U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Measuring Success in the Fuel Cycle

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Overview

- Welcome
- Times change; mission constant
- Performance management
- Related topics
  - Safety Culture
  - Fuel Cycle Oversight
  - Integrated Safety Analyses

Times Change; Mission Constant

2006

2007

2008

2009

2010

2011

Performance Management

- Important to define success and measure performance
- "*All you need is ignorance and confidence and the success is sure*" – Mark Twain
- "*What gets measured gets done*" – Tom Peters

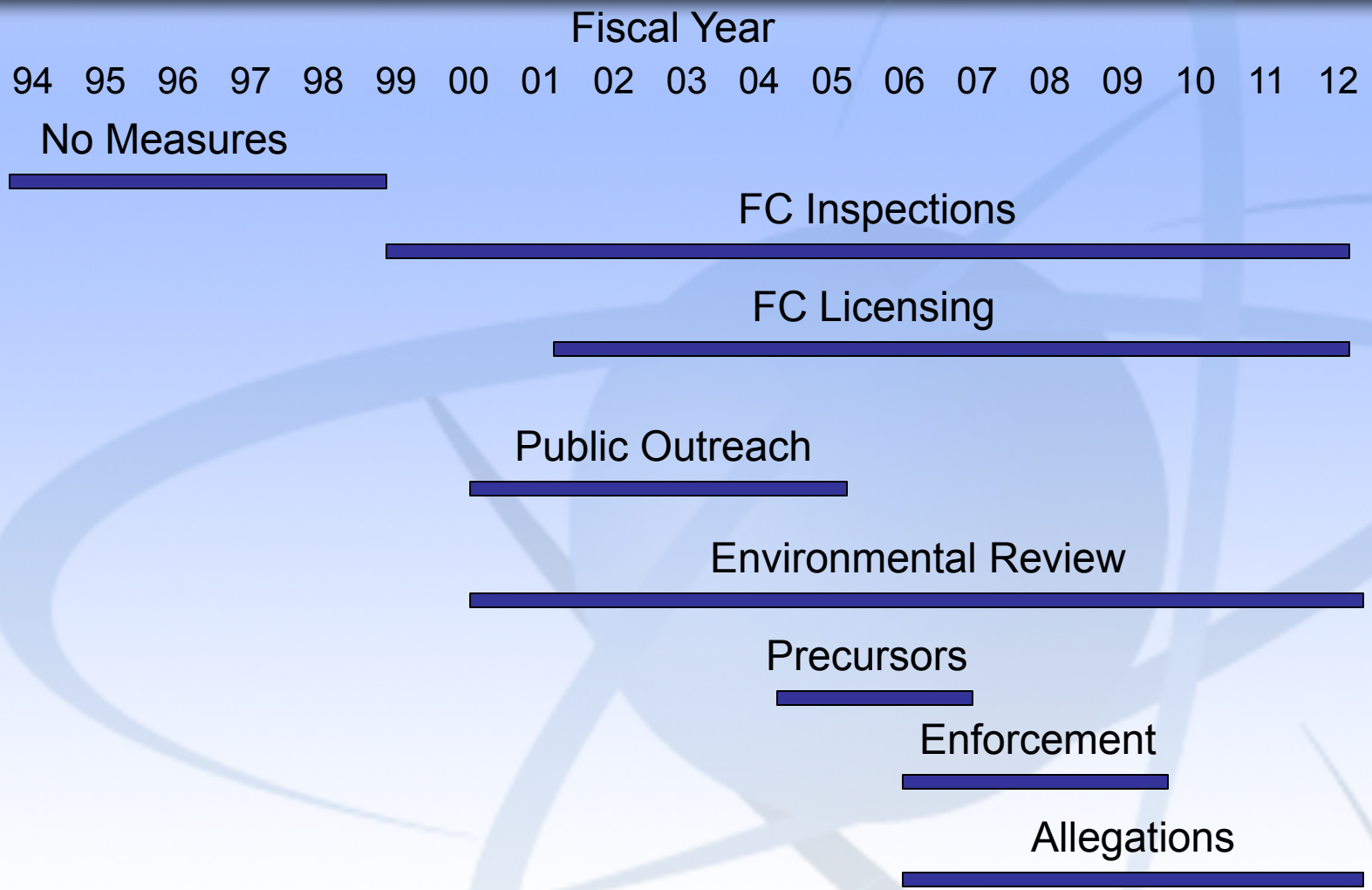
Government Performance and Results Act (GPRA)

- Enacted in 1993
- Required agencies to set goals, measure results, report progress
- NRC promptly implemented
  - Baseline assessment of work
  - Strategic plan
  - Performance plan
  - Operating plan

