

Institutionalizing NRC'S Lessons Learned

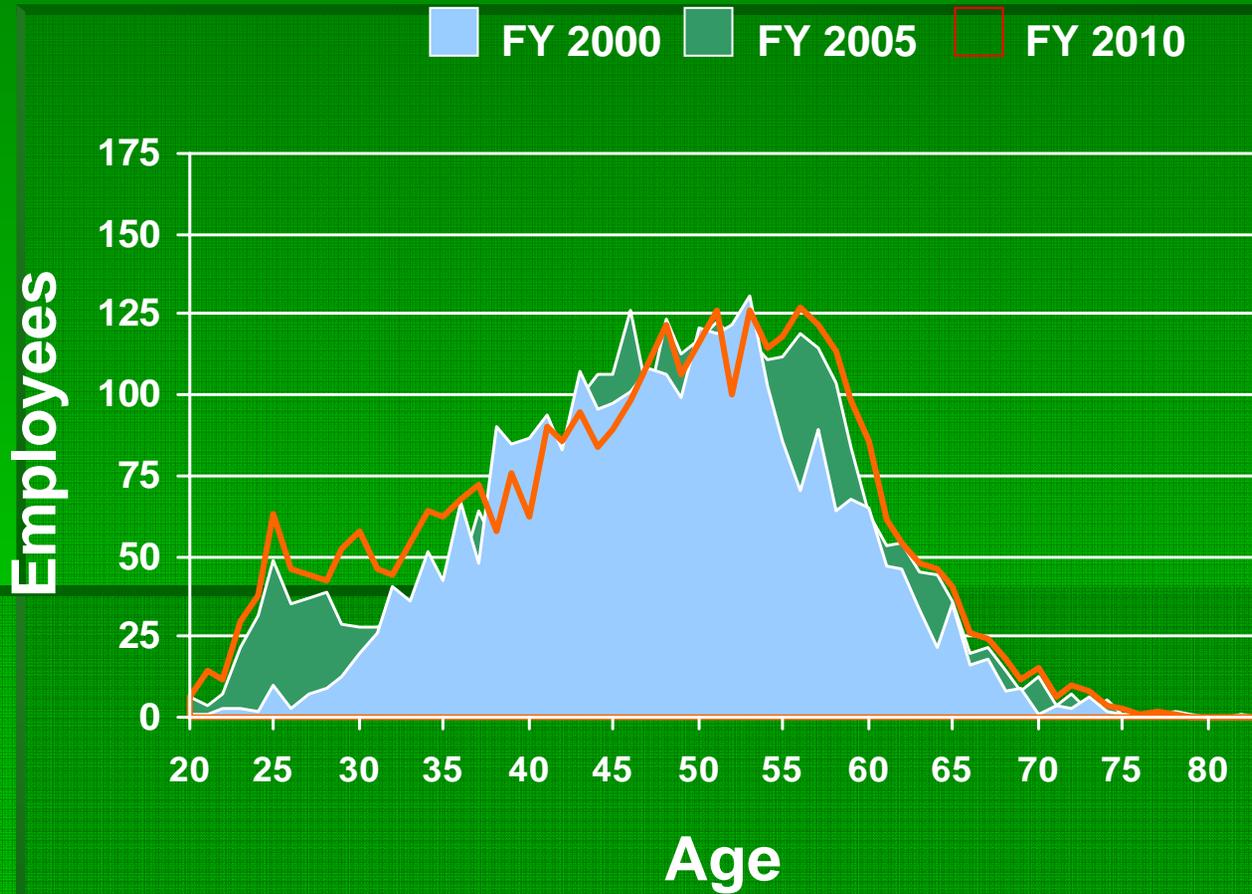
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Lessons Learned (History and Experience)

- Human beings, who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so.
 - Douglas Noel Adams (“Hitchhiker’s Guide to the Galaxy”)
- We learn from history that we do not learn from history.
 - Georg Wilhem Friedrich Hegel (1770-1831)

Age Distribution of Permanent Employees



Why was this program
created?



