



“The Way We Are”

Chairman Nils J. Diaz
U.S. Nuclear Regulatory Commission

at the

Nuclear Energy Assembly
San Francisco, California
May 18, 2006

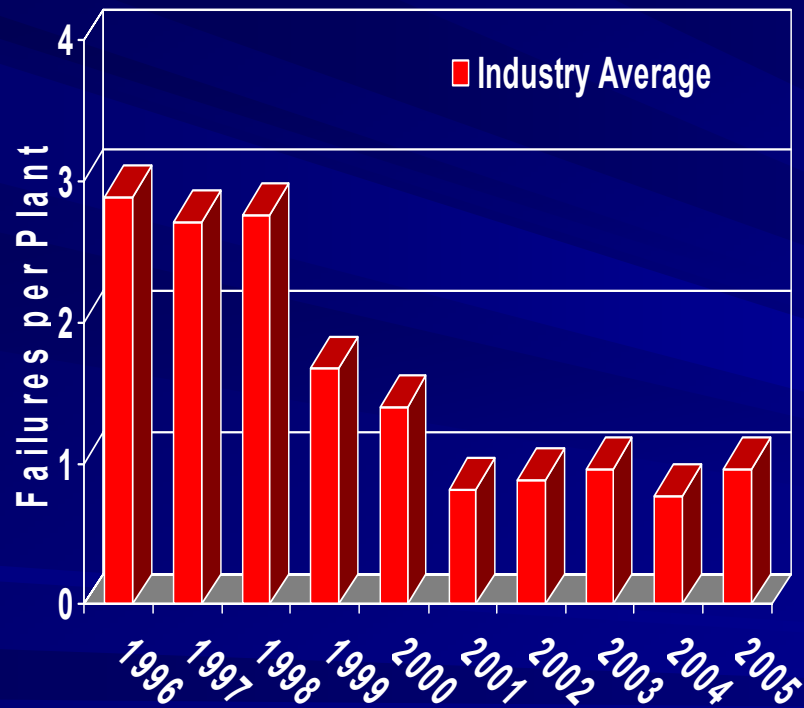
New Plant Licensing Applications

An Estimated Schedule

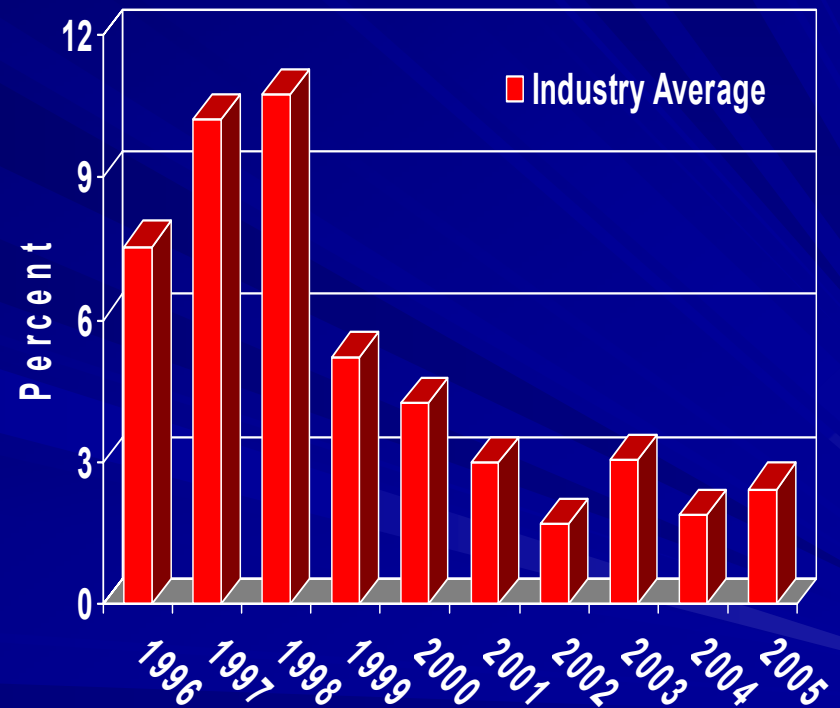


Industry Performance: (Safety System Failures and Forced Outages)

