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# **NFPA 805 Pilot Plant LAR Reviews**

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# Discussion Topics

- Background
- NFPA 805 LAR Review Process (Lessons Learned)
- NFPA 805 Pilot LAR Review Status
- NFPA 805 Pilot Plant LAR Issues
- NFPA 805 Related Issues
- Summary



# Background



- NRC has designated two licensees as NFPA 805 Pilots
  - Duke Energy's Oconee Nuclear Site
  - Progress Energy's Shearon Harris Nuclear Plant
- Both Licensees submitted NFPA 805 License Amendment Requests (LARs) in May 2008



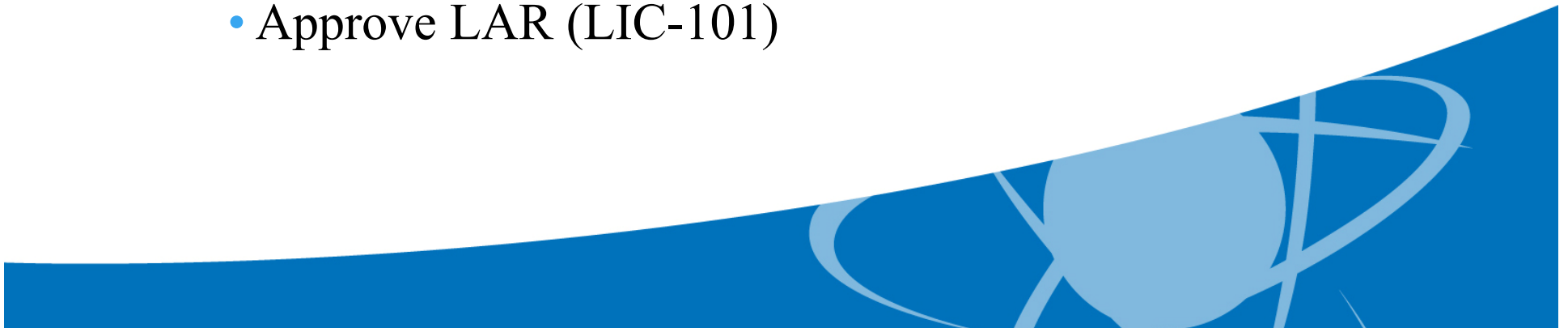
# LAR Review Process

- **Prior to the LAR Submittal**
  - Licensee Complete Fire PRA Peer Review
    - Address F & O Resolution
  - Set-up SharePoint Site
    - Back-up Information
    - Reference Use Only



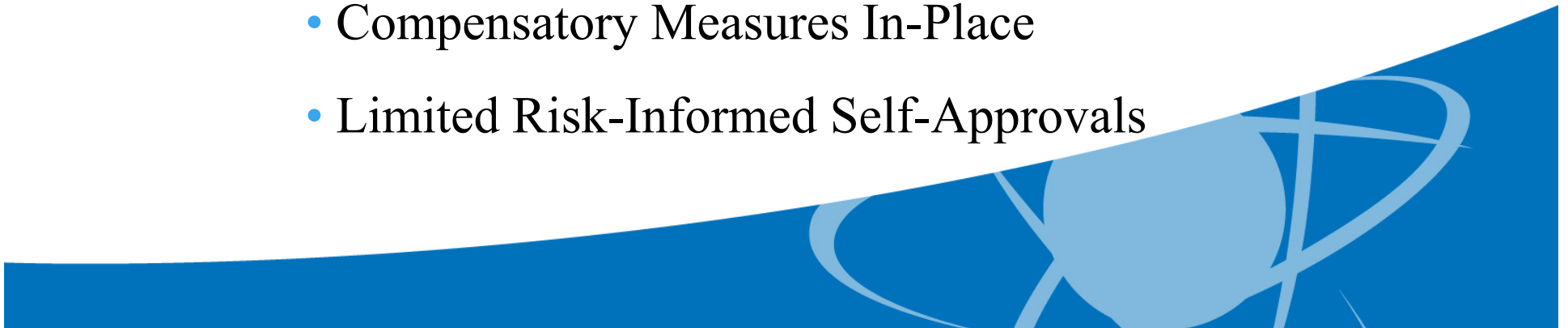
# **LAR Review Process**

- **After the LAR Submittal**
  - Acceptance Review (LIC-109)
  - LAR Review (LIC-101)
  - Site Audit (LIC-111)
  - Discuss Draft RAIs w/ Licensee (LIC-101)
  - Issue RAIs (LIC-101)
  - Complete SE (LIC-101)
  - Approve LAR (LIC-101)



# **LAR Review Process**

- **Post SER Approval**
  - Conditional NFPA 805 Plant
  - NFPA 805 Program Implementation Period
    - Monitoring Program
    - Develop Procedures
    - Conduct Training
  - NFPA 805 Modification Period
    - Compensatory Measures In-Place
    - Limited Risk-Informed Self-Approvals



