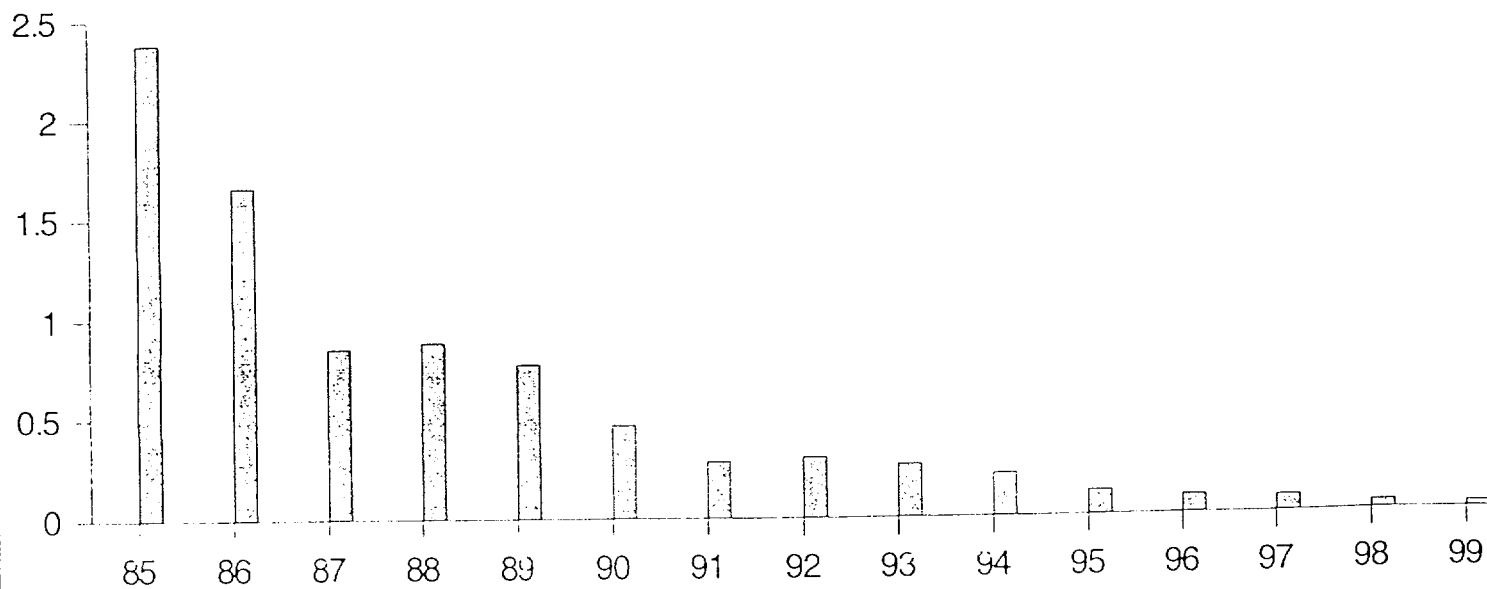


# Performance Trends

## Maintaining Safety

- Goal - No Statistically Significant Adverse Industry Trends in Safety Performance

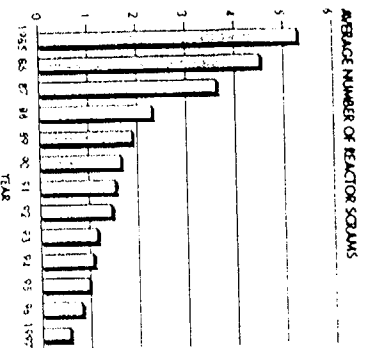
### Average Number of Significant Events



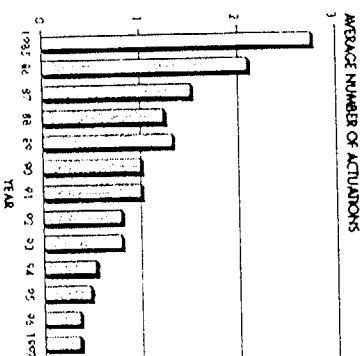
# Industry Performance Indicators

NRC Performance Indicators: Annual Industry Averages, 1985-1997\*

## AUTOMATIC SCRAMS WHILE CRITICAL

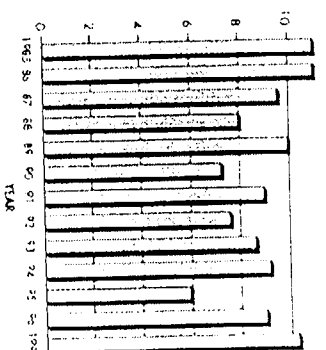


## SAFETY SYSTEM ACTUATIONS

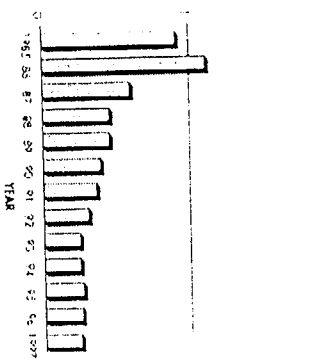


## FORCED OUTAGE RATE

AVERAGE FORCED OUTAGE RATE (%)

