



Licensing and Inspection Program Overview

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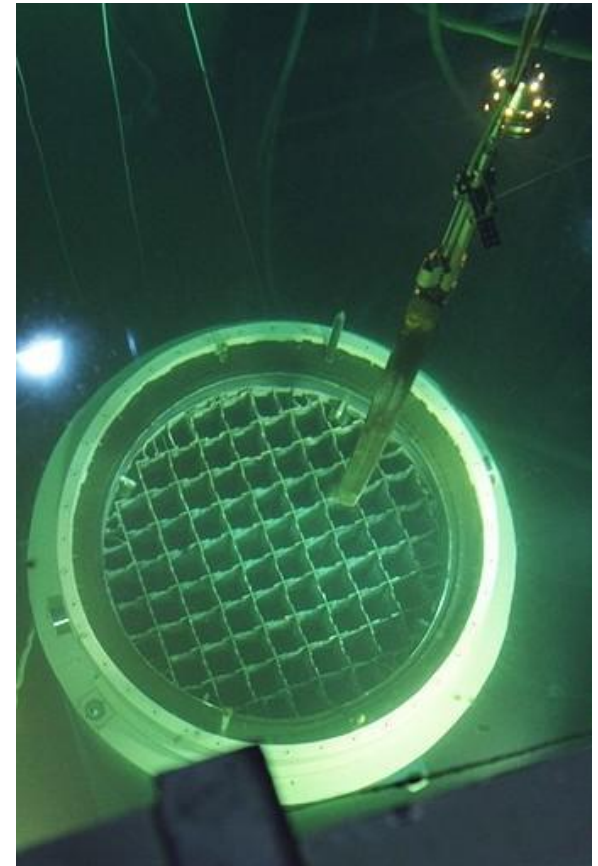
July 27, 2011

Key Storage and Transportation Regulatory Framework Activities

- **Improve the Regulatory Framework for Storage and Transportation (Safety)**
- Develop a Technical Basis for Extended Storage and Transportation
- Develop a long-term rulemaking for Waste Confidence and develop an EIS for long-term storage

