

Licensee Perspective on Changes During Construction



Al Paglia
Manager, Nuclear Licensing
New Nuclear Deployment
South Carolina Electric & Gas Co

Challenge

- ▶ First time build of a plant, Licensing Basis changes are inevitable
- ▶ Regulatory approval required for Licensing Basis changes during Construction
- ▶ License Amendment/Exemption requests (LARs) process option is needed to allow construction to proceed while LARs are being reviewed and approved

Challenge (cont)

- ▶ Practical approach needed for changes during construction
 - Licensees need to maximize efficiency and minimize uncertainty in construction schedules
 - NRC needs to be notified so it can adjust inspections to changes during construction
 - NRC must thoroughly review LARs (as always)
- ▶ Understood that construction prior to LAR approval is at risk

Need for Changes

- ▶ Sources of change are many:
 - Design Finalization details impacting Tier 1 or Tier 2* material
 - Site Specific Engineering changes that require a LAR
 - Construction driven changes that require a LAR

Examples of Potential Change

- ▶ Final design changes that impact physical layout and room dimensions
- ▶ Wall/room dimensions are Tier 1 in the DCD
- ▶ License amendment and exemption would be required

Examples of Potential Change

- ▶ Equipment rearrangement requires a change to Fire Areas
- ▶ Fire Areas designated as Tier 2*
- ▶ License amendment would be required

Examples of Potential Change

- ▶ Construction tolerances specified in the DCD
- ▶ Construction as built dimensions slightly exceed tolerances specified in Tier 1
- ▶ Acceptable but requires a LAR

Examples of Potential Change

- ▶ Other possibilities might include:
 - Changes requiring additional equipment qualification not designated in the DCD
 - Addition of a maintenance access hatch not shown in DCD figures
 - Addition of spare containment vessel penetrations beyond those shown in the DCD

Timing Considerations

- ▶ License Amendment and Exemption requests may be approved prior to construction or installation
- ▶ Amendment/Exemption request approval prior to construction does not impact the schedule
- ▶ Three potential scenarios where normal process would impact the construction schedule

First Scenario

- ▶ Emergent construction issue
- ▶ Need to move forward with constructing engineered change to maintain schedule
- ▶ Need to notify NRC and receive concurrence before with proceeding at risk
- ▶ LAR request prepared, submitted, and reviewed in parallel
- ▶ Timeliness of regulatory concurrence commensurate with licensee construction schedule requirements

Second Scenario

- ▶ LAR submitted in advance of the need for construction
- ▶ LAR review cycle expected to exceed time to begin construction
- ▶ Need to notify NRC and receive concurrence before with proceeding at risk

Third Scenario

- ▶ LAR approval expected before need for construction
- ▶ However, either
 - Review cycle of request extends beyond need to begin construction
 - Construction schedule advanced and the review schedule is no longer adequate
- ▶ Need to notify NRC and receive concurrence before with proceeding at risk

Objectives

- ▶ Practical approach needed to address the above three scenarios while assuring protection of public health and safety
- ▶ Early and frequent communication with Staff on emerging needs considered essential
- ▶ Communications would facilitate Staff resource planning and most efficient review cycles

Industry CdC Team

- ▶ NEI Team was formed
- ▶ Efforts with Staff have produced significant progress to date
- ▶ Russ Bell will cover the approach and interactions with the Staff

Questions?