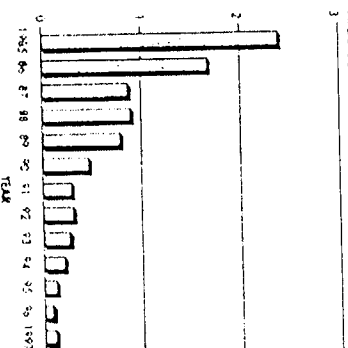


## EQUIPMENT-FORCED OUTAGES PER 1000 CRITICAL HOURS



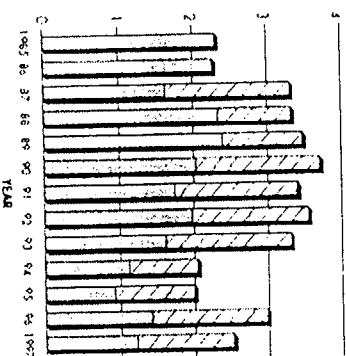
## SIGNIFICANT EVENTS

AVERAGE NUMBER OF SIGNIFICANT EVENTS



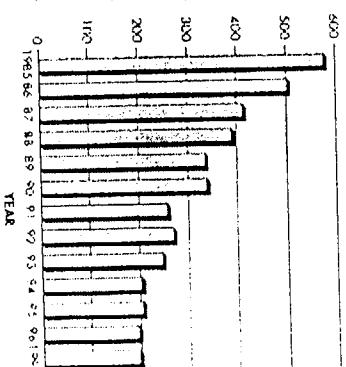
## SAFETY SYSTEM FAILURES\*\*

AVERAGE NUMBER OF FAILURES



## COLLECTIVE RADIATION EXPOSURE

AVERAGE MAN-REM



\* Calendar year values are used for 1985 through 1995. Fiscal year values are used beginning in 1996. Data for October 1, 1995, through December 31, 1995, are included in both calendar year 1995 and fiscal year 1996 values. Refer to Appendix F for values.

\*\* The hatched areas represent additional data that resulted from redissolution of safety system failures.

Note: Data represent overall industry averages, with plants in extended shutdown excluded. Data are rounded for display purposes. These data may differ slightly from previously published data as a result of refinements in data quality.

Source: Licensee data as compiled by the Nuclear Regulatory Commission

# **Current Oversight of Nuclear Power Plants Reflect:**

- Maturing industry,
- Maturing technology,
- Improved plant performance,
- Improved regulatory tools.

## **Four Key NRC Objectives Of NRC Oversight**

- Maintain safety
- Enhance public confidence
- Improve effectiveness and efficiency
- Reduce unnecessary regulatory burden

# **Our revised process . . .**

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

# **KEY ASPECTS OF THE NEW PROCESS**

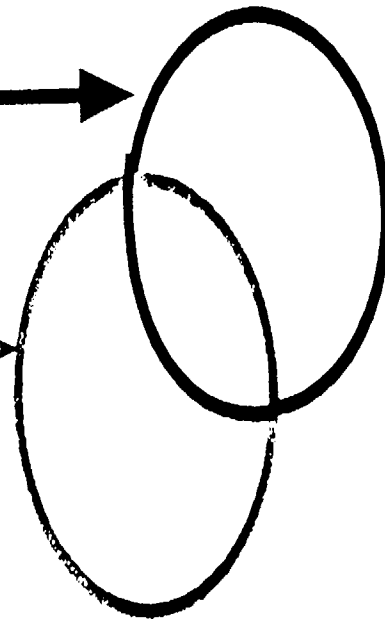
- **Baseline Inspection Program**
- **Performance Indicators**
- **Thresholds for Action**
- **Action Matrix**
- **Enforcement outcome**

# ASSESSING PERFORMANCE

- Objective Indicators









- Inspection Program



# Assessment - Inspection Findings

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

	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Physical Protection
Most Significant Inspection Findings							
4Q/1999				No findings this quarter	No findings this quarter	No findings this quarter	No findings this quarter
3Q/1999	Findings without color designation		No findings this quarter	No findings this quarter			No findings this quarter

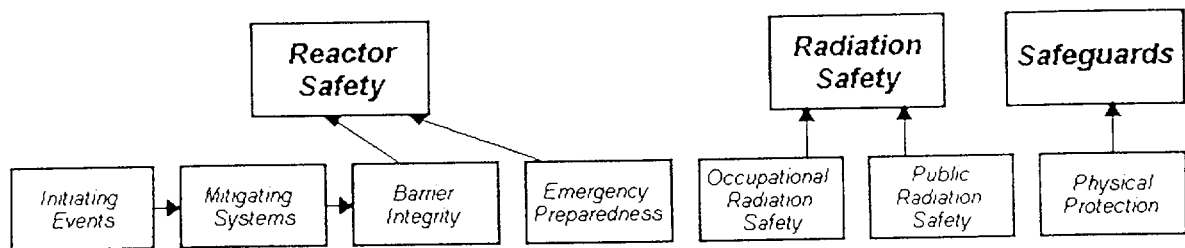
[Click here for miscellaneous findings](#)

## Additional Inspection & Assessment Information

### Assessment Letters:

- Mid-cycle review thru 10/1999

# Assessment - Performance Indicators



## Performance Indicators

Unit Safety Performance	Emergency System Availability	Reactor System Availability	Emergency Preparedness	Occupational Radiation Safety	Public Radiation Safety	Protected Area Equipment
Reactor System Availability	Emergency System Availability	Reactor System Availability	Emergency Preparedness			Emergency System Availability
Emergency System Availability	Emergency System Availability	Reactor System Availability	Emergency Preparedness			Emergency System Availability
	Emergency System Availability					

# **NRC Oversight Program**

Internet address

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

# **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**

- **More information, more often, 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 and opportunity to provide input
- 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)