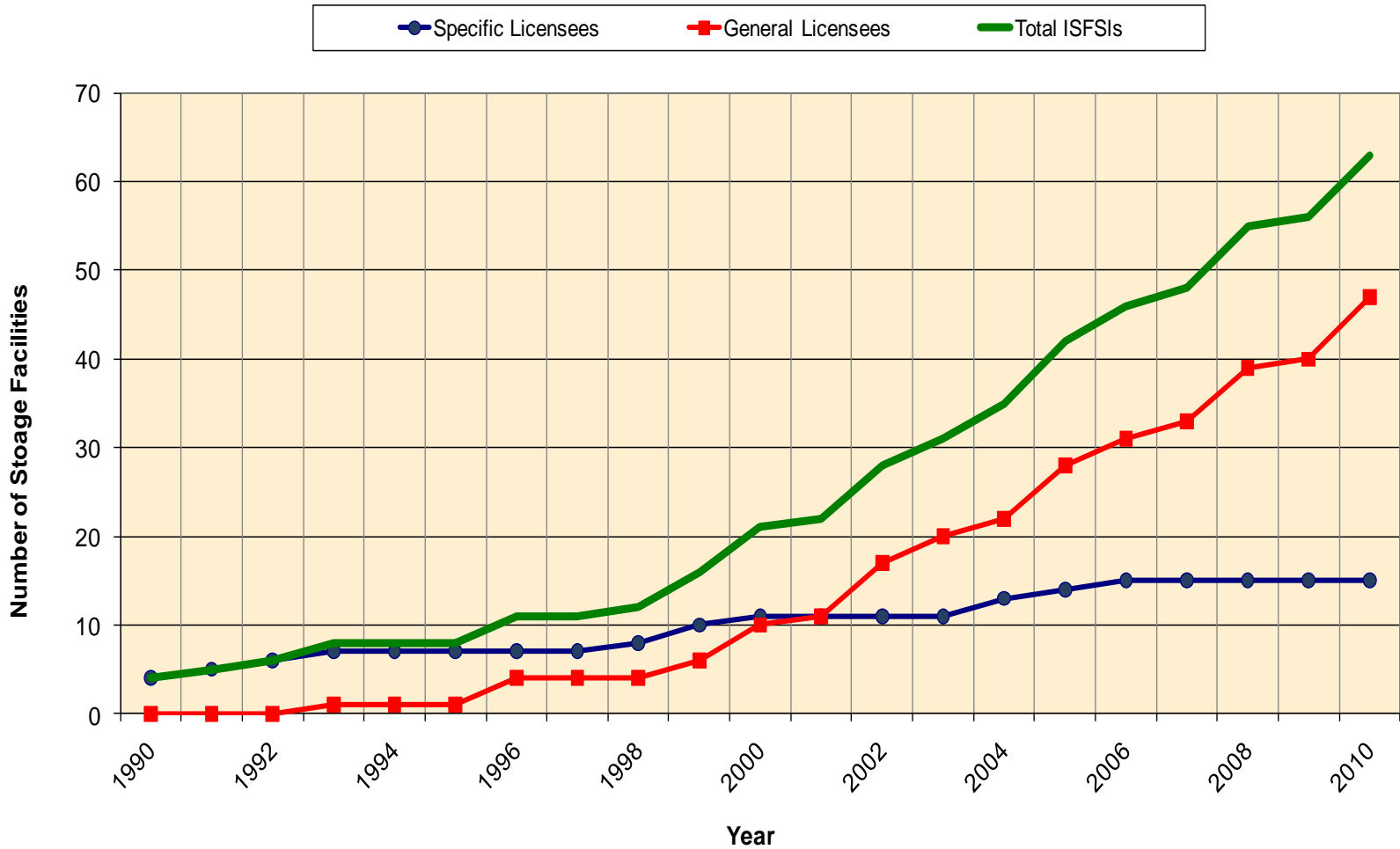
NRC Oversight of Commercial Spent Fuel*

- Spent fuel pools at 65 reactor sites in 31 States
 - 170,000 fuel assemblies
- Dry storage casks at 54 storage facilities
 - Over 50,000 fuel assemblies
 - Over 1400 loaded dry storage casks
 - Over 50 approved storage cask design variations

