MEETING WITH NUCLEAR ENERGY INSTITUTE (NEI)

LIST OF ATTENDEES

MARCH 3, 2006

NRC

J. Lyons	J. Rogge (RI)	L. Smith (RIV)
S. Weerakkody	C. Nolan (OE)	G. Parry
P. Lain	G. Mizuno(OGC)	P. Koltay
B. Radlinski	Q. Nguyen	S. Dinsmore
A. Klein	B. Richter	J. Bonearra
D. Frumkin	R. Woods	J. Hyslop
R. Gallucci	B. Wolfgang	J. Lamb (ACRS)
C. Moulton	P. Qualls	

Industry & Public

A. Marion (NEI)	R. Kalantari (EPM)	E. Kleinsorg (KG)
B. Jarnar (NEI)	T. Jutras (EPM)	A. Ratchford (RDS)
J. Ertman (Progress)	F. Peuizzari (EPM)	K. Zee (ERIN)
A. Holder (Progress)	P. Colman (EPM)	R. White (ERIN)
R. Rishel (Progress)	F. Pellizzori (EPM)	B. Dukes (Nisys Corp)
D. Miskiewicz (Progress)	F. Emerson (GE/BWROG)	R. Oates (App R Solutions)
M. Franklin (Progress)	D. Parker (Southern N)	R. Bertucio (Scientech)
D. Henneke (Duke)	J. Lattner (Southern N)	J. Redmond (AREVA)
H. Barrett (Duke)	D. McKinney (Southern N)	R. Dible (AREVA)
J. Reddington (First E)	C. Byrd (Southern N)	B. McDevitt (AREVA)
H. Kahl (First Energy)	J. Reddington (FENOC)	J. Gregerson (SCE)
J. Miller (First Energy)	F. Garrett (APS)	J. Shudall (NPPD-CNS)
M. Yungbluth (AmerenUE)	P. Boulder (ARS)	R. Gray (AEP)
P. Bell (AmerenUE)	M. Richardson (STARS)	D. Buell (OPPD)
V. Rubiano (FPL)	D. Tolete (Dominion)	J. Aldieri (Sargent Lundy)

R. Jamison (FPL)

M. Carlson (Amergen)

D. Hampshire (PG&E)

A. Afzali (PG&E)

R. Loeffler (NMC)

T. Swiecicki (NMC)

J. Masterlark (NMC)

F. Deperalta-Meister (Tri-en Corp)

G. Cooper (Constellation)

C. Pragman (Exelon)

G. Krueger (Exelon)

K. Ainger (Exelon)

F. Cox (Exelon)

C. Sinopoli (Exelon)

R. Wilferd (STARS)

N. Chapman (SERCH/Bechtel)

S. Dolley (McGraw-Hill)

P. Campbell (ML)

D. Raleigh (LIS, Scientech)

C. Tyler (Winston & Strawn)

B. Najafi (SAIC/EPRI)

M. Heatherly (TVA)

Risk-Informed and Performance-Based Fire Protection Workshop (NFPA 805 Rule)

James E. Lyons, Director
Division of Risk Assessment
Office Of Nuclear Reactor Regulation
March 3, 2006

Agency Integration of Risk-Informed and Performance-Based Regulation

- Goal: Provide Regulatory Stability
- Close Long Standing Fire Protection Issues
- Reduce Resources Spent on Non-Risk Significant Fire Protection Issues
- Facilitate NFPA 805 Transition
  - Guidance & Procedure Development
  - Pilot Program, Workshops, & Public Mtgs

Risk-Informed and Performance-Based Fire Protection Workshop (NFPA 805 Rule)

Sunil Weerakkody, Chief
Fire Protection Branch
Office Of Nuclear Reactor Regulation
March 3, 2006

Workshop Purpose

- Discuss regulatory expectations, pilot plant lessons learned, transition implementation guidance, answer stakeholder questions, and receive feedback from NFPA 805 non-pilot plants.

Workshop Schedule

- Regional Workshops
  - Semi-Annual
- Pilot Plant Observation Visits
  - Every 3 to 4 Months
- Non-Pilot Workshops
  - How often ?

NFPA 805 Transition

Paul W. Lain, PE
NFPA 805 Program Manager
NRR Fire Protection Branch

Purpose

- Discuss letters of intent and NRC's response

Letters Of Intent

- Received 12 Letters of Intent
- Covering 37 plants
- Most requested 36 months to transition
- Fleets requested a staggered transition

NRC Response

- Two pilots (Oconee & Harris)
- Only 24 months of discretion
- 12/31/05 start date to receive discretion for existing non-compliances
- Fleet discretion
  - EGM 8.1.7.1
  - ROP

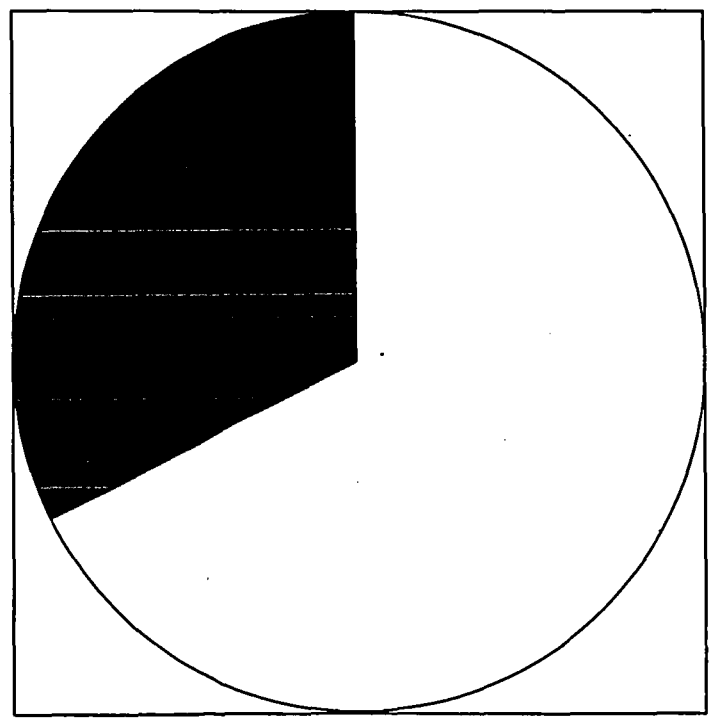
Site Transition

- ANO (Entergy)
- Turkey Point (FP&L)
- Callaway (AmerenUE)
- Ginna (Constellation)
- Cooper (Nebraska Public Power District)
- St. Lucie (FP&L)
- Waterford (Entergy)
- D.C. Cook (Indiana Michigan Power Co.)
- Diablo Canyon (PG&E)

Fleet Transitions

- Duke Power
  (Oconee, McGuire, Catawba)
- Progress Energy
  (Shearon Harris, H.B. Robinson, Crystal River, Brunswick)
- Nuclear Management Co.
  (Point Beach, Monticello, Palisades, Prairie Island, Duane Arnold)
- First Energy Nuclear
  (Beaver Valley, Davis Besse, Perry)

NFPA 805 Plants



RG/NEI 04-02 Interim Changes (Concept)

Paul W. Lain, PE
NFPA 805 Program Manager
NRR Fire Protection Branch
March 3, 2006

OBJECTIVE

- Reduce regulatory uncertainty between Reg Guide revisions and NEI 04-02 endorsements.

How

- Develop a vehicle to receive NRC technical approval on potential changes, updates, and corrections being identified by the 805 Transition Pilot Program and lessons learned from NFPA 805 non-pilot plants

Categorize the Changes

- Administrative
  - RG/NEI 04-02 Duplication
  - Technical Clarification/Editorial
- NRC Previously Approved Agency Position
  - RIS, GLs, SERs, Topical Reports
- Lessons Learned
  - New Concepts/Methodologies/Processes
  - Efficiencies

Interim Approval

- Obtain appropriate technical buy-in:
  - AFPB - Fire Protection Branch
  - APRA/B – PRA Branch
  - IRIB – Inspection Branch
  - OE – Office of Enforcement
  - OGC – General Counsel
  - RES - Research
  - Regions

Recovery Actions
(Operator Manual Actions)

Alexander Klein,
Sr. Fire Protection Engineer
Fire Protection Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

March 3, 2006

10 CFR 50.48(c) Recovery Actions

- Unapproved operator manual actions
  - corrective action program
  - compensatory measures
- Unapproved operator manual actions continue to be unapproved until
  - the actions have been processed through the corrective actions program (e.g., by using the NFPA 805 change control process)

  AND

  - licensee has received a license amendment
- Compensatory measures
  - in accordance with the plants FPP
  - licensee may be able to justify the operator manual action as a compensatory measure
  - RIS 2005-07

Circuits Analysis
NFPA 805 Transition

Robert Wolfgang,
Fire Protection Engineer

Fire Protection Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

March 3, 2006

RIS 2005-30 Clarification of Post-Fire Safe-Shutdown Circuit Regulatory Requirements

- Scope of Spurious Actuation Analysis
  - Post-fire, safe-shutdown circuit analyses should address any and all possible failures and combinations of multiple failures caused by spurious actuations from fire-induced circuit failures in redundant systems in fire areas where the failures could impact safe shutdown (fire areas defined by Appendix R, paragraph III.G.2)
- Associated Circuits
  - Cables whose fire-induced failure could cause maloperation of redundant trains in a III.G.2 area due to hot shorts must be protected.
- Emergency Control Stations
  - III.G.1 protection for redundant safe-shutdown systems may not be claimed for redundant systems in a III.G.2 area by crediting an operator manual action.

