

Donald C. Cook Nuclear Plant

NFPA 805 Pre-LAR Submittal Meeting

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Meeting Purpose

Project Status

- Nuclear Safety Capability Assessment (NSCA)
- Fire Modeling
- Fire PRA
- Fire Risk Evaluation (FRE)
- Fire Safety Analysis (FSA)
- Recovery Actions (RAs)
- Monitoring Program
- NPO Analysis

LAR Submittal and Implementation

Nuclear Safety Capability Assessment (NSCA)

- Documents Chapter 4 Compliance
- NFPA 805 Analysis Model (SAFE)
 - Fire Area Analysis Strategies
- Identification of VFDRs
- Status - Analysis Complete

Fire Modeling

- Used Verified & Validated (V&V'd) Fire Models
- 57 Fire Areas
 - 18 Deterministic,
 - 39 Performance Based
- Process followed NUREG/CR-6850 and the Fire PRA Standard
- Performed over 900 scenarios supporting the Fire PRA
- Status - Complete

Fire PRA

- Fire PRA Peer Review - October, 2009 by WOG
 - Fire PRA Integrated with Internal Events PRA
 - No Significant Finding
 - 61 F&Os - 36 Suggestions, 25 Findings – All Impacts Resolved
 - PWROG Indicated That Overall, the Fire PRA Quality was Found to be Very Good with Many Elements Being Performed at the State-of-the-Art Level
- Status – Analysis Complete

Fire Risk Evaluation

- Determined Delta Risk between Compliant Plant and NFPA 805 Plant
- Over 900 Scenarios Evaluated
- Over 260 VFDR Risk Evaluations
- Based on NUREG-6850 Guidance

- Status – Analyses Complete

Fire Safety Analysis

- 57 FSAs Document Each Fire Area
 - Fire Protection Systems and Features
 - NSCA Compliance Strategy
 - VFDRs and Recovery Actions
 - Fire PRA Risk Evaluation Results
 - Radioactive Release Review
 - NPO Compliance Review
 - Monitoring Program Input
 - Defense-In-Depth and Safety Margin Review
- Status - Complete

Recovery Actions

Appendix R

- Cold Shutdown – 1221 OMAs
- Hot Standby – 598 OMAs

NFPA 805

- VFDRs - 260
 - Recovery Actions – 140
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- Status – Evaluations Complete

Monitoring Program

- Scoping of Fire SSCs based on Key Programmatic Elements and Engineering Assumptions
- Screening Using Risk Criteria – CDF and LERF
- Risk Target Value Determination based on Risk Assessment
- Monitoring Implementation To Be Consistent with FAQ-0059

Non-Power Operations

- Higher Risk Evolution (HRE) Key Safety Functions (KSF) Contingency Plans/Protective Measures Identified
- Reviewed Existing Plant Outage Processes to Determine Equipment Required for KSF, Including Support Functions
- Established Defense-In-Depth Features
- Update Procedures Before “Going Live”

LAR Status

- Using NEI Template
- Nine Packages + Assembly
 - 3rd Party Review
- Eight Packages Complete
- No Significant Gaps or Alternate Methods
- Completion Target for Final Review –
5/31/2011

Project Implementation

- Modifications and Implementation Items to be Completed Prior to Issuance of NRC SE
 - MOV IN 92-18 Mods
 - Conversion of CO₂ Systems from Manual to Automatic
 - Transient Combustibles Control with Combustible Free Zones (CFZ)
 - Develop Monitoring and NPO Programs
 - Update Procedures and Other Documentation
- Training After Receipt of NRC SE
- “Go Live” 90 Days after Receipt of NRC SE

Summary

- Complete LAR to be Forwarded On or Before 6/29/2011
- Nothing Unique or Challenging
- No Issues Requiring Enforcement Discretion
- Modifications to be Completed Prior to Issuance of NRC SE
- “Go Live” 90 Days after Receipt of SE (To Allow for Training)