RIC 2006, Session T1D
Progress Energy
Fire Protection: Risk Informed and Performance Based

Transition to NFPA 805

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NGG Nuclear Generation Group

Progress Energy

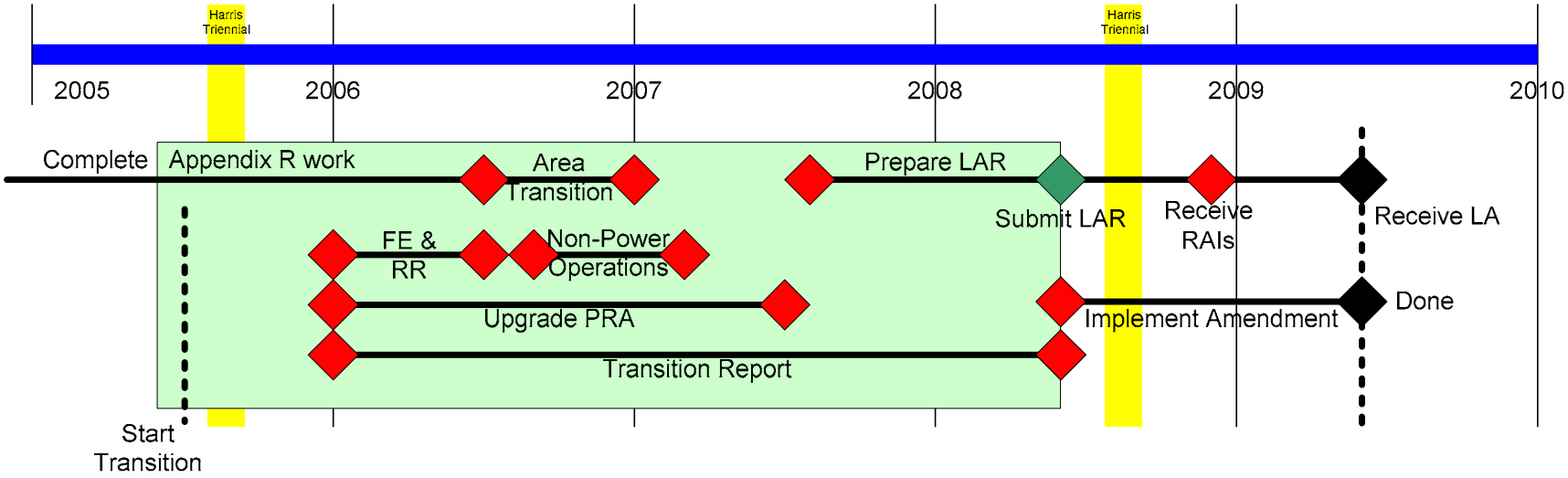
PE FP Program Initiatives Project Introduction

- Project Scope includes three major work areas
  - Complete SSA/Appendix R Reconstitution (started in 2003) primarily using NEI 00-01 as guidance
  - Develop Fire PRAs using NUREG/CR 6850 as guidance and revise Internal Events PRA to support it
  - Transition to 10CFR50.48(c) / NFPA 805 using NEI 04-02 Guidance
- Project Planning plays a key roll
  - Dedicated project resources required
- Harris pilot plant activities started in 2005

PE FP Program Initiatives Project Progress Energy Goals

- Transition to risk informed, performance based licensing basis for an improved safety focus
- Establish a common Fire Protection Program across fleet
- Address recent NRC guidance relative to SSA Circuit Analysis and Manual Operator Actions
- Address PE Hemyc applications
- Advance Fire Protection and PSA personnel skill and knowledge