Generic Letter Post-Fire Safe-Shutdown Circuit Analysis Spurious Actuations

- Provide a statement whether or not you conclude you are currently in compliance with the regulatory requirements
- Provide a statement that you are transitioning to NFPA 805
- Provide a description of how multiple spurious actuations will be addressed in your PRA

Hemyc/MT Generic Letter Responses

D. M. Frumkin
NRR/ADRA/DRA/AFPB

Hemyc/MT Generic Letter Response to Questions 1 and 2, Requested within 60 days

Hemyc/ MT and Other Barriers	1. State if Hemyc/MT is used and relied on for compliance. 2. Describe extent of installation, if the Hemyc/MT continues to comply with 50.48, compensatory measures, and corrective actions (for plants that intend to adopt 50.48(c) this may involve dispositioning the issue through implementing NFPA 805, for plants that do not intend to adopt 50.48(c) this would involve a license amendment, exemption or fix). 3. Respond to Bullet 2. of Other Barriers, or provide a clear positive statement that no other barriers are used.

Hemyc/MT Generic Letter Response to Questions 1 and 2, Requested within 60 days

Other Barriers	1. State that plant does not use Hemyc/MT. 2. Describe programmatic controls for other barriers to avoid issues similar to Hemyc/MT. Describe testing of barriers, supports, and intruding steel; bounding the installed configurations by tested configurations (GL 86 10, Q 3.2.2); and ampacity derating. Describe functionality methodology if such a method was used.
No Barriers	Clear positive statement that fire barriers are not relied upon for III.G.2 protection of electrical raceways, or other regulatory commitments, such as SRP 9.5.1.

Summary of Test Acceptance Criteria from R.G. 1.189

- Three conditions:
  - Average unexposed side temperature did not exceed 250F temperature rise
  - Visual inspection shows no signs of degradation
  - System remains intact following test and hose stream test
- If temperature criteria was not used, describe how functionality was demonstrated

Other Test Considerations

- Test should be representative of installed configurations
- Test should include representative support protection
- Testing should encompass or bound installed configurations
- Test specimens should include representative cables (if tests include cables)

Enforcement Policy – Fire Protection Issues

M. Christopher Nolan

Chief, Enforcement Policy & Program Oversight Section
Office of Enforcement
U.S. Nuclear Regulatory Commission

March 3, 2006

Enforcement Discretion - Fire Protection Issues

- Interim Policy on Enforcement Discretion for 10 CFR 50.48(c)
  - Allows licensees up to 2 years for transition
  - Covers noncompliances identified during transition
  - Covers existing noncompliances for licensees that initiates transition before 12/31/05

Enforcement Discretion - Fire Protection Issues

- Criteria for 10 CFR 50.48(c) Discretion Policy
  - Licensee identified through voluntary initiative
  - Immediate corrective/compensatory measures taken and maintained
  - Long term corrective actions taken or scheduled
  - It was not willful
  - Not likely to be previously identified by routine efforts
  - Entered into corrective action program
  - Does not apply to violations categorized as SL I or a Red Finding

10 CFR 50.48(c) Discretion Policy

- Feedback From Licensee:
  - 2 year transition period many not be sufficient to complete transition activities
  - 12/31/2005 deadline for existing noncompliances is an impediment for multi-site utilities that want to implement a staggered approach

PETER KOLTAY
SENIOR REACTOR OPERATIONS ENGINEER
Reactor Inspection Branch NRR

NFPA 805 Transition Inspection

- Inspection Procedure IP 71111.05TP
  - What will NOT be inspected or reviewed:
    - Electrical circuits analysis
    - Routing of cables
    - Cables attributes and failure modes
  - What will be inspected:
    - Capability to achieve and maintain safe shutdown
    - Capability to shutdown from outside the Control Room
    - Fixed, passive and active fire protection system
    - Fire brigade capability
    - Compensatory measures

NRC Standard Review Plan (SRP) For 50.48(c) - NFPA 805

D. M. Frumkin
NRR/ADRA/DRA/AFPB

New SRP Section for 50.48(c)/NFPA 805 Review – 9.5.X

- SRP is a review guide for NRC staff
  - For 50.48(c) review
  - Also useful for other risk informed submittal review
- SRP will be developed based on existing guidance and based on pilots
- Stakeholders will have opportunity to review SRP
- Planned to be completed prior to submittal of first 50.48(c) license amendment

SRP Topics

Topics	Licensee Tools	Notes
Peer Review (non-Pilots)	*NEI Fire PSA Peer Review Guide; ANS Fire PSA Standard*	Industry review; NRC audit of findings and resolutions*
Fire PSA	NUREG/CR-6850	Fire PSA "State-of-the-Art"
Fire Models	NEI 04-02, App. D; NUREG/CR-6850, § 11; *NRC Fire Models' V&V*	NUREG-1805 simplified Fire Dynamics Tools
Circuit Analysis	NEI 00-01; NUREG/CR-6850, § 9-10 ; NRC Generic Communications	RIS 2004-003, Rev. 1; RIS 2005-030; *GL 2006-XX*
Recovery Actions	HRA Methods; *NRC NUREG on Operator Manual Actions*	Performance Shaping Factors for HRA
DID/SM	RG 1.174; NEI 04-02, § 5.3.5.2-3	LFS >> MEFS; Part of Fire PSA
Low Power/ Shutdown	NEI 04-02, § 4.3.3 & App. F; *Future Guidance*	*Not part of ANS Fire PSA Std.; May be in ANS LP/SD PSA Std.*

NRC will use SRP and Inspection Procedures to review all items except where noted (*)

Items in italics are future documents; Regulatory Guide addresses all topics

Reduction in Risk Threshold For Self Approval

Gareth W Parry
Senior Advisor for PRA
Division of Risk Analysis
NRR

Why the Reduction?

- The 50.48(c) RG approves the process for changing the licensing basis post-transition, including changes that may be made without NRC staff review (self-approval)

Why the Reduction?

- Self approval acceptance Guidelines based in RG 1.174 values are not applicable
  - RG 1.174 does not have a self-review option,
    - every proposed change undergoes staff review of relevant parts of the PRA, the method to analyze a change, and the application of that method to calculate ΔCDF/ ΔLERF
    - NRC must develop confidence that the quality of all the analysis supports the conclusion that the risk increase is acceptable.
  - Peer review of the base PRA permits relying on a staff review focused on the quality of the PRA models used to support each change request.
  - Since the scope and nature of potential changes that will be self-approved is not defined, neither the relevant parts of the PRA, nor the change specific analysis method and actual analysis supporting each ΔCDF/ ΔLERF can be isolated for focused review during transition.

Why the Reduction?

- Proposed self-approval guidelines should be less than RG 1.174 acceptance criteria to provide confidence that the risk increase is acceptable relying solely upon the peer review of the base PRA and general review of the change specific analysis methods.

NFPA 805 Transition Pilot Program

Paul W. Lain, PE
NFPA 805 Program Manager
NRR Fire Protection Branch
March 3, 2006

Objective

- Evaluate licensee transition to NFPA 805
- Observe implementation of the Reg Guide & NEI 04-02
- Facilitate development of new processes
- Facilitate communication with those transitioning
- Provide lessons learned for non-pilot plants

Observation Visits

- Observation Visits
  - Every 3 to 4 months
  - Follow Implementation Progress
  - Provide Feedback to Pilots
- Trip Reports
  - Document Visits
  - Provide lessons learned to Non-Pilots

NFPA 805 PERFORMANCE-BASED FIRE PROTECTION PROGRAM
PUBLIC MEETING
MARCH 3, 2006

Bob Radlinski, P.E.
Fire Protection Section
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

What is an NFPA 805 fire protection program?

- A risk-informed, performance-based fire protection program (FPP) for existing nuclear power plants, based on NFPA 805, that can replace the current FPP.
- The NFPA 805 FPP must meet specified performance criteria for nuclear safety and radiological release based on qualitative and quantitative analyses - rather than the prescriptive requirements of Appendix R (pre-1979 plants) and SRP Section 9.5.1(post-1979 plants)
- Plants adopting NFPA 805 will need a plant-specific fire probabilistic risk assessment (PSA) that will be used to demonstrate that the FPP meets the risk acceptance criteria.

How was it established?

- 10 CFR 50.48(c) was added to the Fire Protection Rule as a voluntary alternative to 10 CFR 50.48(b)
- 10 CFR 50.48(c) endorses NFPA 805, with important qualifications, as the basis for a performance-based FPP (the appendices of NFPA 805 are not endorsed by the Rule)
- The 50.48(a) requirements for a fire protection program are still applicable

What are the key documents that define the regulatory requirements and guidance?

- 10 CFR 50.48(c)
- NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plant," 2001 Edition
- Regulatory Guide 1.205, "Risk-Informed, Performance-Based Fire Protection For Existing Light-Water Nuclear Power Plants" - endorses NEI 04-02 with qualifications and clarifications.
- NEI 04-02, "Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program Under 10 CFR 50.48(c)."
- Note that the vast majority of guidance on the transition process and the implementation of the new license is provided in NEI 04-02.

How many plants have committed to adopting NFPA 805?

- To date, 37 units have been committed by licensees to transitioning to an NFPA 805 FPP
  - Region I - 3 (Ginna and Beaver Valley 1& 2)
  - Region II - 16 (Oconee Unit 1 and Harris are "Pilot Plants")
  - Region III - 11
  - Region IV - 7

What is the basic process for adopting an NFPA 805 licensing basis?

- Licensee performs a preliminary assessment to determine if a license change is right for them
- Licensee sends their letter of intent with a planned schedule for submittal of the license amendment request
- Licensee performs required engineering analyses to demonstrate that the FPP will meet the NFPA 805 performance criteria
- Licensee submits license amendment request
- NRC performs observation visit(s) to assess licensee's PSA and fire modeling capabilities
- NRC headquarters reviews and approves the LAR
- Licensee completes the implementation of the new licensing basis
- ROP verifies implementation of approved program

What's the Pilot Program?

