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# Near Death: The Birth of the Reactor Oversight Process

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# A BRIGHTER TOMORROW



FULFILLING  
THE PROMISE OF  
NUCLEAR ENERGY

★  
**SENATOR PETE V. DOMENICI**

Sen. Pete Domenici



Chairman Shirley Jackson



- Three Mile Island and Oversight
  - Resident Inspector Program
  - Systematic Assessment of Licensee Performance (SALP)
- Davis-Besse (1985): Assessing Safety Culture?
  - “Wake Me If It’s a Meltdown”: Peach Bottom and Browns Ferry
  - Senior Management Meetings
  - The Watch List
  - Diagnostic Evaluation Teams



### Significant Events

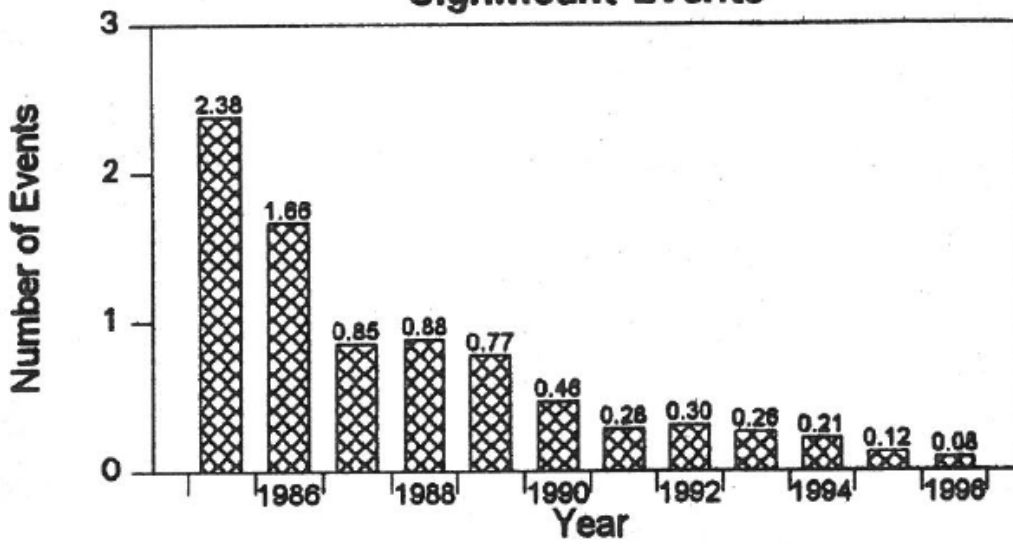




Figure 1: The History of NRC's Watch List

Number of plants

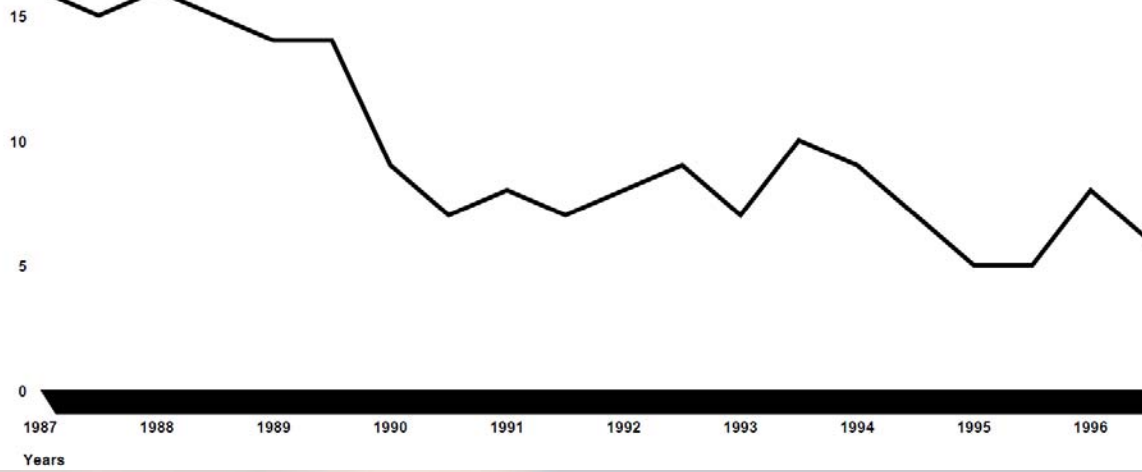
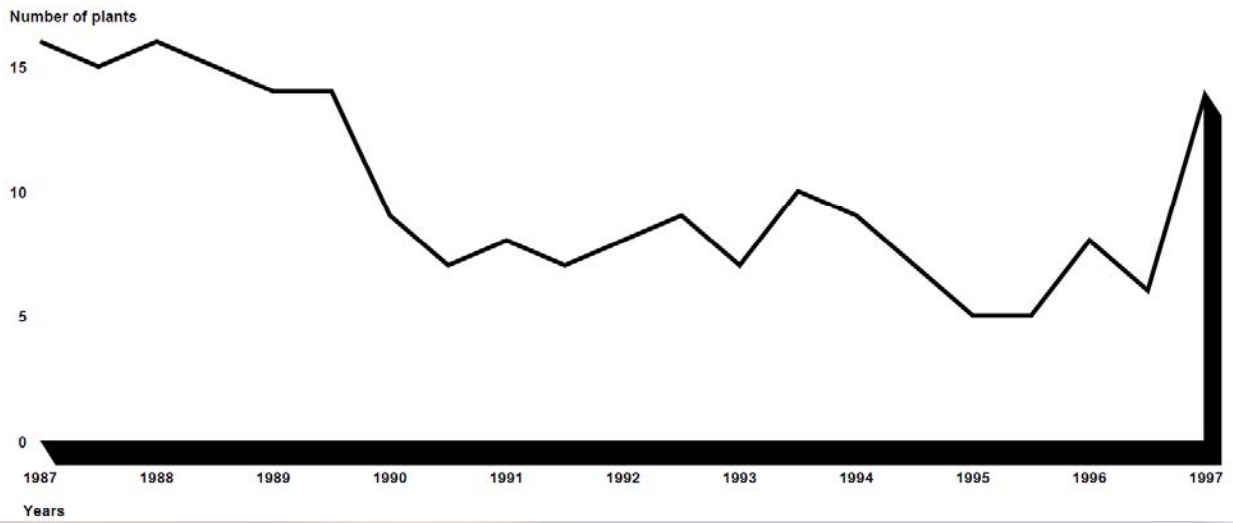




Figure 1: The History of NRC's Watch List





## The Adversarial Relationship

- “We don’t trust you. You don’t trust us”
- Towers Perrin Report (1994): SALP’s “subjective” assessments
- Deregulation

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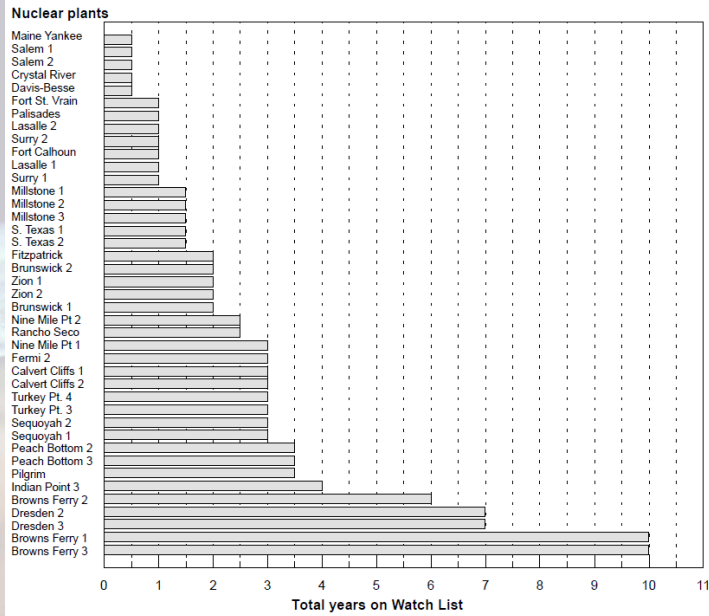
- Toward a New Oversight Process
  - Fleetwide Performance
  - Maintenance Rule—Performance Based, Risk “Based”
  - Millstone and Maine Yankee