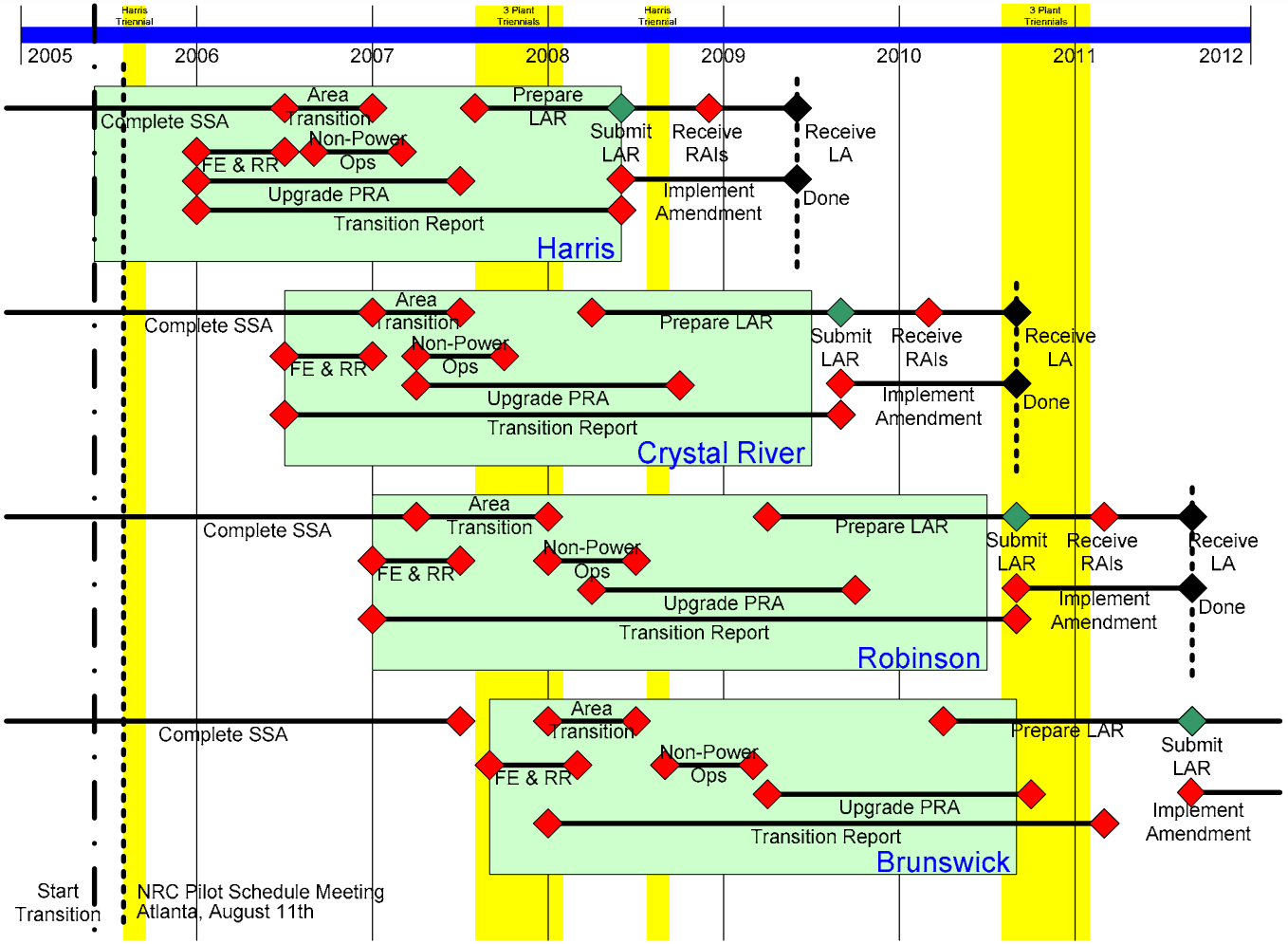
PE FP Program Initiatives Project
Harris NFPA 805 Transition Plan