- Oconee and Harris were the first plants to commit - they requested to be pilots and were accepted; no other pilot plants are planned
- The transition of the pilot plants will be monitored by NRC headquarters through multiple observation visits
- Lessons learned from the pilot program plant transitions will be shared with other licensees and, as appropriate, documented in future revisions to the reg guide and/or NEI 04-02
- The first observation visit was in November 2005 at Duke's headquarters
- The next observation visit is in Raleigh, NC, the week of March 27, 2006 at Progress Energy's HQs

What's included in the NFPA 805 Standard?

- Chapter 1 - Program goals, performance criteria and definitions
- Chapter 2 - General approach for establishing what the FPP must include to meet the goals and performance criteria
- Chapter 3 - The fundamental FPP requirements (similar to Appendix R requirements)
- Chapter 4 - Methodology to determine what the FPP must include in order to meet the performance criteria in Section 1.5;
- Chapter 5 - Requirements for fire protection during decommissioning and permanent shutdown
- Appendices - Provide additional information and guidance for an NFPA 805 FPP. The appendices are not, in general, endorsed by the NRC, but some of the guidance is identified in the regulatory guide as acceptable to the NRC.

What's in NFPA 805 that is outside the purview of the NRC?

- Requirements for life safety protection
- Requirements for protection against plant damage unrelated to nuclear or radiological safety
- Requirements to protect against "business interruption" due to a fire

What additional qualifications are included in the new rule (10 CFR 50.48(c)(2))?

- Use of Feed and Bleed for Compliance - Not permitted as the sole means of meeting the nuclear safety performance criteria of Sections 1.5.1(b) and (c)
- Uncertainty Analysis - Section 2.7.3.5 requires an uncertainty analysis to provide reasonable assurance that the performance criteria are met. This analysis is not required for deterministic approach calculations.
- Existing Cables - In lieu of installing cables meeting flame propagation tests as required by Section 3.3.5.3, a flame-retardant coating may be applied to the electric cables, or an automatic fixed fire suppression system may be installed to provide an equivalent level of protection. Existing unprotected cables that require protection cannot be left as-is (as allowed by the italicized exception to Section 3.3.5.3).

What additional qualifications are included in the new rule (10 CFR 50.48(c)(2))? (cont)

- Water Supply and Distribution - The italicized exception to Section 3.6.4 is not endorsed and may not be applied without an LAR, i.e., standpipes and manual hose stations must remain functional following an SSE unless specifically approved by the NRC.
- Performance-Based Methods for Chap. 3 - In spite of the NFPA 805 prohibition against using performance-based methods to demonstrate equivalency to the Chapter 3 requirements, the NRC will allow this if requested and approved via an LAR. The methods proposed must satisfy the performance goals, objectives and criteria; maintain safety margins; and maintain fire protection defense-in-depth.
- Alternatives to Compliance with NFPA 805 - A licensee may submit an LAR to request to use risk-informed, performance-based alternatives to compliance with NFPA 805

What are the performance criteria for the FPP?

- **Nuclear Safety Performance Criteria -** Fire protection features shall be capable of providing reasonable assurance that, in the event of a fire, the plant is not placed in an unrecoverable condition. To demonstrate this, the following performance criteria shall be met:
  - (a) Reactivity Control
  - (b) Inventory and Pressure Control
  - (c) Decay Heat Removal
  - (d) Vital Auxiliaries
  - (e) Process Monitoring
- The licensee shall demonstrate reasonable assurance that at least one success path necessary to achieve and maintain nuclear safety performance criteria remains free from fire damage

How does the transition to NFPA 805 work?

- FPP elements that are fully compliant under the current fire protection licensing basis can transition to NFPA 805 without making modifications to the physical plant.
- Approved existing license exemptions allowed for the current FPP will be transitioned even if they deviate from NFPA 805 requirements. However, assumptions and analyses upon which the exemptions are based must still be valid.
- NRC approval must be adequately documented - it is the licensee's responsibility to show proof that each exemption has been approved in writing by the NRC for that licensee.
- Noncompliances must be demonstrated to be acceptable using the licensee's NFPA 805 plant change evaluation process or the licensee must take corrective action or submit an LAR

What will licensees do during the transition to NFPA 805?

- NEI 04-02 (endorsed by the reg guide) includes detailed guidance for transition process including analyses, calculations, and documentation.
- Licensees should confirm the following during the transition (allowing credit for NRC approved exemptions):
  - That their FPP elements meet the requirements of Chapter 3 of NFPA 805 - Fundamental Fire Protection Program and Design Elements
  - That their FPP meets the nuclear safety deterministic criteria (essentially the same as Appendix R, Section III.G.2)
  - That the performance criteria can be met for fires during low power and non-power modes
  - That radioactive release due to the direct effects of fire suppression activities (but not involving fuel damage) will be ALARA and less than Part 20 limits

What will licensees do during the transition to NFPA 805? (Cont)

- Where the above cannot be met, a plant change evaluation which assesses the impact on risk, safety margin and defense-in-depth demonstrates the acceptability of the noncompliance as determined by the licensee's ability to still meet the NFPA 805 performance criteria
- Where the plant change evaluation cannot demonstrate acceptability, the licensee must implement a FPP corrective change or submit a license amendment request. Appropriate compensatory actions must be implemented until resolution.
- Licensees will also verify/establish a monitoring program that establishes acceptable levels of availability, reliability and performance and ensures that processes are in place to take corrective actions when established thresholds are not met. This program should also ensure that the assumptions in the engineering analyses remain valid.

What will licensees do during the transition to NFPA 805? (Cont)

- Licensees will verify/establish a program that ensures adequate FPP quality, documentation and configuration control.
- Licensees will prepare a comprehensive Transition Report that will not be submitted with the LAR, but will be available for review by the NRC.
- Licensees will prepare and submit their license amendment request that should clearly establish their new NFPA 805 licensing condition.
- Licensees will calculate the risk associated with all changes identified and evaluated to be acceptable in accordance with the NFPA 805 reg guide and must report that total risk in the license amendment request.
- For transition changes, risk reductions for plant changes that are unrelated to the FPP may not be used to offset risk increases due to FPP-related changes. However, risk reduction for changes related to the FPP may be used as offsets.

How detailed will the license amendment request and SER be?

- In an attempt to minimize the problems associated with interpretation of the current fire protection licensing bases, licensees are encouraged to provide details of their proposed license basis, particularly in areas that are controversial (e.g., operator manual actions and multiple spurious actuations).
- The license amendment request should identify all FPP changes that are to be included in the transition to the NFPA 805 license
- NRC staff will provide a correspondingly detailed SER to minimize future disagreements on what constitutes a noncompliance.

What is the new standard fire protection license condition?

- The plant's current fire protection license condition will be replaced by a new standard fire protection license condition that is similar to the license condition in GL 86-10.
- The model for the new license condition will be provided in the final issue of the NFPA 805 reg guide.
- The plant specific license conditions will be approved via the LAR.
- As a minimum, the license condition makes reference to the SER and delineates the criteria for self approval of changes (including noncompliances)

What about the old Appendix R/SRP license basis?

- Since licensees must reconcile their FPP with their pre-NFPA 805 license, any noncompliances with that license and applicable regulatory requirements must be addressed (i.e., corrected, shown to be acceptable, or submitted for NRC approval).
- Following the transition to an NFPA 805 license, noncompliances will continue to be judged against the original Appendix R/SRP regulatory requirements until addressed under the terms of the NFPA 805 license
- Consequently, the ROP will consider both Appendix R/SRP and NFPA 805 regulatory requirements when inspecting an NFPA 805 plant.

What about GL 86-10 evaluations?

- GL 86-10 evaluations (show no adverse affect on safe shutdown) are referred to in NFPA 805 as existing engineering equivalency evaluations (EEEEs).
- Section 2.2 of the NFPA 805 RG has a detailed discussion on EEEEs.
- In general, acceptable GL 86-10 evaluations may transition to the new NFPA 805 license as long as the quality level and the basis for acceptability are still valid. (Guidance for what constitutes an acceptable EEEE is provided in NUREG-0800, Section 9.5.1, Fire Protection, and in Regulatory Guide 1.189.)
- Operator manual actions (referred to as recovery actions in NFPA 805) credited for protection in III.G.2 areas of the plant may not transition without being evaluated and shown to be acceptable, regardless of whether they are the subject of a GL 86-10 evaluation or not.

How will circuit issues be addressed in the transition?

- Licensees should reconcile their post-fire, safe-shutdown circuit analyses with current regulations, including the recent clarifications provided by RIS 2005-30 and the GL on the one-at-a-time issue (assuming the GL is issued final).
- Noncompliances should be identified in the LAR along with the licensee's plan to disposition
- Noncompliances for which enforcement discretion is provided may be dispositioned using NFPA 805 methodology subsequent to the completion of the transition, but compensatory measures must be implemented and maintained until resolution.

What about fire protection during low power operation and shutdown?

- NFPA 805 requires that the plant's FPP provide reasonable assurance that a fire during any operational mode and plant configuration will not prevent the plant from achieving and maintaining the fuel in a safe and stable condition.
- Consequently, the FPP must address the potential for and protection against fires during modes other than full power operation.
- NEI 04-02, Section 4.3.3 and Appendix F, provide guidance with respect to non-power plant modes.

What is the plant change evaluation process?

