

# Progress Energy Input to NFPA 805 Pilot Planning Meeting

NRC Region II  
Atlanta, GA  
August 11, 2005



# Progress Energy Input to NFPA 805 Pilot Planning Meeting

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## Progress Energy (PE) Attendees:

- ▶ Paul Gaffney, Chief Electrical/I&C Engineer
- ▶ Jeff Ertman, NFPA 805 Transition Project Manager
- ▶ John Caves, PSA Supervisor
- ▶ Tony Maness, HNP Site NFPA 805 Project Lead
- ▶ Dave Corlett, HNP Licensing Supervisor
- ▶ Ken Heffner, Lead Licensing Engineer

# NFPA 805 Pilot Planning Meeting

## Progress Energy Pilot & NFPA 805 Goals

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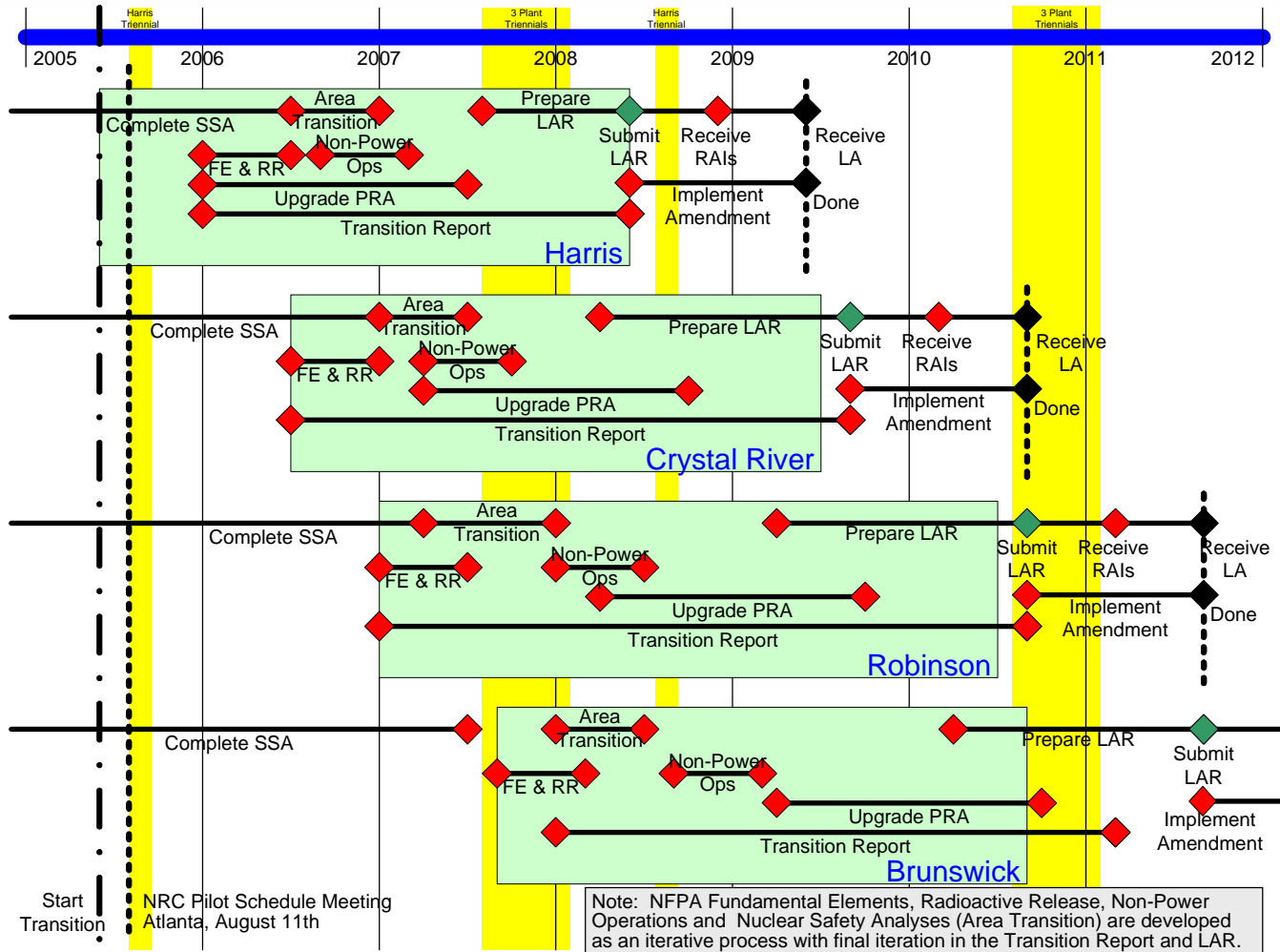
- Focus on Nuclear Safety
- Restore Fire Protection Compliance
- Clean up licensing basis