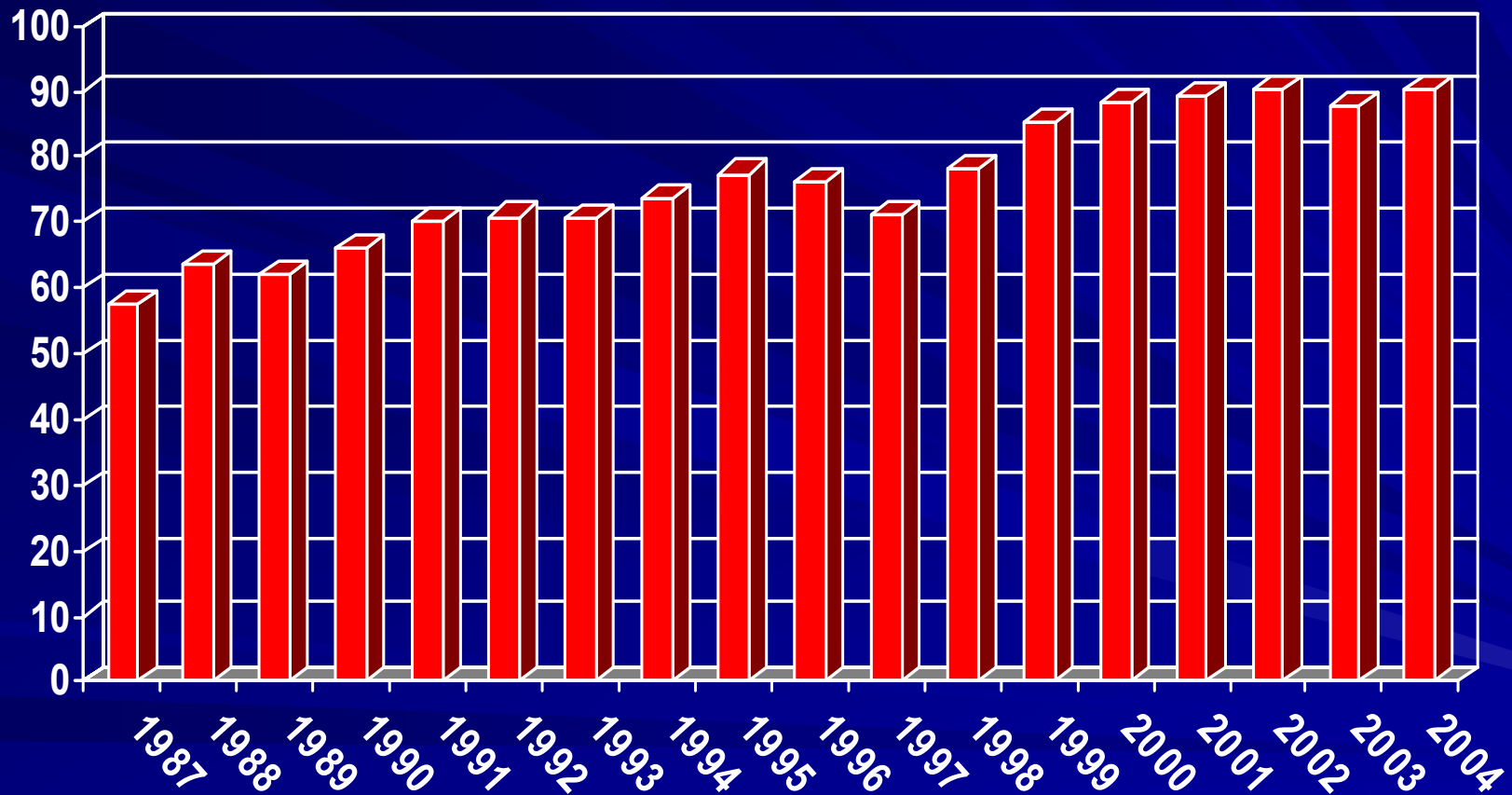
Safety System Failures



Forced Outage Rate

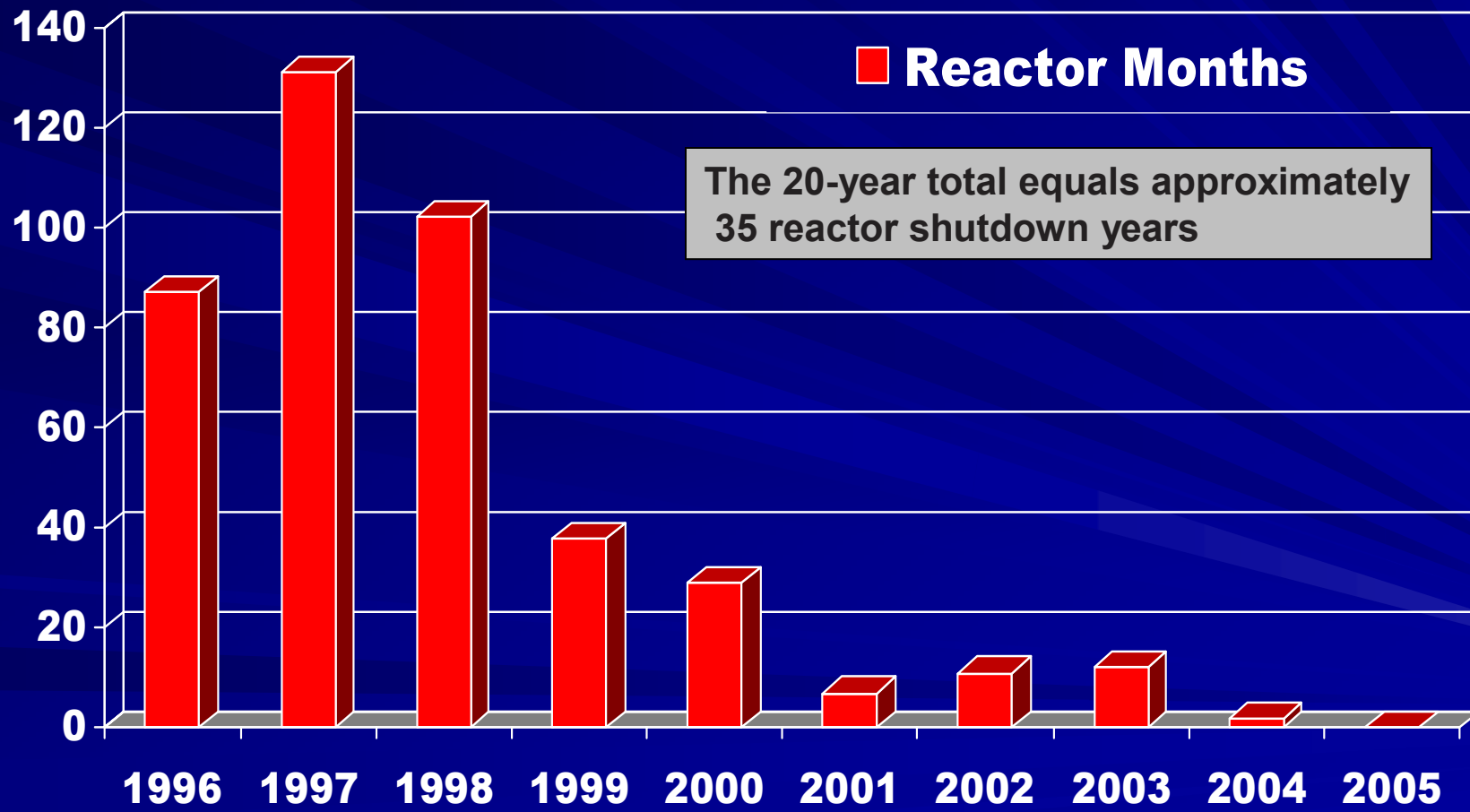