- Any physical or programmatic change to the plant that affects the FPP must be evaluated using an approved plant change process. Noncompliances are also treated as changes and are evaluated in the same manner.
- The evaluation consists of an integrated assessment of the acceptability of the change's impact on fire-related risk, defense-in-depth and safety margins.
- This process replaces the GL 86-10 evaluation process of the Appendix R/SRP license. It also replaces the "no adverse affect on safe shutdown" acceptability criteria with much more definitive acceptance criteria.
- In general, changes may be evaluated for acceptability using either deterministic (essentially III.G) or performance-based (fire modeling, PRA or both) methods.

What changes must be reviewed and approved by the NRC?

- Changes that are alternatives from the fundamental FPP attributes required by NFPA 805, Chapter 3, and that have not been previously approved by the NRC.
- Changes that do not meet the acceptance criteria of the approved license condition.
- Changes that have been evaluated using performance-based methods other than those described in Regulatory Position 4 of the NFPA 805 reg guide, in NFPA 805, or in the NRC-approved plant FPP.
- Changes that involve, or require conforming changes to, a license condition or the plant's technical specifications.
- Changes where the calculated risk increase for the change is >1E-6/yr for CDF or >1E-7/yr for LERF. RG 1.174 will be used as guidance in the staff's evaluation of these changes.

What latitude do licensees have when the rule specifically requires AHJ approval?

- 10 CFR 50.48(c) allows licensees to apply performance-based methods to the evaluation of deviations from Chapter 3 requirements or to apply performance-based methods that are not specifically allowed by NFPA 805 or the NFPA 805 reg guide.
- NFPA 805 requires AHJ review and approval in a number of areas and includes a general requirement for AHJ approval of any deviations from the requirements of NFPA 805 (Section 1.7 of NFPA 805).
- The NRC can grant approval for licensees to self approve changes that deviate from the requirements of NFPA 805 if the licensee has an approved methodology and acceptance criteria for evaluating the acceptability of the deviations.

What are the NRC acceptance criteria for plant change risk impact?

- If the change results in a net decrease in risk for both CDF and LERF and the impact of the change on defense-in-depth and safety margins is acceptable, prior NRC approval is not required.
- If the change results in a net calculated risk increase less than 1E-7/yr for CDF and less than 1E-8/yr for LERF, prior NRC approval is not required. Defense-in-depth and safety margins must also be acceptable.
- Where the calculated plant change risk increase is <1E-6/yr, but 1E-7/yr for CDF or <1E-7/yr, but 1E-8/yr for LERF, the licensee must submit a summary description of the change to the NRC (impact on defense-in-depth and safety margin must also be acceptable). If the NRC does not object to the change within 90 days, the licensee may proceed with implementation of the proposed change.

What are the key elements of the risk evaluation?

- The NFPA 805 RG is based on the assumption that all licensees will develop a fire PSA - the guidance provided here assumes that the plant has a fire PSA
- The risk evaluation may be either qualitative or quantitative, based on the expected level of risk increase - the greater the potential risk, the less likely a qualitative analysis will adequately demonstrate acceptability
- PSA modeling is not required for a qualitative analysis. Simple quantitative analyses may also be performed with PSA modeling.

What are the key elements of the risk evaluation? (Cont)

- Post-transition, risk reductions for plant changes that are not related to the FPP may be used to offset risk increases due to FPP-related changes in accordance with Section 2.1.2 of RG 1.174, but must be pre-approved by the NRC. Risk reductions for changes related to the FPP may be used as offsets without pre-approval by the NRC.
- Subsequent to the completion of the transition, continued post-transition tracking of the total risk for all changes identified during the transition (and reported in the license amendment request) is not required.
- Evaluation of the cumulative risks shall be performed in accordance with Section 3.3.2 of RG 1.174. Approved changes should be incorporated in the periodic updates of the PSA model.

What determines whether the affect on defense-in-depth is acceptable?

- NEI 04-02, Section 5.3.5.2, Defense-in-Depth, provides the most useful guidance on evaluating the impact of a proposed plant change on fire protection defense-in-depth
- Guidance is also provided in Section 2.2.1.1 of RG 1.174, but it addresses nuclear safety defense-in-depth (the guidance in NEI 04-02 adapts this RG guidance to fire protection defense-in-depth)
- Note that sections 2.4.4.2 and 2.4.4.3 of NFPA 805 indicate that the deterministic approach for meeting the performance criteria "shall be deemed to satisfy" requirements for defense-in-depth.

What determines whether adequate safety margins are maintained?

- NEI 04-02, Section 5.3.5.3, Safety Margins, provides the most useful guidance on evaluating the impact of a proposed plant change on fire protection safety margins
- Guidance is also provided in Section 2.2.1.2 of RG 1.174 (the guidance in NEI 04-02 is consistent with the RG 1.174 guidance)
- Note that sections 2.4.4.2 and 2.4.4.3 of NFPA 805 indicate that the deterministic approach for meeting the performance criteria "shall be deemed to satisfy" requirements for safety margin.

How is fire modeling used?

- Fire modeling may be used to demonstrate that at least one success path remains free from fire damage by comparing the maximum expected fire scenario to the theoretical fire scenario that would prevent the performance criteria from being met.
- Section 2.4.7 of Appendix D to NEI 04-02 contains a detailed discussion that is useful in evaluating the margin between the maximum expected fire scenario and the limiting fire scenario.
- Fire modeling alone does not meet the requirements for demonstrating that a change is acceptable. The impact on risk, defense-in-depth and safety margins must still be assessed. Fire modeling results can be used as input to the risk assessment.

How will circuit issues be addressed following completion of the transition to NFPA 805?

- NEI 00-01, Revision 1, "Guidance for Post-Fire Safe Shutdown Circuit Analysis," used in conjunction with NFPA 805 and the NFPA 805 regulatory guide, provides one acceptable approach to circuit analysis for a plant that has transitioned.
- Where the deterministic requirements of NFPA 805 Chapter 4 (essentially III.G.2) for the protection of required circuits cannot be met, circuit analysis assumptions regarding the number of spurious actuations, the manner in which they occur (e.g., sequentially or simultaneously) and the time between spurious actuations should be supported by engineering analysis and/or test results that are accepted by industry and the NRC.
- Aspects of circuit protection that do not conform to the deterministic requirements of NFPA 805 Chapter 4 and were not previously approved by the NRC may be evaluated using the NFPA 805 plant change process.

How should operator manual actions be addressed?

- Unless previously approved by the NRC, operator manual actions (referred to as recovery actions in NFPA 805) credited for protection in III.G.2 areas of the plant must be evaluated using performance-based methods (fire modeling, PRA or both) according to NFPA 805, Section 4.2.3.1.
- Recovery actions that meet the required performance criteria of NFPA 805 and the criteria in the NFPA 805 regulatory guide for self approval do not need to be submitted to the NRC for approval.

Will FPP quality assurance change for NFPA 805?

- In general the transition to NFPA 805 will not require changes to the existing fire protection QA program.
- The QA program for an NFPA 805 FPP should be part of the overall plant QA program.
- For fire protection systems, the licensee should have and maintain a QA program that provides assurance that the fire protection systems are designed, fabricated, erected, tested, maintained, and operated so that they will function as intended.
- As applicable, additional guidance for the fire protection QA program is provided in Regulatory Guide 1.189, Section 1.7.

Can a non-NFPA 805 plant use performance based methods?

- Plants have either an NFPA 805 license or a deterministic-based license in accordance with Appendix R or the current SRP Section 9.5.1 (a new SRP section is being prepared for NFPA 805 plants)
- Plants that have not formally adopted an NFPA 805 license, whether pre-1979 or post-1979, may not use risk-informed, performance-based methods to demonstrate "no adverse affect on safe shutdown" without first obtaining approval via an LAR.
- For these plants the risk assessment tools for evaluation of changes that impact the fire protection program have not been reviewed by the NRC or inspected against quality standards found acceptable to the NRC staff.

Summary

- NFPA 805 license replaces Appendix R deterministic approach with a risk-informed, performance-based approach to FPP using fire modeling and PSA methods
- Allows transition of much of existing FPP as-is
- Transition is a 2-year process with enforcement discretion provided (1-year extension is being considered)
- Licensees have already committed 37 NPP units
- Detailed guidance is provided by NEI 04-02, endorsed by the NRC, and the NFPA 805 Reg Guide
- Provides for a clear definition of licensing basis going forward
- Facilitates resolution of OMA and circuit analysis issues
- Allows self-approval of plant changes that affect FPP

NRC: NFPA 805 Transition Workshop
Pilot Program Lessons Learned
Harris Nuclear Plant