# NFPA 805 Pilot Planning Meeting Progress Energy Objectives

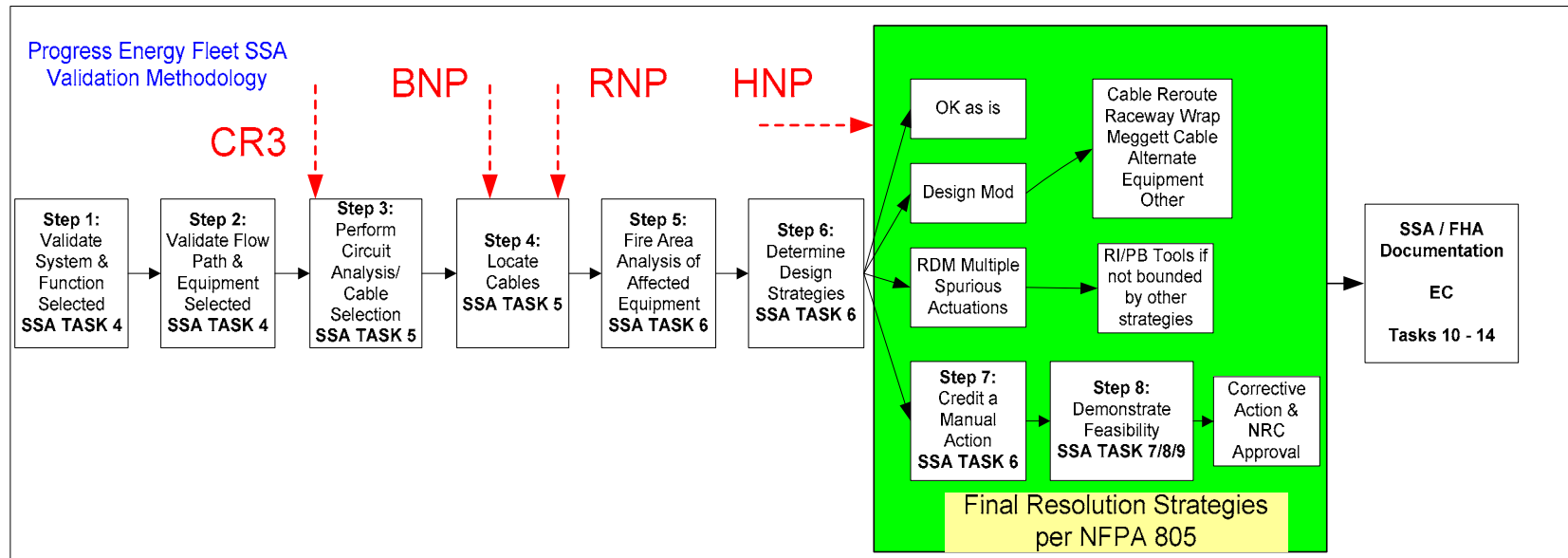
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- Communicate PE transition plans
- Identify key pilot observations
- Identify milestones
- Identify resources for the observation visits such as location, personnel needed, materials needed, and duration
- Handling of deficiencies

