

NEW STANDARD TECHNICAL SPECIFICATIONS



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PHILOSOPHICAL GOALS

- **Assure overall storage goals are met (subcriticality, control radiation exposure, retrievability, confinement)**
- **Remove unnecessary detail**
- **Move less safety significant parameters to administrative programs**

PHILOSOPHICAL GOALS

CONTINUED

- **Make specifications more performance-based**
- **Establish new process to change cask contents**
- **Maintain consistency with site-specific requirements (10 CFR 72.44)**

IMPLEMENTATION

- **To implement, a CoC holder will have to;**
 - ▶ **Identify appropriate LCO completion times, based on safety significance and safety analysis**
 - ▶ **For TSs removed or relocated into the administrative programs, verify that the SAR describes a method for determining acceptable values**
 - ▶ **Request NRC approval through 72.230 or 72.244, as applicable**

IMPLEMENTATION

CONTINUED

- **The NRC will encourage CoC holders to transition completely to new STS.**
- **Cask STS can be used as a model for site-specific TS.**

METHODS REVIEW

- **Approval occurs through the normal certificate amendments**
- **Methods will need to be described in enough detail for the NRC to make a finding**
- **Methods need to stand alone**
- **NRC anticipates that some SAR described methodologies are already sufficient (e.g., structural), other methodologies may require additional work (e.g, criticality)**

FINALIZATION

- **We welcome any feedback from the public**
- **NRC intends to issue STS as a draft NUREG report**
- **After gaining experience using the STS, the NRC plans to issue final NUREG report**

MEETING STORAGE GOALS

- **Sub-Criticality**
 - ▶ **Fuel Specifications**
 - ▶ **Poison Plate Loading**
 - ▶ **Assembly Pitch**
- **Minimize Dose**
 - ▶ **Fuel Specifications (limit source term)**
 - ▶ **Surface Dose Rate Program**
 - ▶ **Surface Contamination Program**

MEETING STORAGE GOALS

CONTINUED

- **Retrievability**
 - ▶ **Fuel Temperature**
 - ▶ **Decay Heat**
 - ▶ **G-Load (fuel)**
- **Confinement**
 - ▶ **G-Load (cask)**
 - ▶ **Leak Rate Program**

FUEL PARAMETERS

- **Fissile Isotopes (UO₂ vs. MOX)**
- **Maximum Enrichment**
- **Fuel Class (e.g., 14x14, 15x15)**
- **Number of Fuel Rods**
- **Number of Water Holes**
- **Maximum Burnup**

FUEL PARAMETERS

CONTINUED

- **Minimum Cooling Time**
- **Minimum Enrichment**
- **Cladding Material**
- **BPRA/TPAs (cooling time and burnup)**
- **Maximum Design Fuel Assembly Weight**
- **Decay Heat**
- **Fuel Condition (intact, damaged or debris)**