Specific Problems

- Reversal of corrective actions
- Partially addressed corrective actions
- Actions failed to address the weakness
- No measurable action
- Closeout prior to work complete
- Frequent changes to due dates

Root Causes

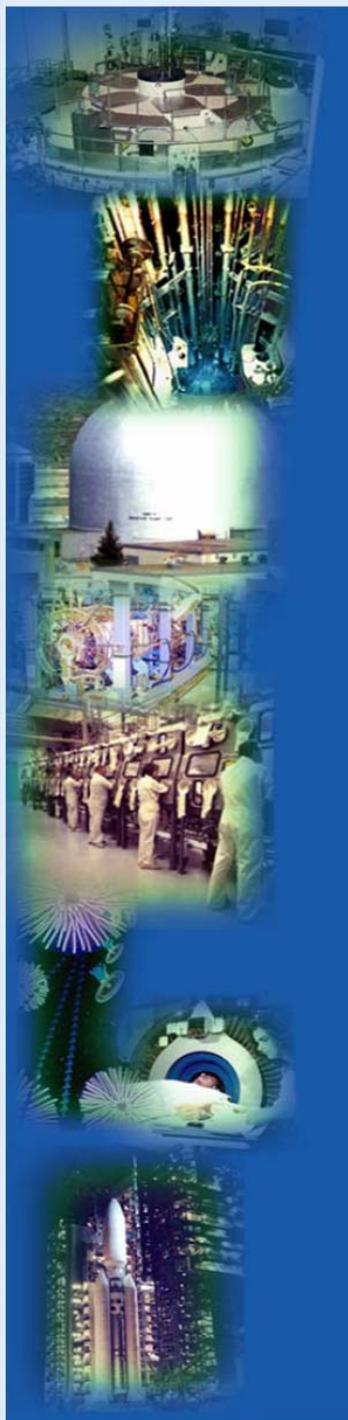
- No agencywide “corrective action program”
- Lack of effectiveness reviews
- No centralized tracking system
- Weaknesses in closeout practices

Team Charter

- Develop a program to ensure lessons learned from significant organizational failures will not recur
- Ensure that the knowledge gained from future lessons learned is retained and disseminated in a manner to maximize its benefit and usefulness to the agency

How will the root causes be addressed?

- No “Corrective Action Program”
 - New process has rigor and formality for significant agency actions
- No Centralized Tracking System
 - Utilizes existing IT systems to Capture, Track, and Store Information
- Weaknesses in Closeout
 - Management Approval is required to closeout
- Lack of Effectiveness Reviews
 - New program uses effectiveness reviews for appropriate actions



Department of Energy Action Plan

Lessons Learned from the Columbia Space Shuttle Accident and Davis-Besse Reactor Pressure-Vessel Head Corrosion Event



U.S. Department of Energy

July 2005

Program Development

- Developed draft process
- Benchmarked external programs
 - INPO, DOE, SELLS, NASA, FAA, Licensees, Navy, Foreign Regulators
- Feedback from internal stakeholders
- Linkage with existing processes/systems
- Reviewed findings – revised process

Accomplishments

- Management Directive issued
- Internal procedures issued
- Project Manager selected
- Oversight Board members designated
- Legacy effectiveness reviews completed

Program Components

- Capture
- Track
- Store
- Configuration Management
- Knowledge Management

Management Directive

- MD 6.8, "Lessons-Learned Program" was approved on August 1, 2006
- Establishes a formal and rigorous process to ensure correction of significant agency deficiencies
- Background and bases included in Management Directive

Program Components

- Primary sources for Lessons Learned are task forces, major event investigations, and major audit reports
- Establishes a high threshold for inclusion into the program

Program Components (cont.)

- Lessons Learned Oversight Board (LLOB) applies the threshold criteria to the recommendations
- Corrective action plans (CAP) will be developed by the lead office