# LAR Review Process



- **Post NFPA 805 Modifications**
  - Compliant NFPA 805 Plant
  - Remove NFPA 805 Compensatory Measures
  - Self-Approval includes Risk-Informed Program Changes in accordance with License Condition



# NFPA 805 Pilot LAR Status



- IT'S BEEN A VERY BUSY YEAR!
  - Pilots Submitted Supplements to LARs
  - NRC Staff performed Pilot Site Audits
  - NRC Staff generated Requests for Additional Information (RAIs)
  - Pilots responded to those RAIs





# NFPA 805 Pilot LAR Status



- Shearon Harris
  - Fire PRA Staff Review on 2/8/08
  - Harris NFPA 805 LAR Submitted 5/29/08
  - LAR Acceptance Review Letter 9/26/08
  - NRC Staff Performed Site Audit 3/16 – 20/09
  - NRC Requested Additional Information on 8/6/09
  - NRC Reviewing RAI Responses
  - NRC Preparing SER



# NFPA 805 Pilot LAR Status



- Oconee
  - Fire PRA Staff Review on 3/21/08
  - Oconee NFPA 805 LAR Submitted on 5/30/08
  - LAR Acceptance Review Letter 2/2/09
  - NRC Staff performed Site Audit 2/23 – 27/09
  - NRC Sent RAIs on 6/18/09
  - NRC Received RAI Responses 8/3/09
  - NRC Sending Supplemental RAIs 9/18/09
  - NRC Preparing SER

# Pilot Plant LAR Issues

- Recovery Actions
  - Defense-in-Depth Recovery Actions
    - Feasibility and Reliability Reviews
  - Delta CDF/LERF Needed
- Incipient Detection (Harris)
- Declaration of “Safe & Stable” Condition (Ocone)
- Need Final Submittals and Calcs



# Pilot Plant LAR Issues

- Fire PRA Quality
  - Peer Review Results (including Internal Events PRA)
  - Modifications
  - Calculation errors
  - “Deviations” from NUREG/CR-6850 (EPRI 1011989)
  - Fire PRA-related FAQs still ongoing
- Transition Report Quality (Attachments)
- Radioactive Release

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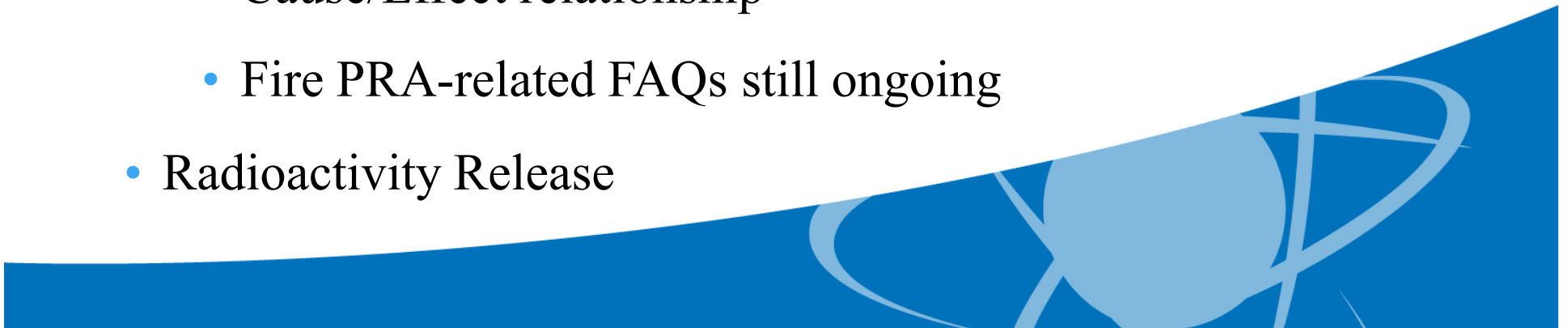
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This could also be a bullet under Fire PRA Quality.

rhg, 9/9/2009

# NFPA 805 Related Issues

- Recovery Actions
  - Additional Risk of Recovery Actions
  - Primary Control Station definition
  - Alternative/Dedicated Shutdown (III.G.3)
- Fire PRA Quality
  - “Approved Methods” vs. “Acceptable to AHJ”
  - Cause/Effect relationship
  - Fire PRA-related FAQs still ongoing
- Radioactivity Release



# Summary

- We received the NFPA 805 LARs from the pilots
- We performed a Staff Review of the pilot Fire PRAs
- We completed acceptance review of the pilot LARs
- We are performing technical review of the pilot LARs
- We have audited the pilot plant sites
- We have issued formal RAIs
- We are evaluating RAI responses
- We are scheduled to complete pilot LAR Reviews in 1<sup>st</sup> Qtr '10

