

Security Issues for Spent Fuel Storage

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Nuclear Future
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Overview

 NRC regulations and security orders establish requirements for the protection of spent nuclear fuel (SNF) in storage

- Security requirements provide high assurance of adequate protection of -
 - Public health and safety
 - Common defense and security
 - Environment



Storage Rulemaking

- Independent spent fuel storage installation (ISFSI) security rulemaking is intended to address -
 - Generic applicability of post 9/11/2001 orders
 - Lessons learned from previous NRC inspections
 - Regulatory consistency and clarity issues for both types of ISFSI licenses (general & specific)
- Hardened on site storage (HOSS)
 - Not a "term of art" used by the NRC
 - Raised in Petition for Rulemaking PRM-72-6
 - To be addressed in the ISFSI security rulemaking



Rulemaking (cont.)

- Rulemaking development underway
 - Draft regulatory basis issued for public comment in December 2009
 - Significant comments received opposing several key technical approaches
- Staff seeking direction from Commission before proceeding further
 - Staff paper SECY-10-0114 (08/26/2010)
 - ADAMS Package No. ML101960614

http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2010



Protective Strategy

- Protective strategy achieved through security personnel, weaponry, and security systems
 - Tradeoffs of hardware vs. personnel possible
 - Capital costs vs. O&M costs
- Denial strategy
 - Interpose, interdict, and neutralize threat
- Detect, assess, and communicate strategy
 - Licensee requests help local law enforcement responds and resolves threat



Potential Impacts

 Denial strategy, if required, for some or all ISFSIs could have very large capital and/or O&M cost impacts

- Distance from storage facility to site boundary varies widely
 - Ability to implement certain security solutions may vary widely



Summary

 The NRC's rulemaking process is still in an early stage

 Changes in technical direction may significantly impact costs

Costs to licensees and NRC still being assessed