Jeff Ertman
Bob Rishel
Dave Miskeiwicz
Alan Holder
March 3, 2006

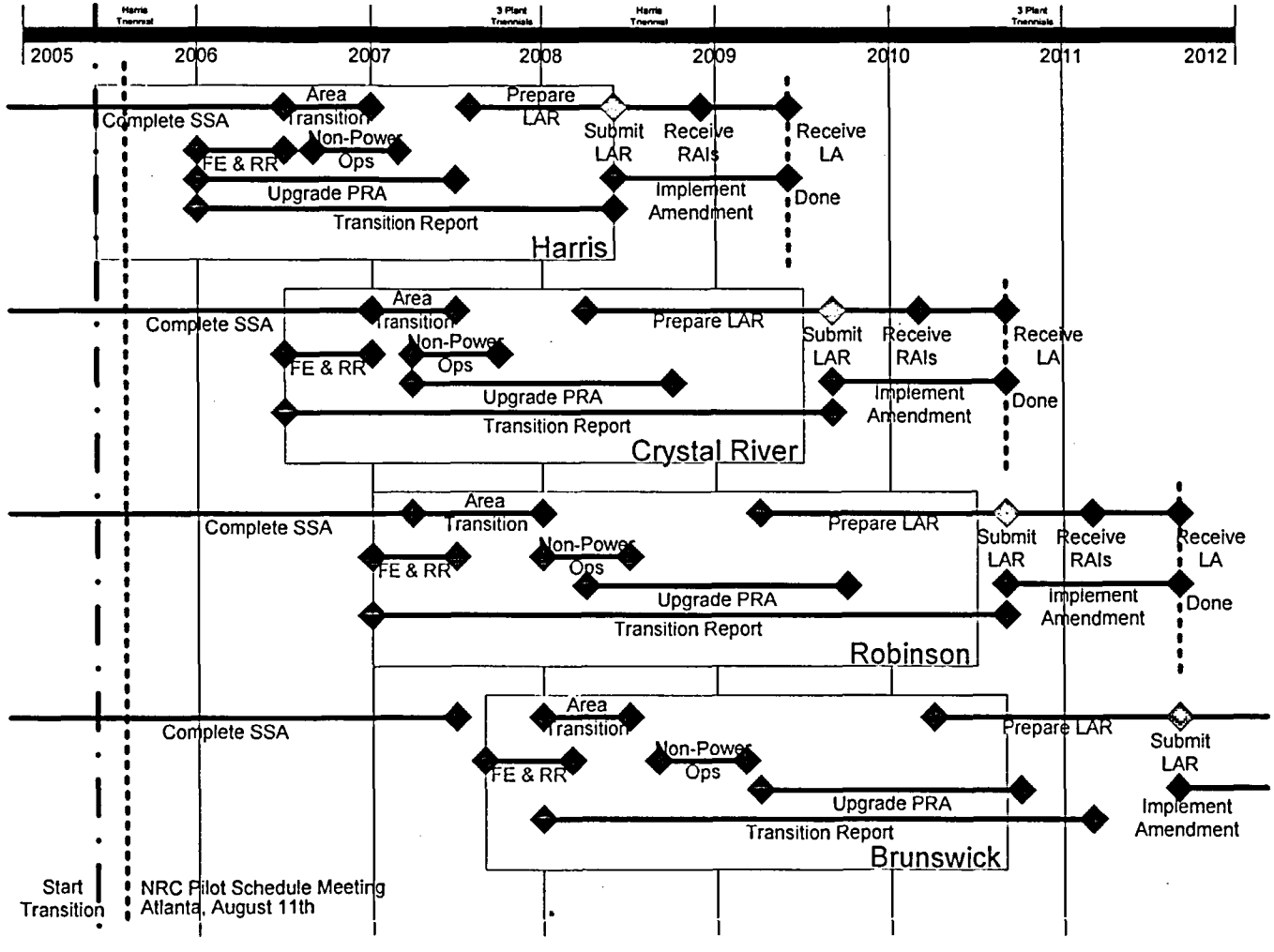
NGG Nuclear Generation Group

Progress Energy

NFPA 805 Transition Workshop 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

NFPA 805 Transition Workshop
PE Conceptual Transition Plan



NFPA 805 Transition Workshop Status

- **Key Recent Accomplishments**
  - Continue process refinement (Training, PM tools, workshop)
  - December - HNP NFPA 805 Chapter 3, Task 2.1 Partial
    - Started Brigade/Fire Response transition
  - January - HNP started Task 2.3, Hemyc Resolution
  - January - HNP started Tasked 6, Internal Events PRA
- Activities next 2 3months
  - February - HNP SSA Modification risk ranking
  - March - HNP start Task 7, Fire PRA
  - March 27-31 HNP Pilot Meeting
  - March – HNP Task 2.3 HNP start lab work for MT test
  - April - HNP start Rev 1 of SSA calc for ESFAS and IN 92-18
  - June - HNP Chapter 3, Remaining Tasks 2.1

NFPA 805 Transition Workshop
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

NFPA 805 Transition Workshop 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

NFPA 805 Transition Workshop
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:
  - Methodology to address the following:
    - Multiple circuit failures
    - Recovery Action evaluations
  - Fire PRA tasks
  - Risk Informed change evaluation process

NFPA 805 Transition Workshop
Harris Risk Review

- Harris pilot plant activities started in 2005
- During the Safe Shutdown Analysis phase some non-conformances were identified.
- The risk significance of these non-conformances was assessed
- These risk assessments are captured in both the corrective action program and a calculation

NFPA 805 Transition Workshop
Harris Risk Review

- The review used methods from NRC Fire Significant Determination process and PSA techniques
  - Developed fire ignition frequency for deficiencies
  - Developed potential fire scenarios
  - Determined conditional core damage probability for each fire scenario
  - Total risk for each fire area was established

NFPA 805 Transition Workshop 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

NFPA-805 Duke Power Transition – Lessons Learned

Dennis Henneke
Harry Barrett
Duke Power Company

Outline

- Current Status and Schedule
- Proposed Multiple Spurious License Basis
- Multiple Spurious in the Fire PRA
- PRA Scope for NFPA-805

NFPA-805 Project Status

- Project Started in May 2005.
- Nuclear Safety Performance Criteria transition (NFPA-805 Chapter 4):
  - Safe Shutdown Methodology mapping 80% complete (B-2 Table)
  - Fire area-by-fire area transition has not started yet
- Non-Power Operational Mode transition:
  - Component Selection almost complete
- Fire Protection Fundamental Program and Design Element transition (NFPA-805 Chapter 3):
  - Should start by May 2006.
  - Includes review/upgrade of 86-10s.
- Fire PRA Status – Using NUREG/CR-6850 – full Fire PRA:
  - ERIN selected as Fire PRA contractor
  - Initial Walkdowns and Fire Ignition Frequency Calculation completed
  - Fire PRA component identification is 95% complete:
    - Additional cable routing/circuit analysis will be performed.

Duke 3-Site Transition Schedule

ONS

MNS

CNS

2005				2006				2007				2008				2009		
1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd
		ONS NRC Audit					MNS NRC Audit			CNS NRC Audit								
ONS Unit 0/2	ONS Unit 3 Reconstitution (Jun 05 - Jul																	
	ONS Transition to NFPA-805 (Mar 05 – Mar 07)																	
		ONS Fire PRA (Jun 05 - Dec 06)																
	MNS Reconstitution (Feb 05 - Jul 06)																	
				MNS Transition to NFPA-805 (Apr 06 - Aug 08)														
				MNS Fire PRA (Jul 06 - Jun 07)														
				CNS Reconstitution (Dec 05 - Jun 07)														
										CNS Transition to NFPA-805 (Jul 06 - Jun 09)								
										CNS Fire PRA (Jul 07 - Jun 08)								

Duke Power®

3/3/06

Near Term Tasks (Next Six Months)

- Armored Cable Fire Testing
- Non-Power Operations Transition
  - Note: No Shutdown PRA or Shutdown Fire PRA is required for 805.
- Transient Analysis
- Manual Action Feasibility
- Fire PRA Model Development.

Multiple Spurious - LB

- A new Risk-Informed License Basis (LB) is discussed in NEI 04-02, Appendix B.2.1
  - Key to this approach is the complete analysis of multiple spurious in the Fire PRA.
- The proposed new LB for multiple spurious is listed:
  - "The Safe Shutdown Analysis shall address all single spurious and all potentially risk-significant multiple spurious failures.

Multiple Spurious - LB

- Potentially risk-significant was initially defined as follows:
  - Risk is above Reg. Guide 1.174 criteria (CDF >1E-06, LERF > 1E-07), prior to operator response.
  - Defense-in-Depth (DID) or Safety Margins are inadequate per NEI Implementation Guide, prior to operator response.