# NFPA 805 Pilot Planning Meeting Overview PE Schedule



# NFPA 805 Pilot Planning Meeting PE Status SSA Validation Schedule



# NFPA 805 Pilot Planning Meeting

## Key Pilot Interactions

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- NSPA (SSA) Transition - Comparison to NEI 00-01
  - Multiple circuit failures
  - Recovery Action evaluations T-H & HRA
- Chapter 3 Transition
- Internal Events PRA / Fire PRA
- Fire Modeling
- Radioactive release during firefighting activities
- Non-power operations
- RI change evaluation process
- Fire Protection Performance Monitoring
- CAP tracking of FP deficiencies for resolutions under NFPA 805 / Enforcement Discretion

# NFPA 805 Pilot Planning Meeting

## PE NFPA 805 Transition Project Approach

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- Through 2005
  - Detailed planning, procedure/process development, and team assembly
  - NEI 00-01 comparison and finalize Fire NSPA criteria and methodology in late 2005
  - Fire PRA Gap review
- Continue work HNP SSA Validation
  - NRC Triennial Inspection
  - Prioritize open SSA Validation issues
- Scheduled to start PRA work and Chapter 3 Transition in early 1Q2006



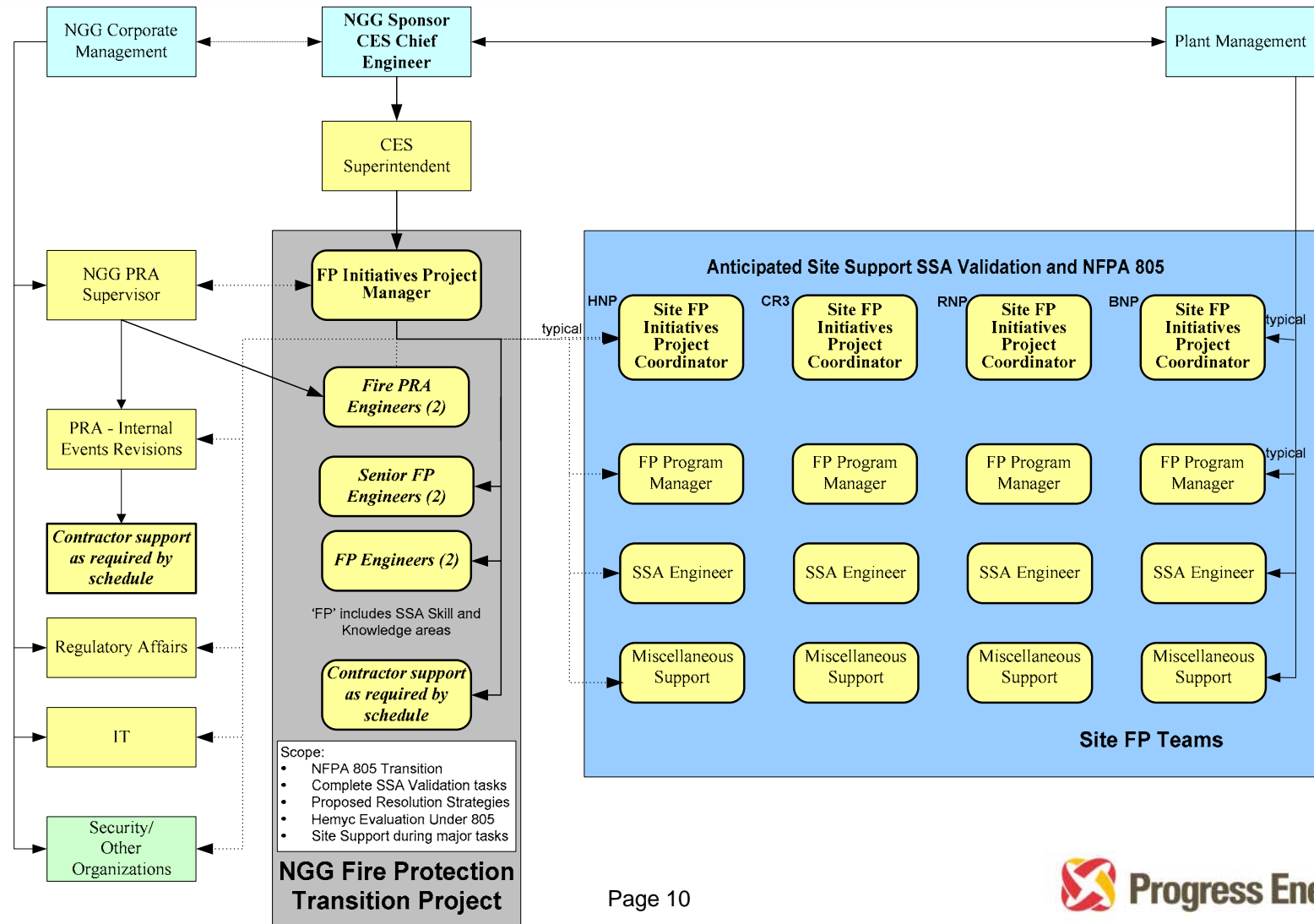
**Progress Energy NFPA 805 Transition Project**