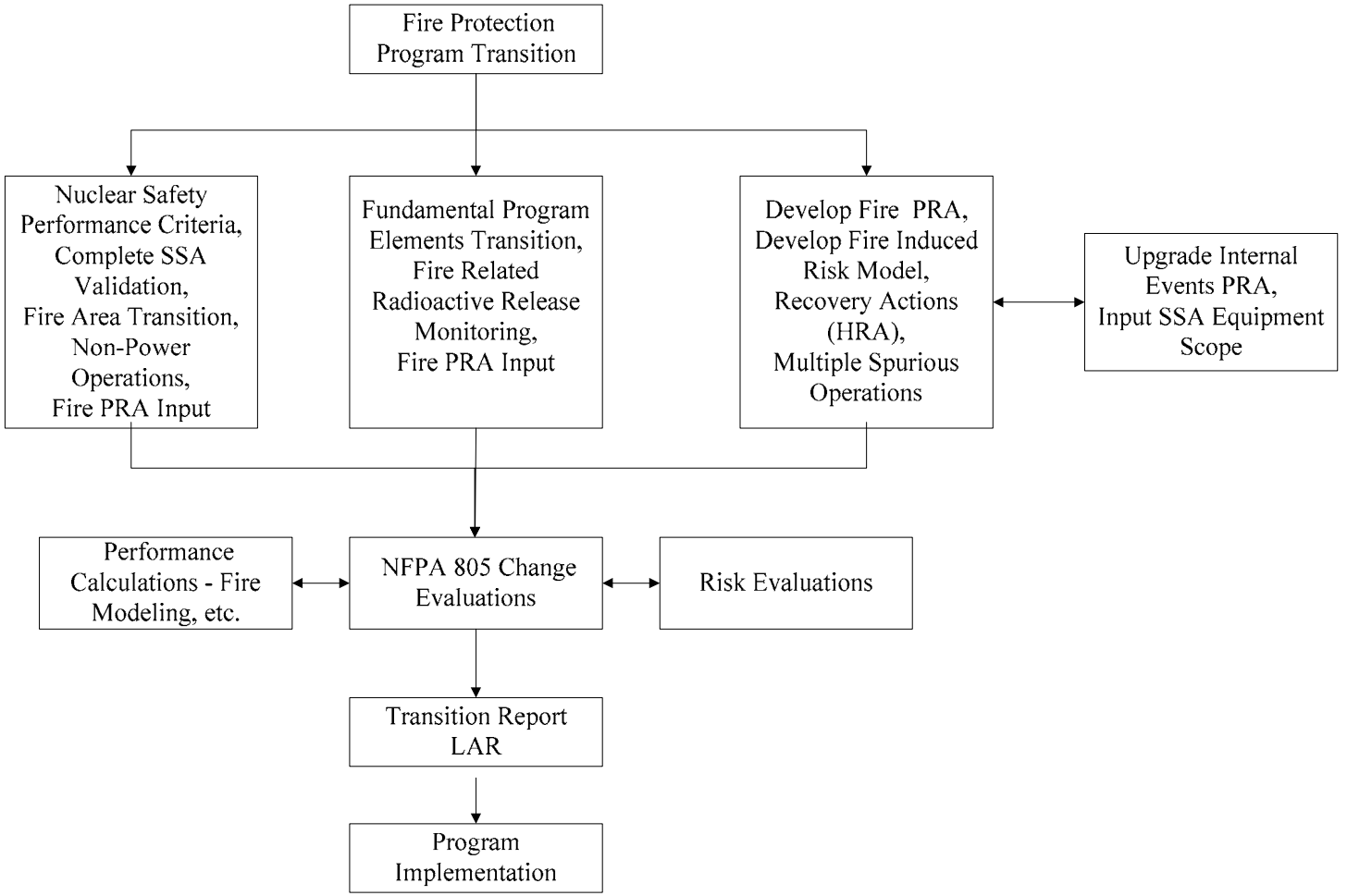
Notes:
- FE = NFPA 805 Chapter 3 Fundamental Elements
- RR = Radioactive Release
- Area Transition = Appendix R Transition on Fire Area Basis
- Non-Power Operations does not include Shutdown PRA.

These items are developed as an iterative process with final iteration in the Transition Report and LAR.

PE FP Program Initiatives Project
Conceptual NFPA 805 Transition Plan



PE FP Program Initiatives Project
NFPA 805 Work Flow Summary



PE FP Program Initiatives Project Plan Development

- *Rolling Wave* project planning method utilized
  - Plan includes all four plants
  - Lessons learned from lead plant will be applied across the fleet
- Dedicated resources at corporate level
- Committed resources at site level
- High Level of interaction between Fire Protection and PRA groups
- Funding at the Fleet Initiative level