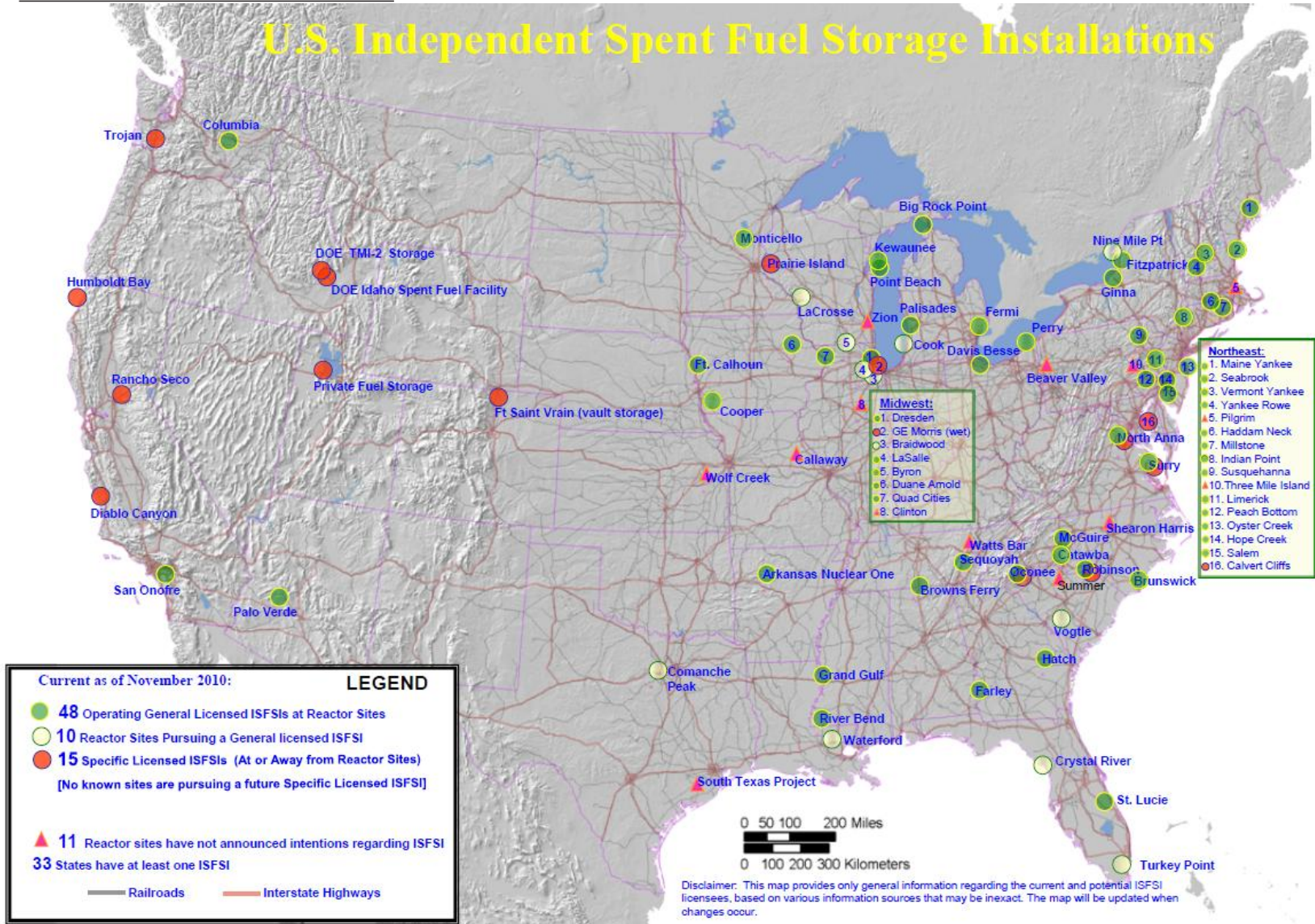


* Approximate values based on various 2010 & 2011 data sources

Growth of Dry Cask Storage



U.S. Independent Spent Fuel Storage Installations



Near-Term Program Plan

(COMSECY-10-0007 & SECY-11-0029)

- Perform comprehensive review of the licensing and inspection programs
 - Major licensing and inspection processes
 - Leverage existing activities
 - Stakeholder participation
 - Risk-informed and performance-based enhancements (partially deferred)
 - Incentives to use state-of-the-art technology (deferred)
 - Compatible international standards (deferred)

Scope of Safety Framework Review

- Regulations
- Guidance
- Licensing Review Processes
- Inspection and Enforcement Procedures

Relation to other Initiatives

- Near-Term Guidance Updates
 - Standard Review Plan for Storage Facilities
 - Standardized Technical Specifications
 - Regulatory Guide for 10 CFR 72.48 Change Authority
- Petition for Rulemaking (Part 72)
- Storage and Transportation Security Rulemakings (Part 73)
- NEI Issue Resolution Protocol Initiative
- Blue Ribbon Commission

Upcoming Stakeholder Interactions

- September 19-20: Waste Confidence and Extended Storage and Transportation
- November 2-3: SFST Regulatory Conference
- Jan/Feb 2012: Additional meeting on near-term program issues

- ***Near-Term Program Improvements***
 - <http://www.nrc.gov/waste/spent-fuel-storage/public-involvement.html>
 - COMSECY-10-0007 “Project Plan for the Regulatory Program Review to Support Extended Storage and Transportation of Spent Nuclear Fuel”
- ***Other Activities***
 - SECY-11-0029 “Plan for the Long-Term Update to the Waste Confidence Rule and Integration with the Extended Storage and Transportation Initiative”
 - SECY-11-0093 “Near-Term Report and Recommendations for Agency Actions Following The Events in Japan”
 - PRM-72-6 “C-10 Research and Education Foundation, Inc.: Upgrade Interim Dry Cask Storage Code Requirements / *ISFSI Security Rulemaking*, www.regulations.gov, Docket ID: NRC-2008-0649”
 - “Rulemaking Revising Security Requirements for Facilities Storing Spent Nuclear Fuel and High-Level Radioactive Waste, www.regulations.gov, Docket ID: NRC-2009-0558”
 - Spent Nuclear Fuel Transportation Security Rulemaking - “Requirements for Physical Protection of Irradiated Reactor Fuel in Transit,” www.regulations.gov, Docket ID: NRC-2009-0163.
 - *NEI Issue Resolution Protocol: ADAMS: ML02640080*
 - *EPRI Extended Storage Collaboration Program: www.epri.com*
 - *Blue Ribbon Commission: www.brc.gov*

