Criticality Safety Control Implementation at Savannah River Nuclear Solutions

2018 ANS Winter Meeting

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Topics To Be Covered

• What are the main implementation method(s) at your facility?
• Who/What organization is responsible for implementation of NCS requirements?
• How is deimplementation controlled/performed (removal of NCS requirements for a process)?
• What hurdles are met during implementation (e.g., physical modifications)?
• What group or organization takes ownership of NCS controls, assumptions (from analysis), and process boundaries (normal condition)?
• Who/What organization responds to abnormal conditions?
What are the main implementation method(s) at your facility?

- **Complex NCSE change(s) (annual update [TSR/DSA change]):**
  - Document Safety Basis Implementation Plan
  - Revise/issue/approve the following:
    - Procedures/postings
    - NCS Training
    - NCS linking documents (LDD)

- **Minor NCSE change(s) (no TSR/DSA change):**
  - Document Implementation Plan
  - Revise/issue/approve the following:
    - Procedures/postings
    - NCS Training
    - NCS linking documents (LDD)
Who/What organization is responsible for implementation of NCS requirements?

- The Operation organization or the Engineering and Operations organizations.
  - Operations plays the major role for implementing NCS requirements.
  - Development and revision of the implementing procedures is an iterative process supported by Operations, Engineering, Nuclear Safety and Criticality Safety.
  - NCS reviews/approves all implementing items (training, procedures, postings, etc.).
How is deimplementation controlled/performed (removal of NCS requirements for a process)?

• Operation Shutdown/Closure:
  – Cancel operating procedures/postings
  – Archive NCSE
  – Revise training
  – Revise LDD (delete specific cross-walk data)

• Operation Standby:
  – De-activate operating procedures/postings
  – NCSE remains active
  – Revise training
  – Revise LDD (note that operation is not currently being performed)

• For both situations DSA/TSR changes may also be necessary and implementation plans utilized.
What hurdles are met during implementation (e.g., physical modifications)?

- Facilities are old and/or have been repurposed.
  - Minimal engineered features are available or credited.
  - The few engineered features utilized have been implemented for some time.

- Other hurdles identified during implementation are generally related to administrative controls and communication between organizations or facilities.
  - Implementation plans are frequently being utilized to mitigate these issues.
What group or organization takes ownership of NCS controls, assumptions (from analysis), and process boundaries (normal condition)?

• Most all organizations (e.g., Operations, Engineering, NCS) take ownership of NCS requirements to ensure proper implementation and compliance.

• Ownership:
  – Evaluation, analysis and procedure approval – NCS
  – Implementation – Operations or Operations/Engineering
Who/What organization responds to abnormal conditions?

- Depending on the nature of the abnormal condition different organizations would respond.
- Operations and Engineering are usually involved in all.
- If it is thought to have NCS connotations then NCS would be notified to respond.
- Other organizations that could also be involved/notified include:
  - Nuclear Safety
  - Radiation Protection
  - Fire Protection
  - NMC&A
  - Transportation
Questions?