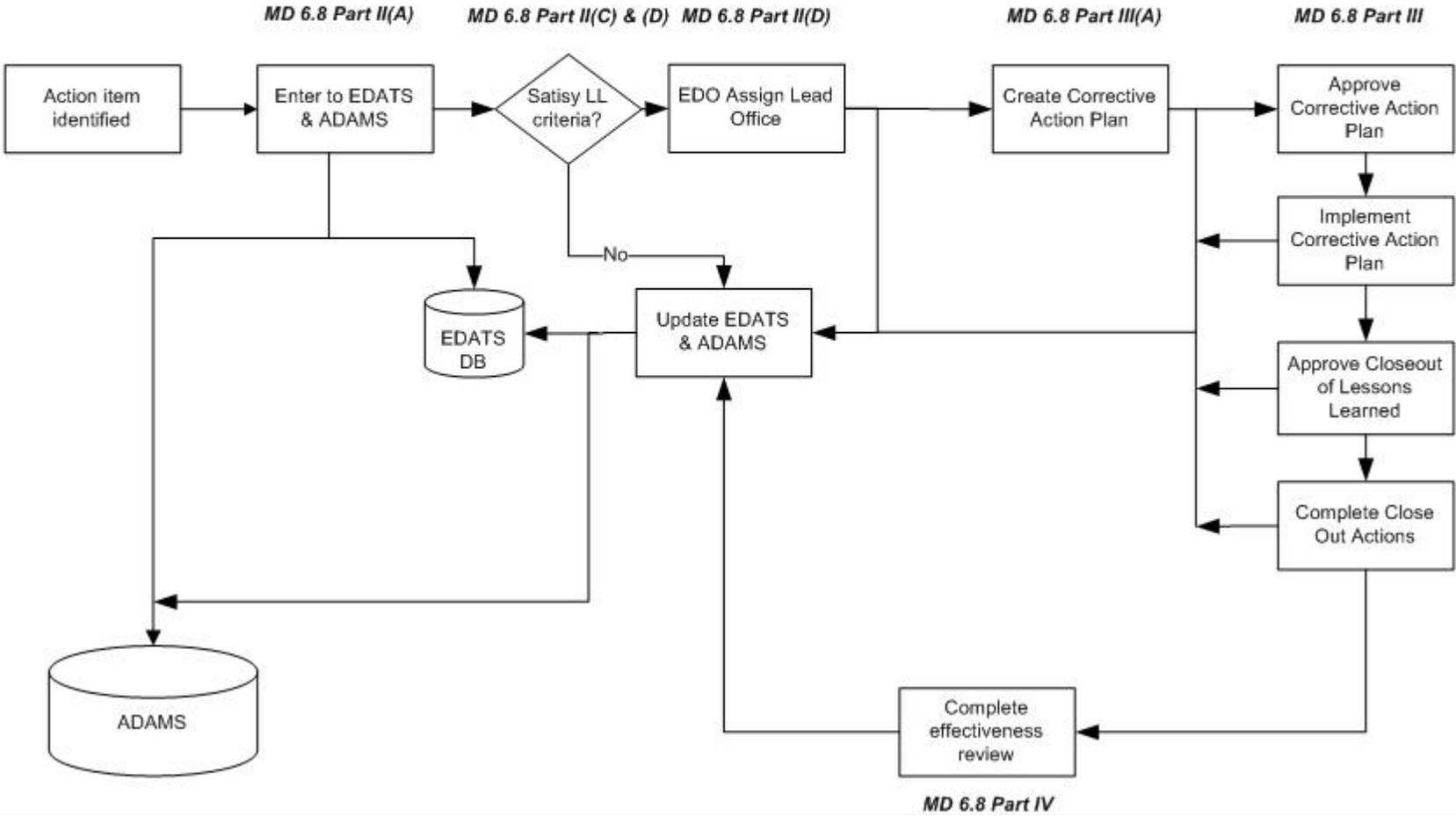
Program Components (cont.)

- LLOB reviews CAP to ensure thoroughness and adequacy
- Lead office implements plan
- For closeout, the LLOB will review to determine acceptability of completed actions

Program Components (cont.)

- Effectiveness reviews planned and conducted to confirm that root causes have been addressed
- Dedicated lessons learned program manager (LLPM)

Lessons-Learned Program Process Flow



What's different about this approach ?

- Rigor and Formality
- More Management Involvement
- Dedicated Staff
- Centralized Tracking
- Effectiveness Reviews
- Focus on Institutionalization
- Configuration Management

How have the root causes been addressed?

- ✓ No "Corrective Action Program"
- ✓ No centralized tracking system
- ✓ Weaknesses in closeout
- ✓ Lack of Effectiveness Reviews

Legacy Effectiveness Reviews

- List of candidates developed
- Template developed and piloted
- Six reports selected for review
- Legacy effectiveness reviews tasked to offices
- Reviews completed
- Summary report

Legacy Effectiveness Review Conclusions

- No outstanding safety issues identified
- No significant deficiencies in corrective actions reviewed
- Additional review warranted for some actions

Legacy Effectiveness Review Comments

- Reviews worthwhile
- Resource intensive
- Locating documents
- Independence vs. knowledge
- Environment and regulatory changes
- View of importance

Future Enhancements

- Configuration Management (CM)
- Knowledge Management (KM)
- Web-based system automation enabling desktop availability

Challenges

- Change management
- Legacy information

Opportunities

- Encourage a culture of continuous improvement
- Integrate with and support the agency's KM initiatives
- Encourage self-assessment in the NRC Offices and share problems and solutions
- Prevent recurrence of issues

Summary

- Lessons Learned Program is in place - Charter tasks completed
- Lessons Learned Program adds rigor to completing important corrective actions
- Program enhancements needed to integrate with KM program and provide more value to the staff

Acronyms

- CAP – Corrective Action Program
- CM – Configuration Management
- EDO – Executive Director for Operations
- KM – Knowledge Management
- LLPM – Lessons Learned Program Manager
- LLOB – Lessons Learned Oversight Board
- MD – Management Directive