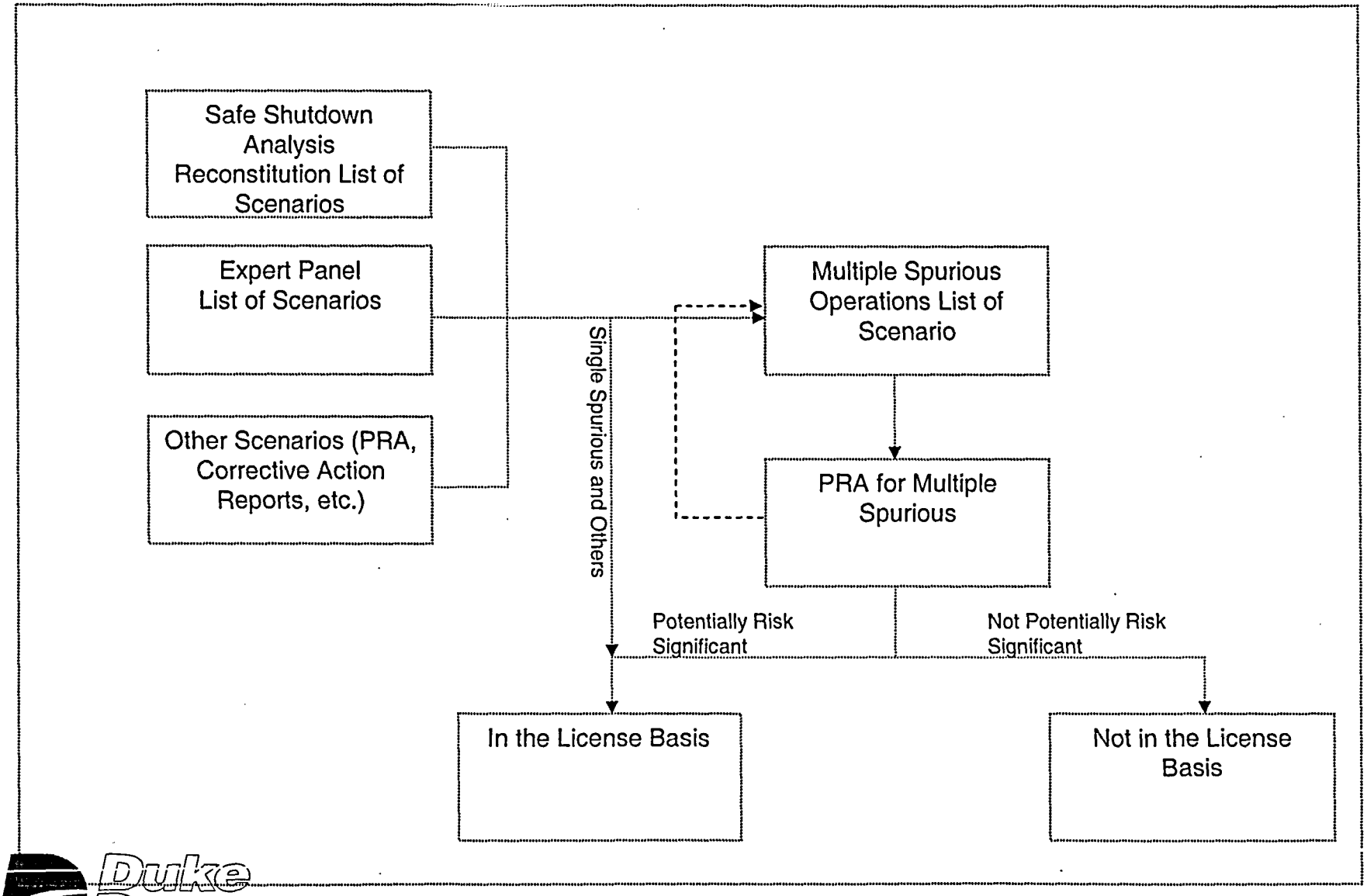
Multiple Spurious - LB

- New Multiple Spurious scenarios identified are considered outside the license basis, until they are determined to be potentially risk significant.
- Gray Area: Multiple Spurious Combinations that do not meet the "Potentially Risk Significant" Criteria, but have an estimated CDF risk > 1E-08/year (LERF > 1E-09/year), are treated as follows:
  - Design change or procedure change put in place, if possible
  - Procedural actions still meet feasibility criteria, but actions are not considered "required."

General Method for Modeling Spurious Operation in the PRA

- Three general inputs (each discussed in detail):
  - Fire Safe Shutdown Reconstitution components and scenarios
  - Present PRA modeling, including scenarios and components
  - Expert Panel Input

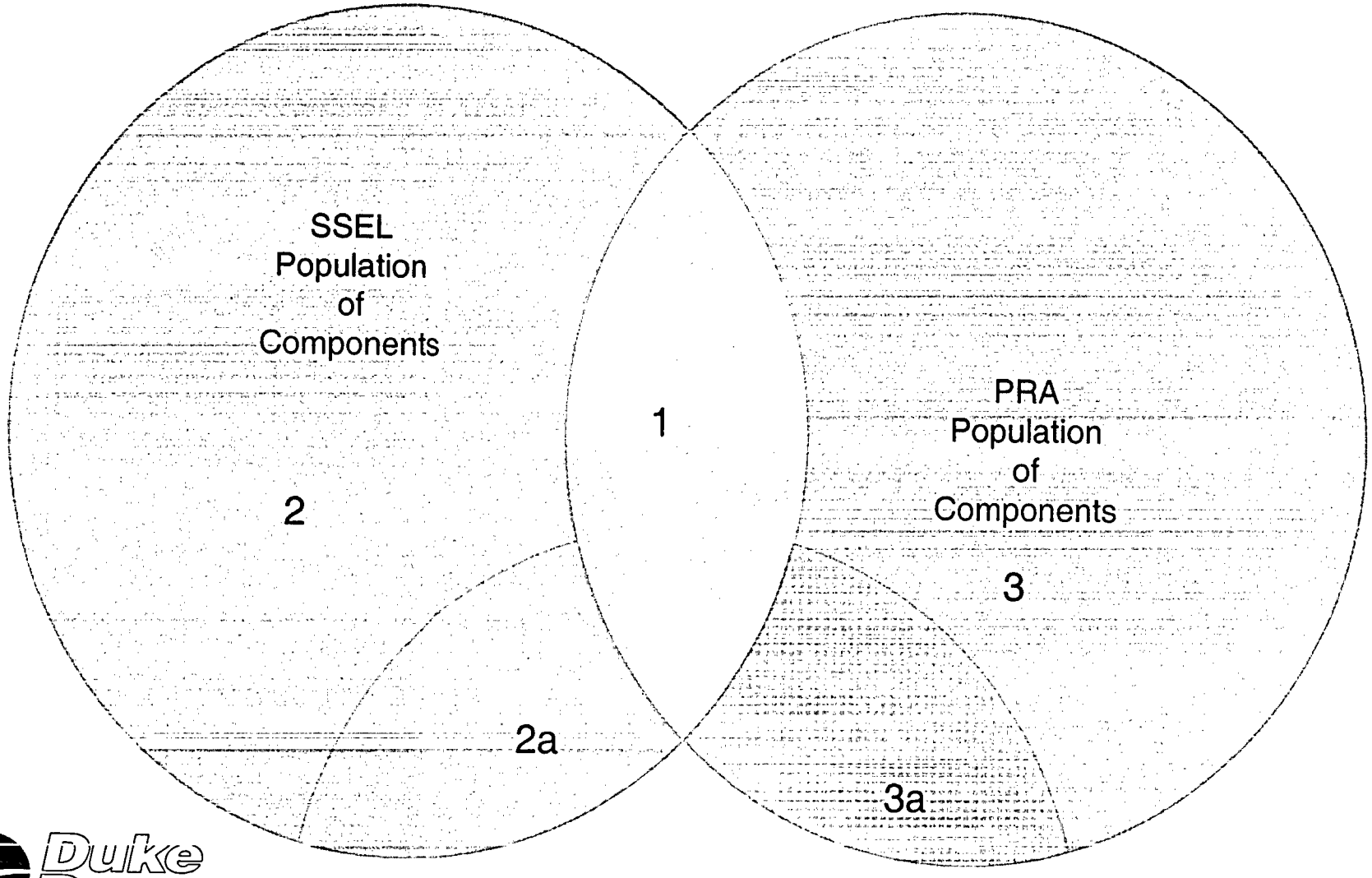
Dispositioning of Multiple Spurious



General Method for Modeling Spurious Operation in the PRA

- Expert Panel Review complete:
  - Uses NEI 04-06 scenarios and Reconstitution results as a starting point.
  - New Scenarios were identified for consideration in the Fire PRA. For example:
    - Loss of RCP Seal Injection and loss of cooling to a single Seal
    - Loss of Cooling to Letdown Heat Exchanger
    - SG Overfeed via Main Feedwater
    - Boron Dilution through Bleed Transfer (3 spurious).

PRA Scope Versus SSA



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PRA Scope versus SSA

- Area 1: A large percentage of SSA Components (electrical) are in the PRA. Affect of fire on the PRA is modeled directly through a component to basic event mapping (complete).
  - Spurious Operation is initially assumed in the PRA, unless the SSA says it can not happen.

PRA Scope versus SSA

- Area 2: SSA Components not modeled in the PRA will be reviewed to determine why it is not in the PRA:
  - Cold Shutdown
  - Supports a PRA component
    - May need to add to PRA mapping (Area 2a: Moves components into area 1).
  - Operator Actions: Review of effect on Operator actions is required by NUREG/CR-6850.

PRA Scope versus SSA

- Area 3: PRA Components not in the SSA will need to be treated in one of several ways:
  - PRA component is not in sequences that are fire-induced (SG Tube Rupture). Nothing required.
  - Assumed to Fail for all fires (spurious included).
  - Assumed routing per NUREG/CR-6850 rules.
  - Perform Cable Routing (Area 3a):
    - Likely for important PRA components.
    - May need to iterate, once detailed scenario analysis is performed.
    - May end up moving important 3a components into area 1 by adding them to the SSA SSEL.
- Initial Duke Review is showing Area 3 is small, for powered components (lots of manual valves, check valves not in SSA).
  - Some new components for long term makeup and other operator actions.

NEI 04-02

Process Discussion

Topics for Discussion

- Relationship to NFPA 805
- Relationship to Regulatory Guide
- Technical Process currently in NEI 04-02

Relationship to NFPA 805

- A structured Process for transitioning to 10 CFR 50.48(c)
- Supplemental technical guidance and methods for using NFPA 805

Relationship to Regulatory Guide

- NRC plans to endorse NEI 04-02 in a Regulatory Guide
- Draft Regulatory Guide under review

