Compatibility and Integration of 10 CFR Parts 71 and 72 Requirements

Michele Sampson, Senior Project Manager  
Division of Spent Fuel Storage and Transportation, NMSS  
U.S. Nuclear Regulatory Commission

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Overview

• Background

• Issue Summary

• Considerations
Background

• 10 CFR Parts 71 (Transportation) and 72 (Storage)

• Current regulations are flexible enough to:
  – accommodate a wide range of operational and design conditions
  – support future changes in technology/policy (because they are based on performance requirements rather than specific technologies)

• However, current regulations permit operational and design conditions:
  – that are based on differing assumptions
  – that may result in inconsistencies
10 CFR Part 72

TRANSPORT OPERATIONS

DISPOSAL OPERATIONS

10 CFR Part 71

STORAGE OPERATIONS
Storage

Licensee can use larger capacity casks to minimize number of casks needed.

Large casks could have high heat loads.

Storage cask size currently not constrained by regulations on repository design or transportation size limits.

Up to 40 year license terms.

Transport

Casks must be transportable by rail or legal weight truck.

Entire storage cask or only components of the storage cask (i.e., canister) may be used for transportation.

Fuel in large storage casks could be repackaged for transportation.

Certificates of Compliance are issued for 5 year terms.
Storage Only

Must maintain wet or dry unloading/loading capability

Dual Purpose Cask

Must have design approved under Parts 71 and 72 and have hardware aging plan for life of storage

Canister Based System

Must have an approved canister design under Part 72 that can be shown to be transportable in a Part 71 approved overpack at the proposed time of shipment

Transportation
Considerations

• Development of more detailed requirements regarding the aspects of transportation which should be considered as a part of storage licensing.
Considerations

• Revision of Part 72 to incorporate the preliminary determinations required under Part 71 prior to a package being used for transport.
Considerations

• Revision of Part 71 regulations to address unique aspects of the safe transportation of spent nuclear fuel after it has been in dry cask storage for a specified period.
Considerations

- Identification of common technical analyses for storage and transportation regulations and incorporation of the analyses into one regulation.
Considerations

• Revision of storage and transportation requirements to allow the issuance of a combined Certificate of Compliance.

• Consideration of the impact Part 71 revisions would have on the ability of cask vendors to use storage systems for international transport.
Feedback

• What provisions of the storage and transportation regulations would benefit from enhanced integration and/or compatibility?

• What are the potential issues with changing the current regulatory structure for storage and transportation?
Contact

• Steve Ruffin
  – steve.ruffin@nrc.gov

• Michele Sampson
  – michele.sampson@nrc.gov