




AMERICA'S NUCLEAR SOLUTION

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Spent Fuel Technical Session:
Perspectives on Interim Consolidated Storage



**Consolidated Interim Storage:
Industry Benefits**


- Permanent geological repository projected to take decades and faces significant local/state acceptance challenges
- Availability of consolidated storage facility offers near-term path for DOE to take title to and efficiently manage UNF
- Successful demonstration of transportation, licensing, and public consent processes will increase public confidence in the nuclear industry
 - Polls show the unresolved UNF management issue remains a vulnerability for the nuclear industry
 - Public concern over “stranded” UNF at decommissioned sites and perception of “paralysis” in finding a solution

**Provides a Near-Term, Economically Viable Option for Used Fuel Management
Progress while a Permanent Disposal Solution Continues to be Developed**



**CIS Consistent with Blue Ribbon
Commission Recommendations**


- The Blue Ribbon Commission’s report in 2012 recommended a consent-based CISF
- Allows the federal government (DOE) to take title to UNF and remove it from nuclear power plants (“stranded” fuel at permanently shutdown plants should be a priority)
- WCS proposed CISF is an “outside the beltway” idea that requires no federal funding to start



Near-term CIS Deployment Would Benefit the U.S. Repository Program

- U.S. UNF Management program viewed as an integrated “system” vs. individual components
- A system with CIS *and* a repository would be much more robust and would eliminate the current “single point of failure” vulnerability
 - Surge Volume/Buffer to allow continued operations despite problems at a single facility (e.g., WIPP incident)
- CIS deployment would remove barriers to repository implementation by resolving public concerns, technical issues, and licensing contentions in the near-term

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Acting NOW to Remove Barriers to the U.S. Repository Program

- Provides an early demonstration of UNF transportation infrastructure that will be essential for repository operations
 - Potential to address public concerns and remove transportation related contentions to repository operations well before the actual need date
 - Reduces the risk of further degradation of on-site infrastructure at permanently shutdown reactor sites
 - Waiting to resolve transportation issues until a repository is built increases risk of further delay in successful repository operations
- Creates a robust facility which could be expanded to develop and deploy the repackaging technology to prepare the UNF currently in dry storage for final disposal in a repository
 - Repackaging may be needed before the 20,000+ MTU (and growing) of UNF in dry storage can go into the repository
 - Waiting to develop a CISF/repackaging facility until a repository is built increases risk of further delay in successful repository operation

CIS provides **system-wide benefits and flexibilities to help advance a geologic disposal program**


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Summary of CIS Benefits

- Consolidation of multiple “stranded” ISFSIs into a CISF to save licensing, aging management, and security costs and to enable re-use of decommissioned reactor sites
- Opportunity to reduce taxpayer liabilities and payments from DOE’s partial breach of contract
- Enhancement of nuclear industry credibility by proactively addressing UNF management issue
- Creation of system-wide benefits and flexibilities to help advance a geologic disposal program


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Industry Issues & Challenges for CIS (1 of 2)

- Need legislation enabling the DOE to take title to UNF and utilize portions of the Nuclear Waste Fund to pay for interim storage services
 - Private entities willing to start the licensing process with no federal funding, but will need certainty of funding for construction and operation
 - Requisite authorities are under active consideration by the Congress
 - H.R. 3643 (introduced by Rep. Michael Conaway [R-TX-11])
 - Senate and House authorizing and appropriations committees
 - CIS capabilities need to be viewed as key element of a well-designed, comprehensive UNF management program
 - System-wide benefits and flexibilities help advance a geologic disposal program, and should be understood in that context

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Industry Issues & Key Challenges for CIS (2 of 2)

- Major DOE initiative on transportation of UNF required to facilitate storage commencing in December 2020
 - Development/procurement of transportation assets (i.e., rail cars, transportation casks & supporting equipment)
 - Establish Acceptance Priority Ranking (priority to S/D plants, “O-F-F”)
 - Assess/Upgrade site infrastructure to support UNF transportation
 - Establish and prepare transportation routes and provide funds and technical assistance to provide training to local governments on safety and emergency response (NWPA Sec. 180(c) requirements)
- Managing public acceptance of large scale transportation of UNF
 - “Stop Fukushima Freeways” campaign recently launched by groups opposing Yucca Mountain
 - Statistically, transporting UNF is one of the safest activities in the nuclear fuel cycle
 - Proactive approach needed to address public fears and concerns

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What is Needed to Help CIS Move Forward?

- Industry support for development of interim storage capability and supporting transportation infrastructure
 - Engage in development of supportive industry policy positions
 - Engage Congressional stakeholders to advance meaningful UNF management policy and enable opportunities for private storage solutions
 - Support development and deployment of necessary UNF transportation infrastructure

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Summary

- CIS is an integral part of a country's overall successful used fuel management system
- Significant near-term financial benefits available through consolidation of multiple "stranded" ISFSIs into one CISF
- Provides system-wide benefits and flexibilities to help advance a geologic disposal program
- Major challenges include:
 - Enabling legislation to provide project certainty
 - Transportation infrastructure to support operations in 2020
 - Public acceptance of large scale transportation of UNF
- Proactive support from industry stakeholders needed to help make progress

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