Reliability: Percent Capacity Factor



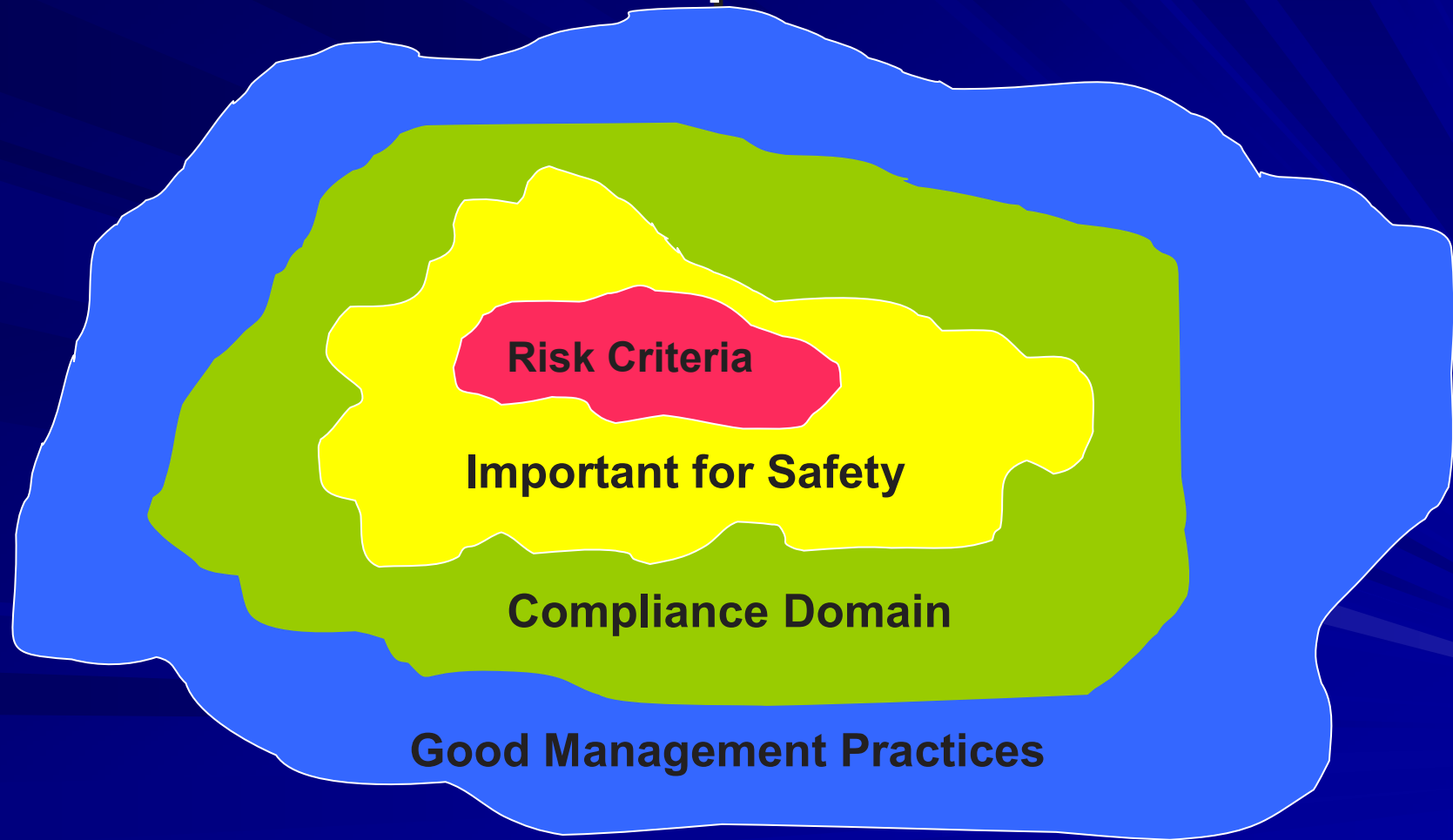
Source: DOE/EIA Monthly Energy Review

Operating Experience: Unplanned Reactor Shutdowns (6 months or longer)



Safety and Compliance...