References (cont)

- *Regulations and Guidance*
 - *Title 10 Code of Federal Regulations (CFR) Part 71 “ Packaging and Transportation of Radioactive Material”*
 - *10 CFR Part 72 “ Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste”*
 - *Regulatory Guide 3.72 “Guidance for Implementation of 10 CFR 72.48, Changes, Tests, and Experiments”*
 - *NUREG-1536 – “Standard Review Plan for Dry Cask Storage Systems”*
 - *NUREG-1567 – “Standard Review Plan for Spent Fuel Dry Storage Facilities”*
 - *NUREG-1617 – “Standard Review Plan for Transportation Packages for Spent Nuclear Fuel”*
 - *NUREG-1927 – “Standard Review Plan for Renewal of Spent Fuel Storage System Licenses and Certificates of Compliance”*
 - *NUREG-1745, “Standard Format and Content for Technical Specifications for 10 CFR Part 72 Cask Certificates of Compliance”*
 - *“Final Safety Culture Policy Statement” (SCPS) in the Federal Register (76 FR 34773)*

Status of Licensing and Inspection Program Review

Process Overview

- *Consider Past Licensing and Inspection Experience*
- Stakeholder comments from recent conference and public meetings
- Internal NRC Team (including Regions and other Offices)
- Targeted Stakeholder Interactions
- Develop recommendations

Key Milestones (Licensing Review)

- Spring 2012 – Complete internal review and initial stakeholder interactions
- Summer 2012 – Issue Federal Register Notice for formal comments on regulatory issues
- 2012 – 2013 – Develop recommendations for improving the licensing framework
- 2012 – 2015 – Guidance updates
- 2013 – 2016 – Rulemaking (if needed)

Key Milestones (Inspection Review)

- FY 2011 – Complete internal review and develop recommendations for improving the inspection program
- Additional outreach
- FY 2012 – Begin implementing approved recommendations

Key Issues (Today's Discussion)

- **Compatibility and integration of 10 CFR Parts 71 and 72 requirements for dual purpose casks**
- **Streamlining process for 10 CFR Part 72 cask certification**
- **Inspection Program**
- **Safety Culture**

Other Potential Issues (Future)

- Administration of CoCs and CoC amendments
- Interface between 10 CFR Parts 50 and 72
- Applicability/compatibility of safety requirements for site-specific licensees, general licensees and CoC holders
- Regulating ISFSIs at decommissioned reactor sites
- Updates to key guidance documents

Overview of Regulatory Framework

Options for Spent Fuel Storage

- Site Specific License
 - 10 CFR Part 72 Subparts A – J
 - Available to reactor licensees and other entities
 - Opportunity for Hearing
 - License to store and possess spent fuel at single site in U.S.
 - 20-40 year License Terms



Options for Spent Fuel Storage – Cont'd

- General License
 - 10 CFR Part 72 Subparts K-L*
 - Granted to Part 50 and 52 reactor licensees
 - Requires use of certified cask design
 - Certificate application submitted to NRC by a cask vendor
 - Approved design added to Part 72 regulations with the NRC rulemaking process
 - Licensee required to perform site evaluation to verify compatibility of site with design parameters
 - 20 - 40 year certificate terms



Spent Fuel Transportation

- General License
 - 10 CFR Part 71
 - Granted to NRC licensees
 - Requires use of package design certified by NRC
 - Certificate application submitted by vendor to NRC for approval
 - User required to verify that package satisfies design and content specifications in Certificate
 - User required to have NRC approved Quality Assurance Program



Technical Review Guidelines

- Standard Review Plan for Dry Cask Storage Systems (NUREG-1536)
- Standard Review Plan for Spent Fuel Dry Storage Facilities (NUREG-1567)
- Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance (NUREG-1927)
- NUREG-1617 – “Standard Review Plan for Transportation Packages for Spent Nuclear Fuel”
- Interim Staff Guidance Documents

Areas of Evaluation

- Principal Design Criteria
- Structural
- Thermal
- Shielding
- Criticality
- Confinement
- Operating Procedures
- Acceptance Tests and Maintenance Program
- Radiation Protection
- Accident Analyses
- Conditions for Use
- Quality Assurance
- Decommissioning

Feedback