NEI 04-02 Transition Process

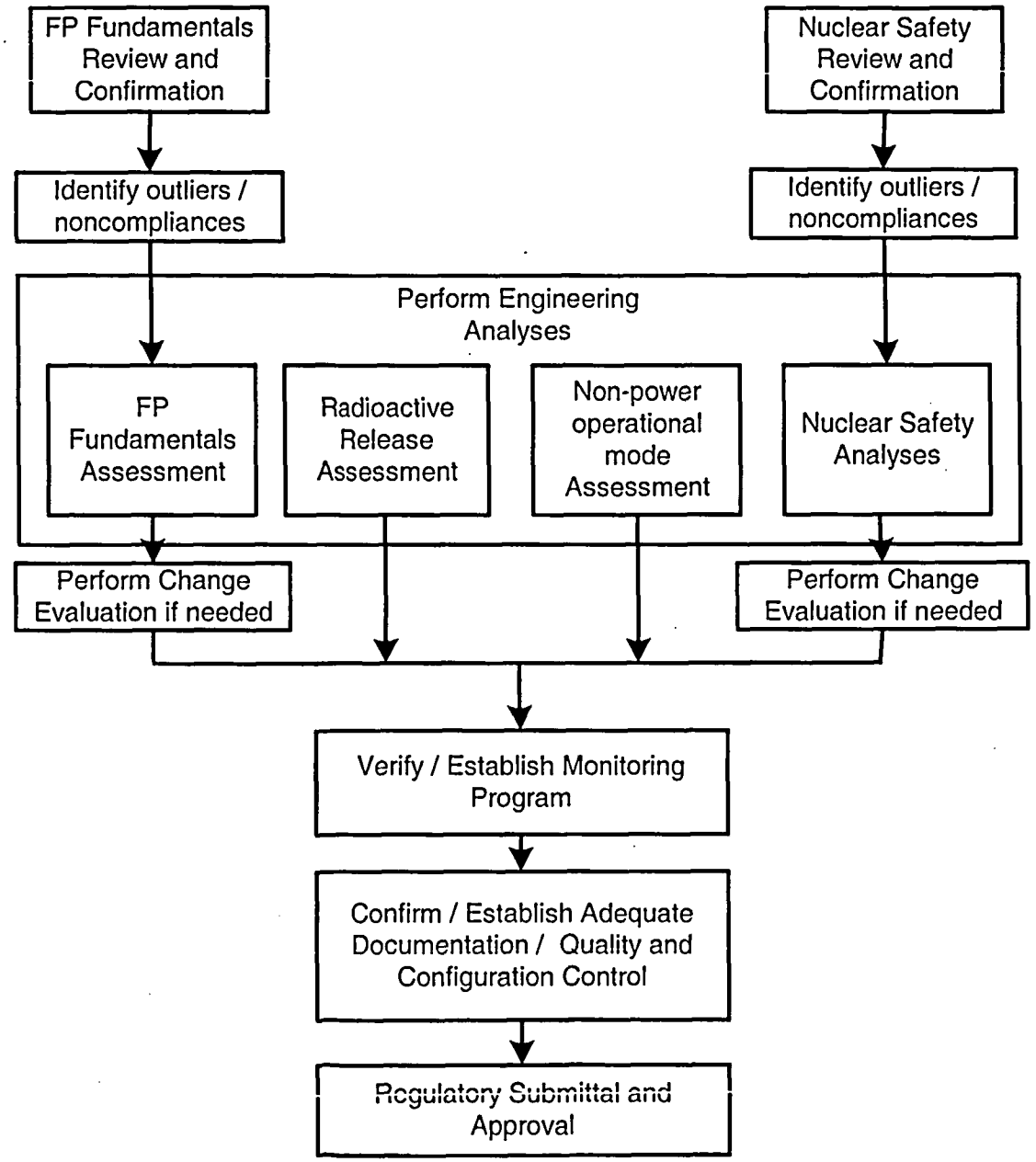
- Fundamental Program and Design Elements Transition Process
- Nuclear Safety Methodology and Fire Area by Fire Area Transition Processes
- Change Process during Transition

NEI

NEI 04-02 Technical Process

- Methods for transitioning manual actions
- Methods for multiple concurrent spurious actuations
- Change Process
  - Replaces Fire Protection Regulatory Review Process allowed by 10 CFR 50.59

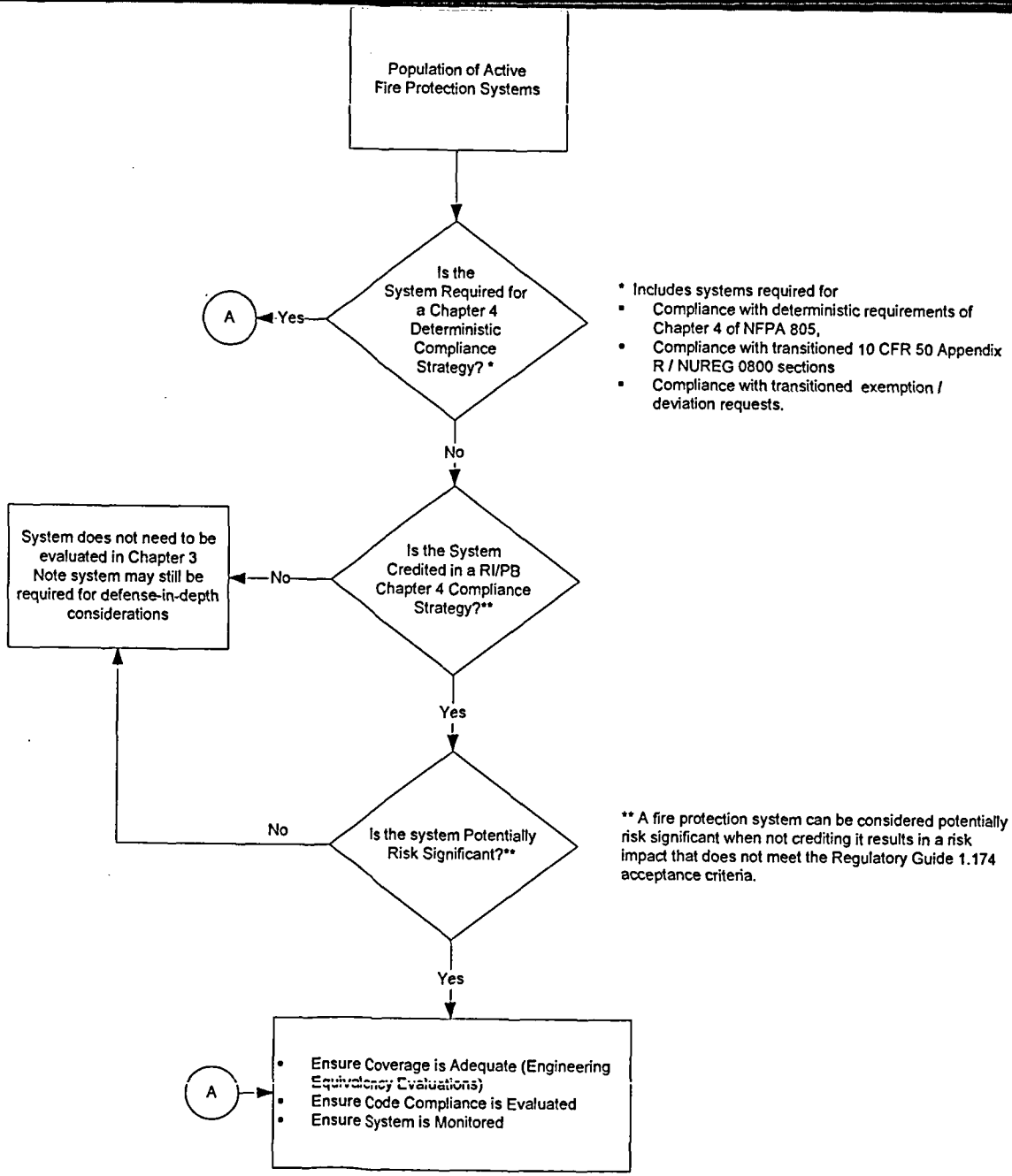
NEI


FP Fundamentals Review and Confirmation
Nuclear Safety Review and Confirmation
Identify outliers / noncompliances
Identify outliers / noncompliances
Perform Engineering Analyses
FP Fundamentals Assessment
Radioactive Release Assessment
Non-power operational mode Assessment
Nuclear Safety Analyses
Perform Change Evaluation if needed
Perform Change Evaluation if needed
Verify / Establish Monitoring Program
Confirm / Establish Adequate Documentation / Quality and Configuration Control
Regulatory Submittal and Approval

Fundamental Element Transition

- Issues Associated with Transition:
  - When is a fire protection system / feature required for Chapter 4
  - Developing an Alternate Method to allow for the continued use of Engineering Equivalency Evaluations

NEI



* Includes systems required for
- Compliance with deterministic requirements of Chapter 4 of NFPA 805,
- Compliance with transitioned 10 CFR 50 Appendix R / NUREG 0800 sections
- Compliance with transitioned exemption / deviation requests.

** A fire protection system can be considered potentially risk significant when not crediting it results in a risk impact that does not meet the Regulatory Guide 1.174 acceptance criteria.

Radioactive Release Analysis

- Review pre-fire plans and training to determine controls for potentially contaminated fire suppression water
- Revise as necessary

Non-Power Operation Transition

- Review equipment credited for Key Safety Functions during High Risk Evolutions (NUMARC 91-06)
- Evaluate those components not currently credited or credited in a different manner
- Determine 'pinch-points'
- Supplement Outage Management Procedures and Processes

