

Graded Approach to Dry Storage Cask and ISFSI Licensing

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Nuclear Plant Outlook

- Several U.S. nuclear plants have shut down or are challenged for economic reasons
- NRC resources will be severely constrained in this environment (as recognized by project AIM)
- “Business as usual” approach will not successfully address these challenges

Industry Response to the Challenge



Industry Goals

- Continue to enhance the already high levels of safety and reliability
- Identify opportunities and re-design fundamental plant processes to improve efficiency and effectiveness
- Use innovative technology to increase efficiency across the industry
- Educate and drive awareness of the value of nuclear energy – particularly the economic and environmental benefits

Four Building Blocks

- **Building Block 1: Analysis and Monitoring**
Objective: Analyze plant cost drivers and identify opportunities to improve efficiency.
- **Building Block 2: Value Recognition**
Objective: Leverage federal and state policies to ensure recognition of nuclear energy's value.
- **Building Block 3: Process and Program Redesign**
Objective: Re-design selected processes to improve efficiency while advancing the fundamentals of safe, reliable operation.
- **Building Block 4: Strategic Communications**
Objective: Implement a communications strategy to ensure industry engagement in the initiative.

Common Ground

- **Industry *Delivering the Nuclear Promise* Building Block 3:**
 - Re-design selected processes to improve efficiency while advancing the fundamentals of safe, reliable operation.
- **NRC *Project AIM – “Why Does the NRC Need to Change?”***
 - “Efficiency is one of NRC’s five principles of good regulation”
 - “Agency processes must be leaner, use resources more wisely”
 - “We need to improve our efficiency in accomplishing our safety, security, and safeguards mission”

The DCS Efficiency Improvement Imperative

- Tasks required to implement DCS matter, and must be done more efficiently
 - Fuel selection packages
 - Operations and maintenance
 - Security, Rad protection
 - Regulatory
- Even though most DCS costs reimbursable, DCS still requires NRC and plant resources that could be dedicated to other activities
- The effects of inefficient DCS processes are significant and must be addressed

CoC Content

- CoC content is directly proportional to cost
 - CoC amendments
 - Preparation (CoC holder)
 - Review fees (CoC holder)
 - Implementation (Licensee)
 - Fuel selection package complexity
 - 72.212 Report complexity, revisions
 - Every applicable CoC requirement needs to be addressed in the site 72.212 Report

CoC Content

- Overall level of detail in CoCs not commensurate with low potential for DCS to affect public health and safety
 - Creates need for amendments that are not safety-significant
 - Restricts CoC holder and licensee ability to use 10 CFR 72.48 to make changes that should not require NRC approval
- There are opportunities to simplify CoC content without affecting safety of DCS
 - Allow NRC and Industry resources to focus on safety-significant matters

CoC Simplification

- LCOs are generally in good shape
- Other areas of the CoC are ripe for simplification
 - Many current CoC requirements are, more appropriately, the domain of the QA program, e.g., neutron absorber fabrication
 - Fuel specifications go well beyond 72.236(a)
 - Dose rate limits add no safety benefit beyond that already provided by existing regulation (e.g. 10 CFR Part 20)
 - Not a reliable indicator of a misloading
 - Plants control DCS dose via radiation protection program like any other activity
 - Some requirements simply state that other regulations must be followed, e.g. Part 20, 72.48, etc.

QUESTIONS?