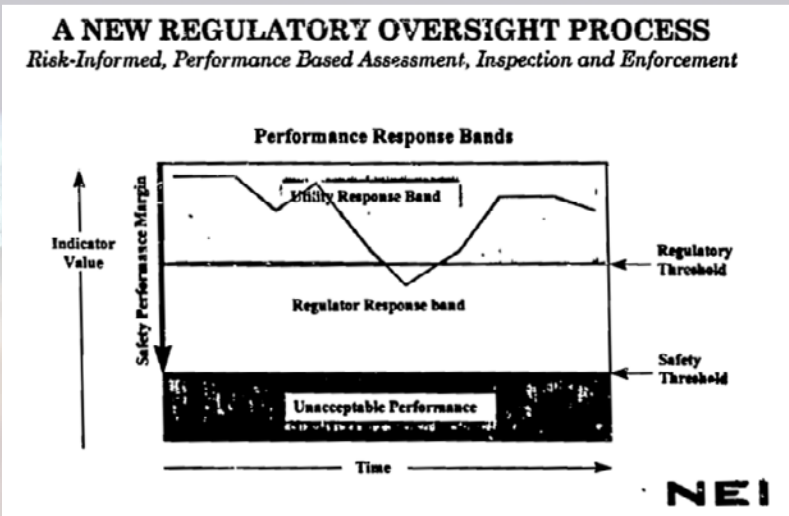


Figure 2: The Nuclear Plants on NRC's Watch List





# Nuclear Energy Institute's Reactor Oversight Process Proposal (July 1998)





## Safety Performance Assessment Indicators

TIER	PERFORMANCE EXPECTATIONS	SAFETY PERFORMANCE INDICATORS			
<b>TIER I</b> PUBLIC HEALTH AND SAFETY	<b>BARRIER INTEGRITY</b>	<b>REACTOR COOLANT SYSTEM ACTIVITY</b>	<b>REACTOR COOLANT SYSTEM BOUNDARY</b>	<b>CONTAINMENT INTEGRITY</b>	
<b>TIER II</b> MARGIN TO SAFETY	<b>OPERATING CHALLENGES</b>	<b>TOTAL SCRAMS</b>	<b>SAFETY SYSTEM ACTUATIONS</b>	<b>SHUTDOWN OPERATING MARGIN</b>	<b>OPERATING TRANSIENTS &gt; 15%</b>
	<b>MITIGATION CAPABILITY</b>	<b>SAFETY SYSTEM PERFORMANCE INDICATOR</b>		<b>MAINTENANCE RULE HIGH RISK SIGNIFICANT SSC PERFORMANCE</b>	
<b>TIER III</b> OVERALL PLANT PERFORMANCE	<b>PLANT PERFORMANCE TREND</b>				

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- Slide 2: Senator Pete V. Domenici, *A Brighter Tomorrow: Fulfilling the Promise of Nuclear Energy* (Lanham, MD: Rowman and Littlefield, 2004), cover; Honorable Dr. Shirley Ann Jackson, Commissioner, <https://www.nrc.gov/about-nrc/organization/commission/former-commissioners/jackson.html>.
- Slide 4: U.S. Nuclear Regulatory Commission, *1996 NRC Annual Report*, NUREG-1145, Vol. 13 (DC: U.S. Government Publishing Office, 1997), 77.
- Slides 5, 6, and 9: U.S. Government Accountability Office (GAO), *Nuclear Regulation: Preventing Problem Plants Requires More Effective NRC Action*, GAO/RCED-97-145 (DC: GAO, 1997), 8–9.
- Slide 8: Eric Pooley, “Nuclear Warriors,” *Time*, March 4, 1996, cover.
- Slides 10–11: “Minutes of the July 28, 1998 Meeting with the Nuclear Energy Institute to Discuss Performance Indicators and Performance Assessment,” July 30, 1998, NRC Agencywide Documents Access and Management System Legacy Library, Accession No. 9808070228.