Materials Safety Goals and Measures

- Tracking began in FY98
- Similar to Reactor and Waste goals and measures
  - No radiation-related deaths
  - No radiation exposures or releases with significant adverse impacts
  - No accidental criticality
  - No loss, theft, or diversion of formula quantities
  - No environmental impacts greater than estimated

FC Performance Measures



Early Performance Management

- FY94 – 98
- Activity based
- Success determined through fulfillment of commitments
  - Rulemakings
  - Guidance
  - License reviews
  - Inspections completed
- Pass/Fail approach
- Limited utility in measuring performance

Fuel Cycle Inspections

- FY99 – Present
- Track completion of inspections
  - Modules as scheduled
  - Number of modules as scheduled
  - No greater than X% overdue
- Generally met each year

Fuel Cycle Licensing

- FY01 – Present
- Tracked completion of licensing work
- Evolved through time
  - Complete ≥ 75% (80%) licensing reviews within 180 days; 100% w/in 3 (2) years
  - Complete number of complex and routine actions
  - Complete actions in a timely manner
- Generally met each year (except 2007)

Other Measures

- FY2000 – FY2005 – Public outreach
- FY2000 – Present – Environmental reviews
- FY2004 – FY2007 – Occurrence of risk-significant precursors
- FY2006 – FY2009 – Timeliness of enforcement actions
- FY2006 – Present – Timeliness of allegation reviews

Lower Tier Measures

- Tracked in Operating Plans
- Include intermediate milestones and specific projects
- Performance "rolls up" to higher level output and performance measures
- Tracked at branch and division level

Challenges

- Quality and completeness of applications
- Delays in responses to RAIs
- More comments or more complex than expected
- Changes in licensing schedules
- Interpretation issues

Performance Improvements

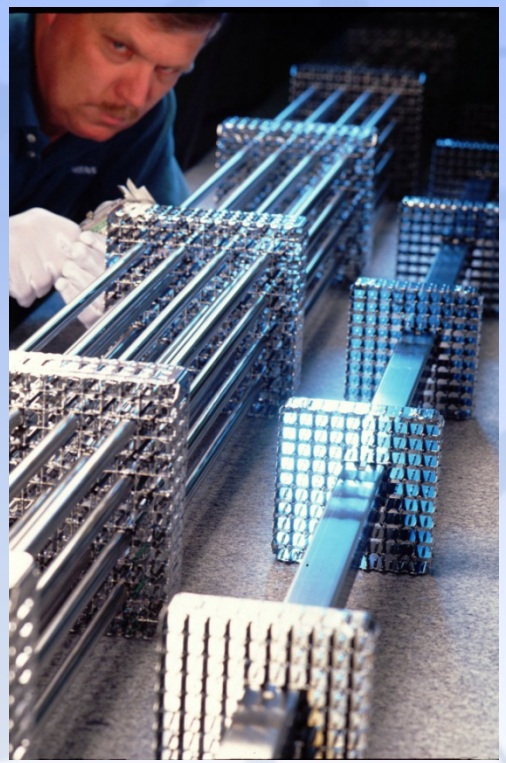
- Licensing process improvement review – using Lean Six Sigma (2010)
  - Improve effectiveness of kick-off meetings
  - Enhance process for assignment of work
  - Develop checklist for preparing RAIs and for site visits
  - Standardize concurrence process
  - Enhance internal guidance, including Greater than Critical Mass licensing
  - Develop criteria for measuring review quality

GPRA Modernization Act

- Enacted by Congress in late 2010
- Shifts attention from reporting results to using goals and measures to improve effectiveness and efficiency
- Quarterly reviews of performance
- Greater cooperation across the government
- Emphasizes more dynamic, accessible, and useful performance information
- EDO serves as Chief Operating Officer

Related Topics

- Safety Culture
- Fuel Cycle Oversight
- ISA Upgrades



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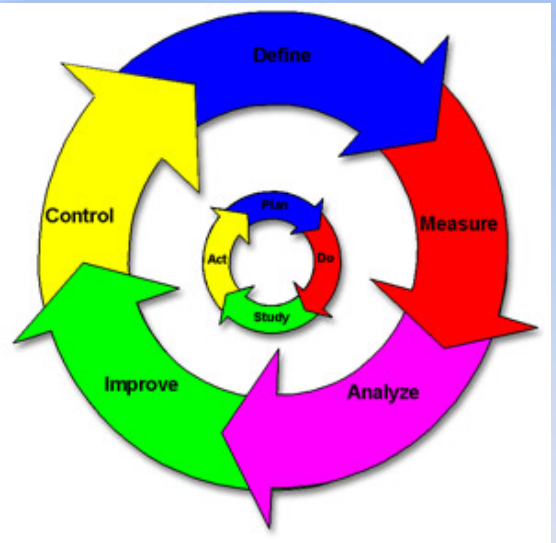
- Thanks for your participation, suggestions, and feedback