ID	Task Name	2005		2006		2007		2008		2009	
		H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
1	Develop Project Plan - Letter of Intent June 10, 2005										
5	<b>NFPA 805 TRANSITION</b>										
6	<b>NRC Pilot Observations</b>										
7	NRC, Duke, PE Project Planning Kickoff - Atlanta										
8	NRC HNP Observation 1 (Est)										
9	NRC HNP Observation 2 (Est)										
10	NRC HNP Observation 3 (Est - etc)										
11	NRC Observations Complete										
12	<b>Task 1.0 Project Initiation</b>										
13	Start Project Plan Tasks										
14	Sub-Task 1.1 - Define Picture of Post Transition Fire Protection Program										
16	Sub-Task 1.2 - NSPA Methodology Review										
19	Sub-Task 1.3 - Develop processes, procedures, documents for project										
76	<b>HNP</b>										
77	HNP: Task 2.0 Fundamental FP Program and Design Elements Transition										
88	HNP: Task 3.0 Radioactive Release Transition										
95	HNP: Task 4.0 Nuclear Safety Performance Analysis (NSPA) Transition										
96	Sub-Task 4.1 - Complete SSA Validation Project under CLB										
114	Sub-Task 4.2 - 4.5 Fire Area Transition										
129	HNP: Task 5.0 Non-Power Operational Modes										
138	HNP: Task 6.0 Internal Events Upgrade as needed to support Fire PRA										
146	HNP: Task 7.0 Develop Fire PRA										
186	HNP: Task 8.0 NFPA 805 Change Evaluations										
188	HNP: Task 9.0 Mapping of Post-Transition Procedure and Documents										
203	HNP: Task 10.0 Transition Report										
205	HNP: Task 11.0 License Amendment Request										
208	HNP: Task 12.0 RAI Responses										
210	HNP: LICENSE AMENDMENT RECEIVED										
211	HNP: Task 13.0 Program Implementation										
216	<b>Z: Project Closeout</b>										

Project: PE NFPA 805 Date: August 9, 2005	Task		Summary		Rolled Up Progress		Project Summary	
	Progress		Rolled Up Task		Split		Group By Summary	
	Milestone		Rolled Up Milestone		External Tasks		Deadline	