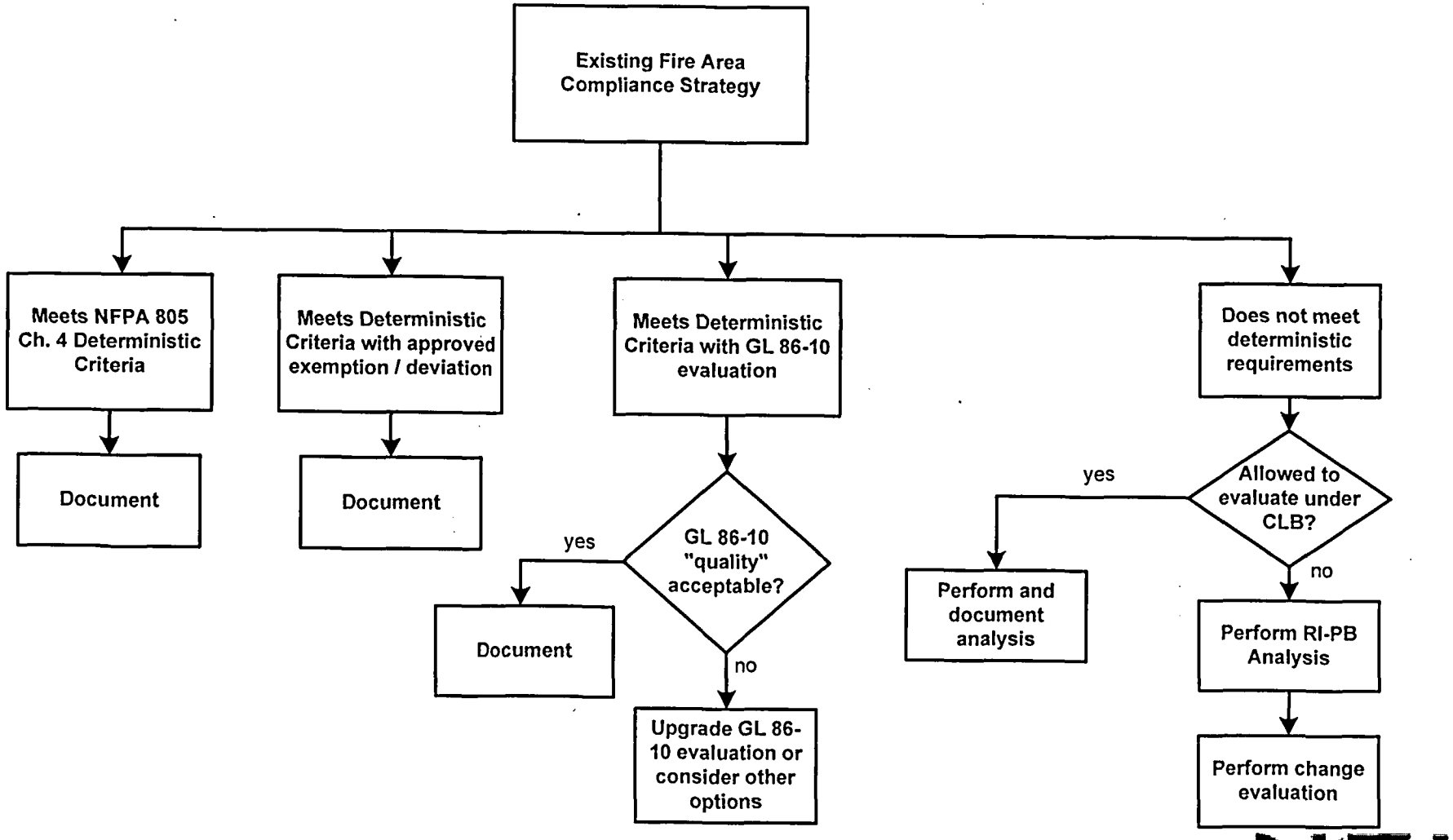
NEI

Nuclear Safety Methodology Transition

- Comparison to Methods of NEI 00-01
  - High Low Pressure Interface Definition
- A couple of Key Processes
  - Manual Actions
    - Always Requires a Feasibility Evaluation
    - Screening Process to address Reliability Issues
    - Input from Fire PRA
  - Fire Induced Circuit Failures

NEI

Nuclear Safety – Fire Area Transition



NEI

Change Process

- Mirrors the NEI 02-03
- Key points
  - Risk Review of all Changes
  - Risk Screening Provided
- Examples reviewed at each pilot meeting
- Examples will be added to NEI 04-02

NFPA Standard 805 Transition Workshop

Fire Protection – A Brave New World?

Alex Marion
Senior Director Engineering, Nuclear Energy Institute

March 3, 2006

NEI

NFPA 805 - Status

- **Utilities Submitting Letters of Intent**
  - Ameren UE, Constellation, Duke, Entergy, FENOC, FPL, I&M, NMC, NPPD, PG&E, Progress
  - Duke and Progress – pilot plants

- **NEI 04-02 – NFPA 805 Implementing Guide**
  - Risk-informed, performance based guidance
  - Rev. 2 submitted to NRC
  - Future revisions planned

- **NRC Action**
  - Regulatory guide planned for publication in April 2006

NEI

NFPA 805 Implementation

- Other documents
  - **NEI 00-01**, Revision 1,
    Guidance for Post-Fire Safe Shutdown Analysis
  - **NEI 99-04**,
    Guidelines for Managing NRC Commitment Changes
  - **NEI 96-07**, Revision 1,
    Guidelines for 10 CFR 50.59 Implementation
  - **NUMARC 93-01**, Revision 2,
    Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants
  - NEI 06-???

NEI

NFPA 805 - Issues

- Pilots in early stages
- Multiple NEI 04-02 revisions expected from pilot lessons learned
- Fire PRA – No consensus standard
- Certainty and stability in the regulatory process

Industry Activities

- Establish a Task Force
  - NEI 04-02 revisions
  - Pilot plant feedback
  - Change process
  - Fire PRA peer review
  - Interactions with NRC
- Identify, communicate and track generic issues

NEI 04-02

Issues Tracking

Issues Tracking

- Current List
- Planned Topics
- Proposed Communication Plan

Issues Tracking – Current (11/05)

- Method of treating multiple spurious operations (methods and ROP)
- Approved/Unapproved manual actions for change analysis
- Non-power operational modes transition – No Shutdown Fire PRA

NEI

Issues Tracking – Current (11/05)

- How to handle NFPA 805 Ch. 3 post-transition changes
- Tracking of post-transition changes
- PRA Peer Review
- NFPA 805 / NEI 00-01 methodology differences during transition

NEI

NEI 04-02 Pilots
Upcoming Topics for Discussion

- Fire PRA Technical Discussion/ANS Standard development and impacts
- Enforcement Discretion
- Non-Power Operational Modes Transition
- Multiple Spurious Operations Expert Panel
- T-H Analysis Acceptance Criteria
- Recovery Actions
- Human Reliability Analysis for Fire

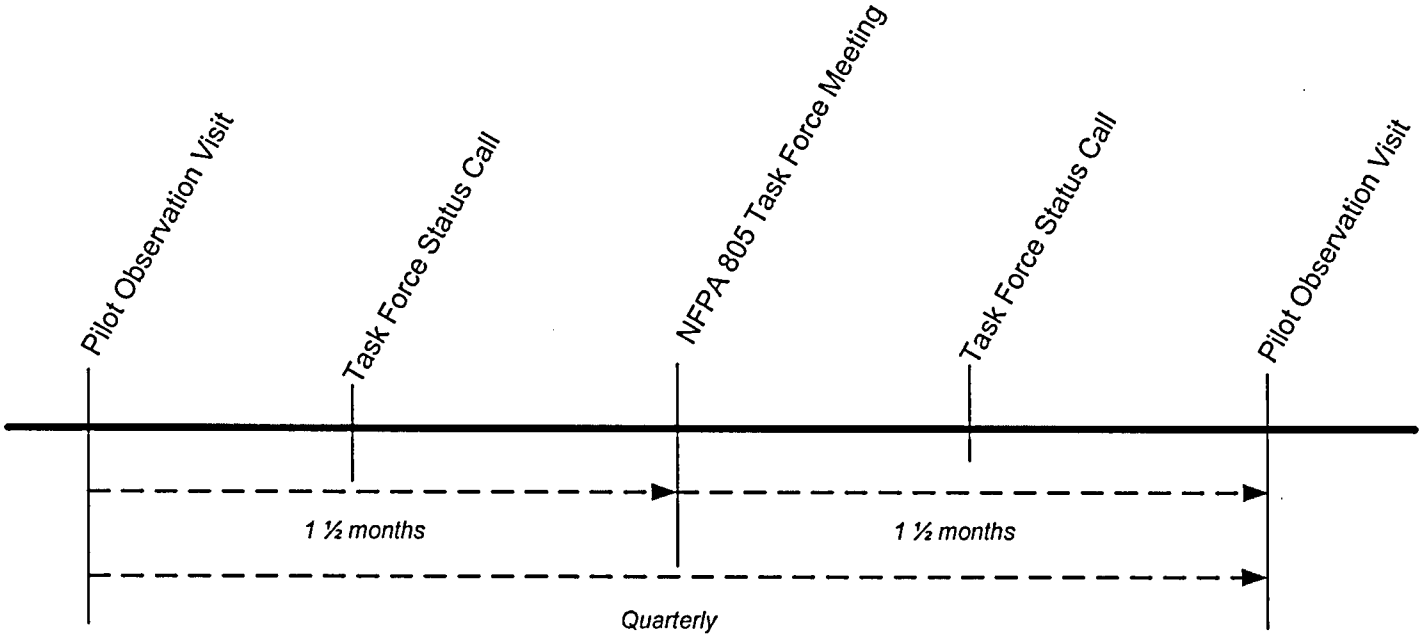
NEI

NEI 04-02 Pilots
Upcoming Topics for Discussion

- Chapter 3 Manual Firefighting
- Fire Protection QA Under NFPA 805
- FP Program Change Process
- Resolution of NFPA 805 Chapter 3 Issues
- Transition Report
- Program Documentation
- NFPA 805 License Amendment
- Interface with Regional Inspectors

NEI

Suggested Communication Process



PILOT OBSERVATION VISIT

- Conference call with NEI 805 Task Force members – periodic feedback
- Pilot utilities will restrict attendance

NFPA 805 TASK FORCE MEETING

- Discuss resolution of topics from previous pilot meetings
- Discuss upcoming topics for next pilot meeting
- Get comments and input from task force members

TASK FORCE STATUS CALLS

- Periodic conference calls with pilots, task force and NRC to discuss action items
- Status of NEI 04-02 changes and schedule

PROPOSED NRC – NEI INTERFACE

- Upon resolution of issues – NEI sends letter to NRC asking for interim endorsement
- NRC sends concurrence
- Interim Revision of NEI 04-02 gets issued so that non-pilots can continue to work with minimal risk impact to processes