It was Compliance vs. Safety



10 CFR 50.59

“Minimal Increase Principle”

- “probability of ... may increase”
- “possibility for ... may be created”
- “margin of safety ... is reduced”



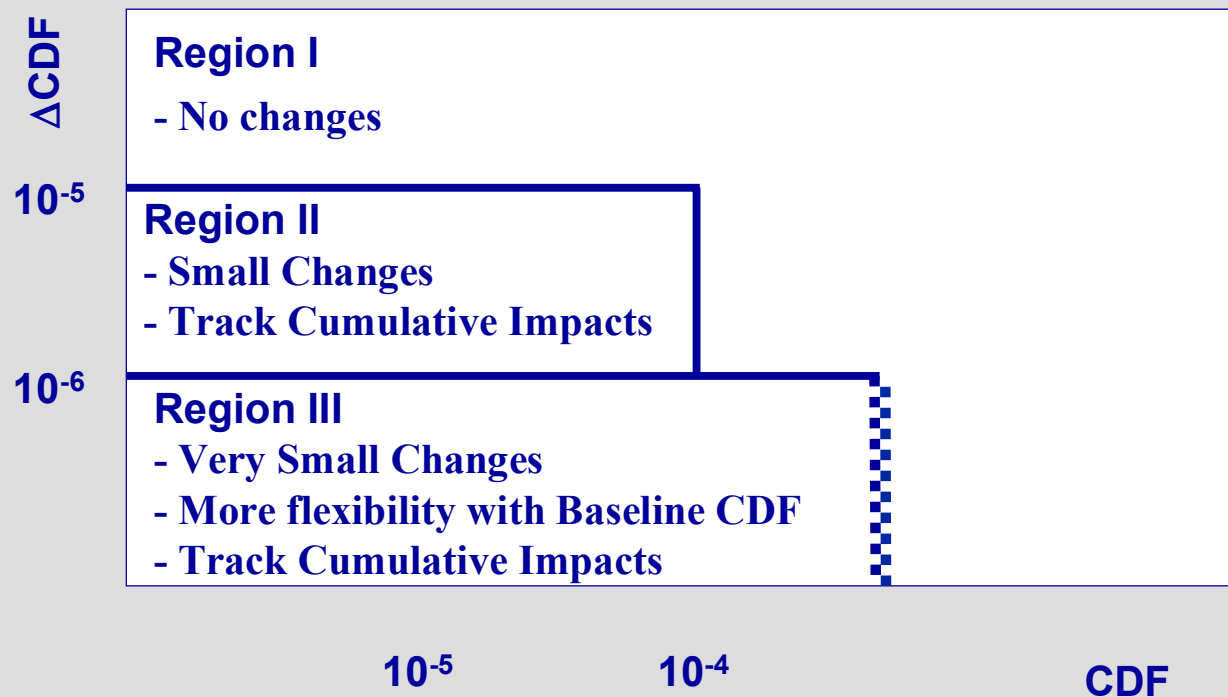
- “would result in more than minimal increase....”
- “would create....”
- “would result in...limit...being exceeded....”
- “would result in departure from a method....”

- Risk-informed changes are enabling shorter, more safety focused outages.
- The risk-informed Maintenance Rule provides for safer configuration controls during plant operation and maintenance.

Reactor Oversight Process

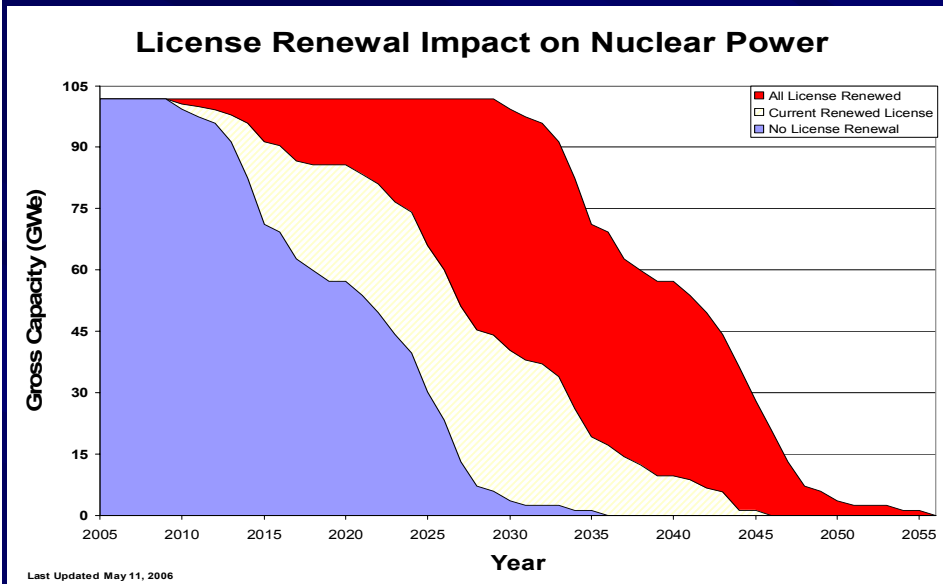
	Pre-ROP	ROP	Improvements
Inspections	Core/Reactive	Baseline/ Supplemental	Risk-informed/ Predictable
Performance Metrics	NONE	Performance Indicator/Self-Assessment Programs	Understandable/ Objective
Assessment	SALP (performed once every 12 to 18 months)	Action Matrix (continuous)	Understandable/ Objective
Significance Determination of Inspection Findings	Enforcement	Significance Determination Process (SDP)	Risk-informed, understandable, predictable, and repeatable