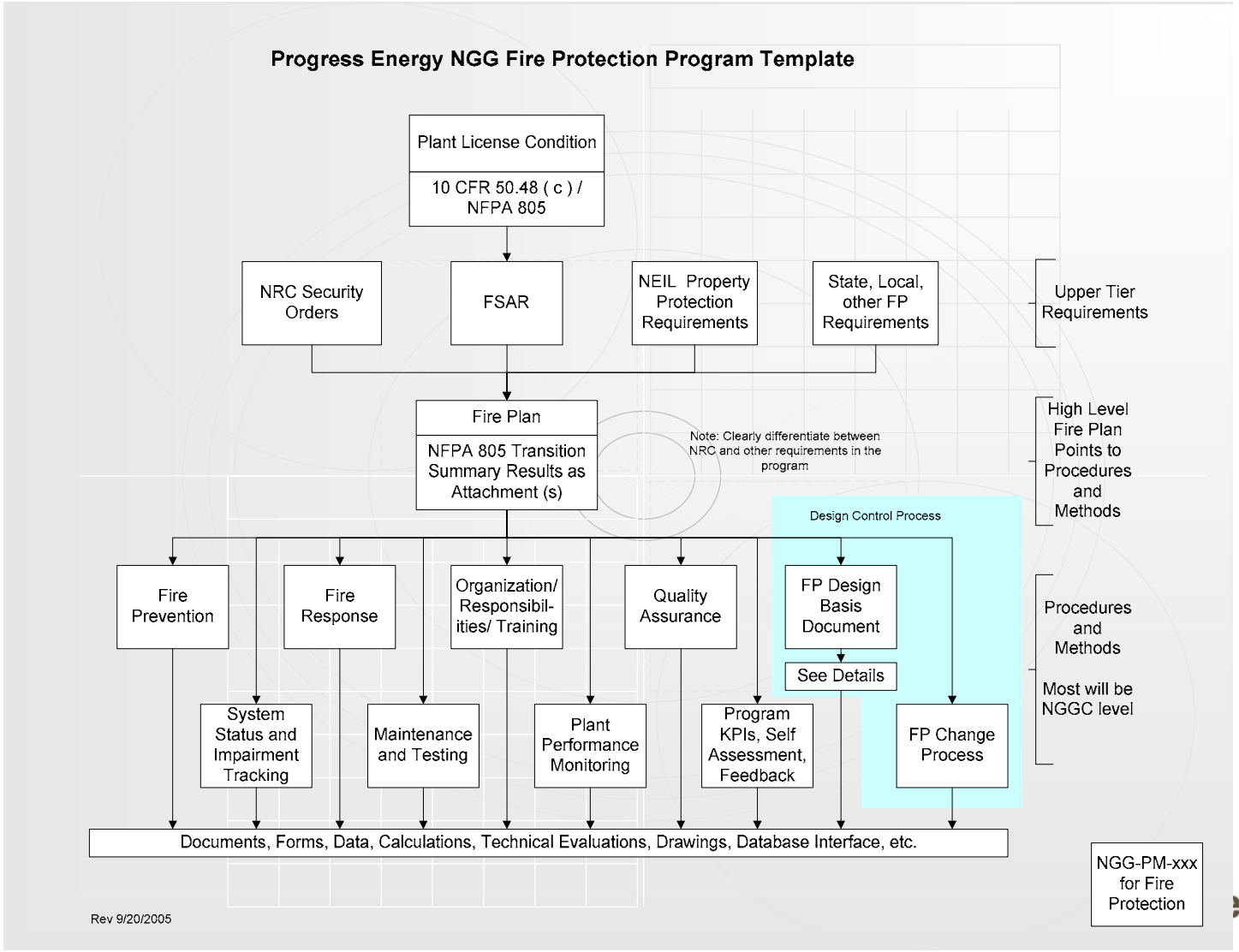
PE FP Program Initiatives Project Costs

- Project estimates include
  - Appendix R Reconstitution/validation
  - Fire PRA/Internal events PRA
  - FP Program Transition analysis and LAR
- $1 to $4 million per plant average
  - Does not eliminate need for all modifications
    - Some Low Risk mods may be eliminated
  - Cost does not include plant modifications that may be needed

PE FP Program Initiatives Project
Pilot Observation Process

- NRC observation meeting approximately quarterly
  - Pilot utilities present samples of in-process work products for NRC review
  - NRC Provides Feedback on details of the transition
  - This process is needed to reduce regulatory uncertainty as project progresses
- Some examples of in-process work products:
  - Appendix R – methodology to address the following:
    - Multiple circuit failures
    - Recovery Action evaluations
  - Fire PRA tasks
  - Risk Informed change evaluation process

PE FP Program Initiatives Project Conceptual Post Transition Program



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PE FP Program Initiatives Project Summary

- NRC Pilot Observations are productive in getting potential issues on the table for resolution
- The transition is a huge effort that will likely include work on the Appendix R analysis and Fire PRA
- Success is highly dependant on use of project management tools and processes