# NFPA 805 Pilot Planning Meeting

## PE NFPA 805 Transition Project Team



# NFPA 805 Pilot Planning Meeting

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- Break

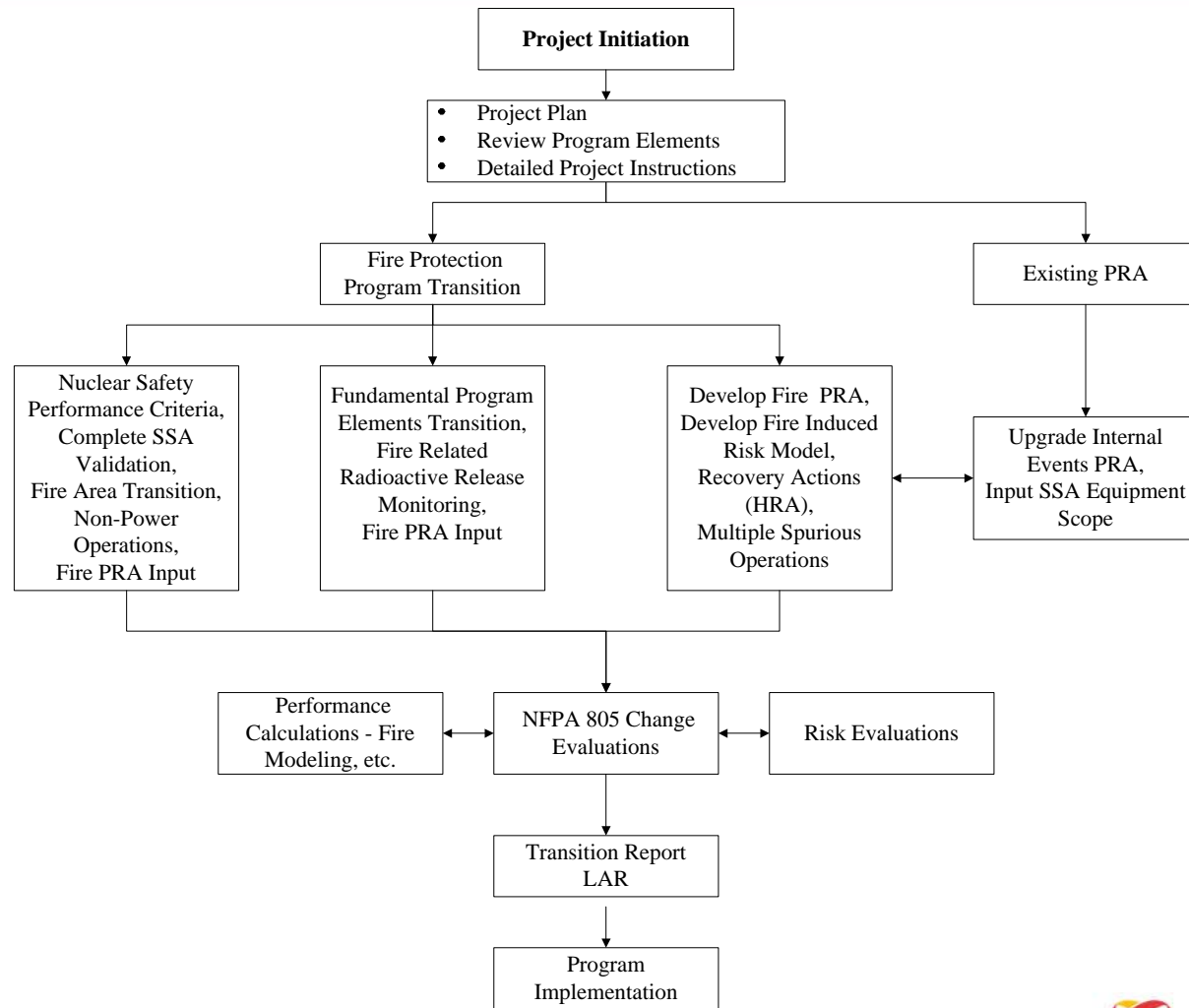
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## PE Transition Plan Overview