Regulatory Guide 1.174 enables the use of risk insights and information in the licensing process



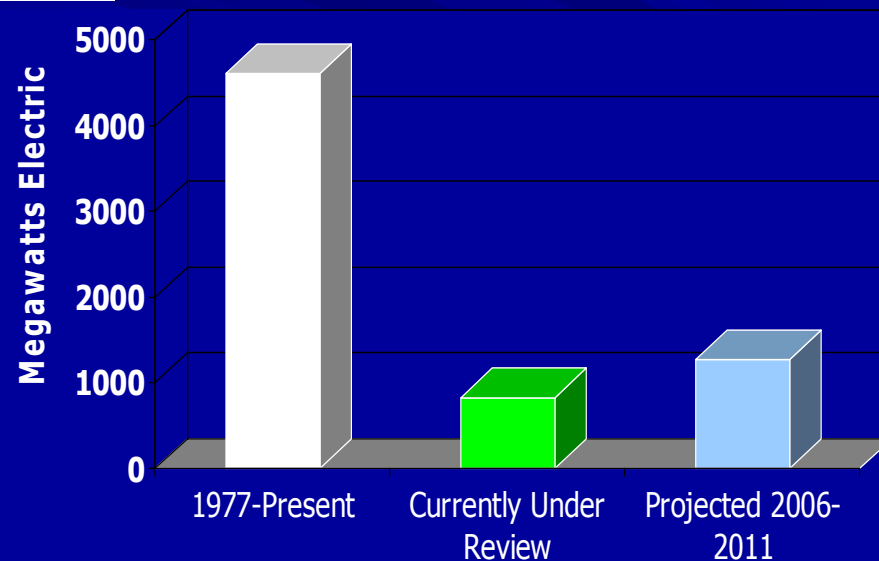
Acceptance Guidelines for Core Damage Frequency

License Renewals and Power Uprates



- 42 licenses renewed
- Equivalent to 840 reactor years

- 108 power uprates approved
- Added about 4600 MWe
- Equivalent to more than 4 new reactors



Efficient Adjudication

- 1998 policy statement promoted efficient adjudicatory proceedings on license renewals and license transfers.
- 2004 revision of NRC's rules of practice in Part 2.
- Established model schedules for more effective and efficient adjudication.

New Reactor Licensing (10 CFR Part 52 – Proposed)

- Proposed changes to facilitate improved plant licensing process, including amending design certification rules.
- Changes proposed to the limited work authorization process.

Special Treatment Requirements (10 CFR 50.69)

- Ranks and treats structures, systems, and components in accordance with their safety significance.

Risk-Informed Alternative to Fire Protection Requirements (10 CFR 50.48)

- Appendix R or NFPA-805?
- A chance for closure on fire protection issues.

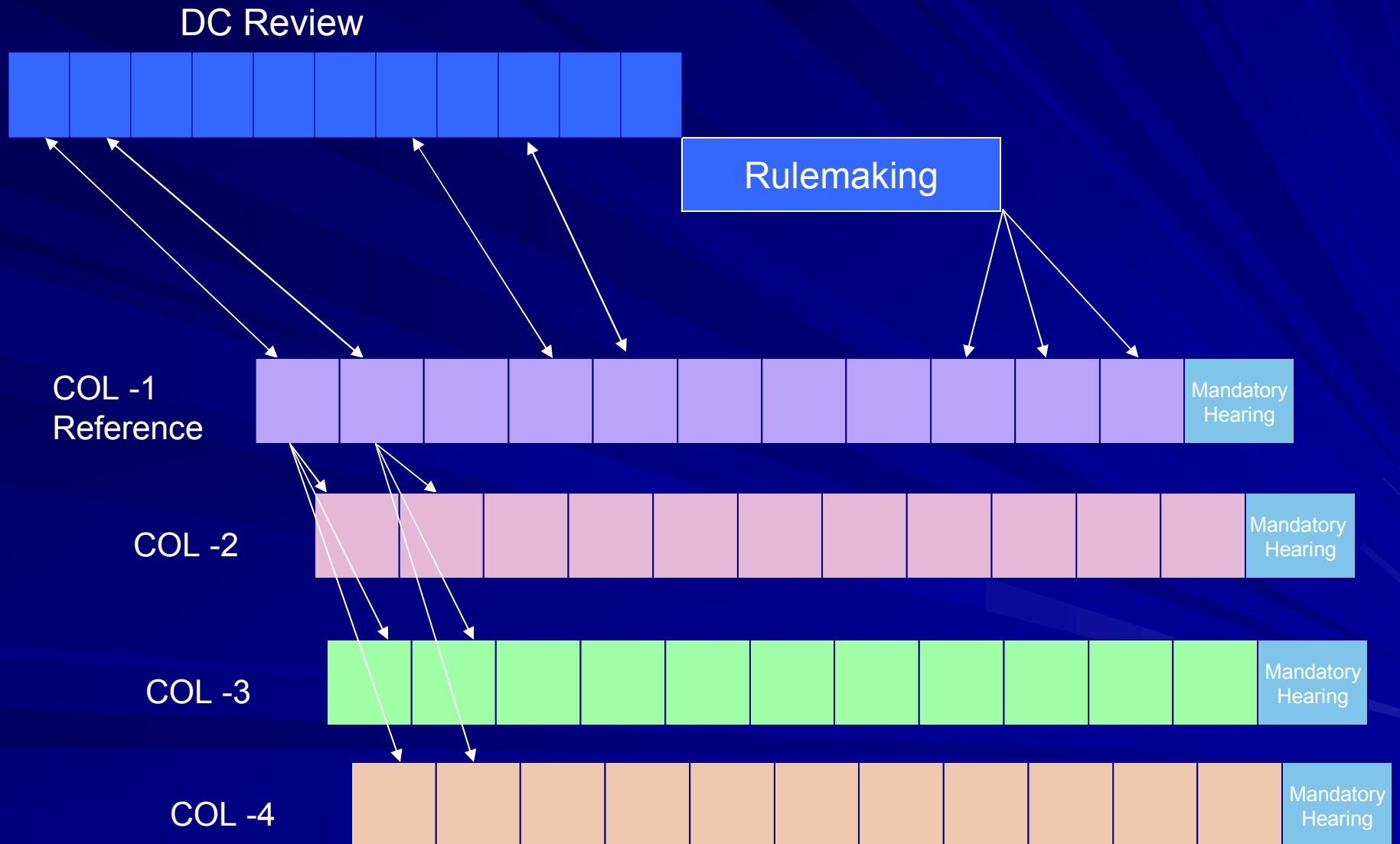
LOCA Break Size (10 CFR 50.46a)

- A risk-informed option for the Large Break LOCA.
- A truly significant risk-informed addition to our regulations.

Safety, Security, and Emergency Preparedness

- NRC has integrated safety, security, and emergency preparedness.
- Extraordinary efforts of almost 5 years have paid off: U.S. nuclear power plants are being operated safely and securely.

Design-Centered Review Approach



Quality of Applications: No application should be submitted before its time

- An effective, efficient, transparent, and predictable licensing process will rely on:
 - ✓ high quality applications at the front-end
 - ✓ appropriate use of requests for information throughout
 - ✓ holding applicants and the NRC accountable on both of these points
- “high quality” not “perfect”

Does the application contain the necessary and sufficient information for the review to be finished in a timely manner?