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- Guidance Documents Used
  - ▶ NEI 04-02 – *Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program under 10CFR50.48(c)*
  - ▶ NEI 00-01, *Guidance for Post-Fire Safe Shutdown Circuit Analysis*
  - ▶ NUREG/CR-6850, *Fire PRA Methodology for Nuclear Power Facilities*

# NFPA 805 Pilot Planning Meeting Project Plan - Overview Work Flow



# NFPA 805 Pilot Planning Meeting

## PE Transition Plan - Key Interactions

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- SSA and NSPA
- Chapter 3 Transition
- Internal Events PRA / Fire PRA
- Fire Modeling
- Non - Power Ops & Radioactive Release
- Change process & NFPA 805 Implementation
- Performance Monitoring
- CAP tracking of FP deficiencies

# NFPA 805 Pilot Planning Meeting SSA and NSPA

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- Tasks and approximate timing:
  - ▶ 1.2 - Existing SSA / NEI 00-01 Methodology Comparison - November 2005
  - ▶ 4.1.7 - SSA Transient Analysis/Operation Considerations – April 2006
  - ▶ 4.2 - NSPA Fire Area-by-fire Area Transition sample results – July 2006
  - ▶ 4.5 - NSPA Recovery Actions – November 2006
- Discussion of resources

# NFPA 805 Pilot Planning Meeting

## Chapter 3 Transition

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- Tasks and approximate timing:
  - ▶ 2.1.1 – Non Fire Area specific elements – March 2006
  - ▶ 2.1.2 – Fire Area specific FP elements – January 2007
- Discussion of resources



# NFPA 805 Pilot Planning Meeting

## Internal Events PRA / Fire PRA

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- Tasks and approximate timing:
  - ▶ 1.3.2.4 – Fire PRA Gap review – November 2005
  - ▶ 6.2 – Internal Events PRA Gap Assessment – January 2006
  - ▶ 7.4 – Fire PRA Component Mapping – June 2006
  - ▶ 7.10 – Circuit Failure Mode Analysis – September 2006
  - ▶ 7.6 – Fire Induced PRA Model – February 2007
  - ▶ 7.12 – Human Reliability Analysis – June 2007
  - ▶ 7.13 – Fire Risk Quantification – September 2007
  - ▶ 7.14 – Uncertainty Analysis – November 2007
- Discussion of resources

# NFPA 805 Pilot Planning Meeting

## Fire Modeling

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- Tasks and approximate timing:
  - ▶ 4.1.8 – SSA Validation Recovery Action Feasibility – February 2006
  - ▶ 7.11 – Detailed Fire Modeling for Fire PRA – September 2006
- Discussion of resources

# NFPA 805 Pilot Planning Meeting

## Non - Power Ops and Radioactive Release

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- Tasks and approximate timing:
  - ▶ 3.2.3 – Identify changes to Fire Brigade training – July 2006
  - ▶ 5.2.4 - Revision to site outage risk review process – October 2006
  
- Discussion of resources

# NFPA 805 Pilot Planning Meeting Change Process & Implementation

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- Tasks and approximate timing:
  - ▶ 1.3.2.8 – Change Process Procedure – October 2005
  - ▶ 8.1.1 – Change Process Products – (TBD)
    - ◆ Fundamental Element Performance Based Evaluation (if any)
    - ◆ Barrier (such as Heymc) Change Evaluation
    - ◆ Recovery Action Change Evaluation
    - ◆ Sample of other unique type Change Evaluations
  - ▶ 13.0 – Program Implementation
- Discussion of resources

# NFPA 805 Pilot Planning Meeting Performance Monitoring, CAP Tracking

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- Tasks and approximate timing:
  - ▶ Task 9.2.6 – Establish Performance Monitoring Procedure and scope –
  - ▶ Review of CAP tracking of FP deficiencies during transition – October 2005
  - ▶ Other items??
  
- Discussion of resources

# NFPA 805 Pilot Planning Meeting Summarize Results

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- Conceptual Observation Schedule
  
- Resources Identified