



OFFICE OF THE
GENERAL COUNSEL

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 29, 2000

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In the Matter of
Private Fuel Storage L.L.C.
(Independent Spent Fuel Storage Installation)
Docket No. 72-22-ISFSI

Dear Ms. Chancellor:

Enclosed please find a document in the possession of the NRC Staff ("Staff") which may be responsive to the "State of Utah's Eighth Set of Discovery Requests Directed to the NRC Staff," concerning Contention Utah Z (No Action Alternative). This document is a set of slides for the "Briefing of the Midwestern High-Level Radioactive Waste Committee," and is dated May 10, 2000.

In the event that any further documents responsive to the State's discovery requests are identified, they will be forwarded promptly to the State. The Staff will provide the State with a list of any such documents falling into two groups, namely: (a) documents that appear to be available in the public docket, and (b) documents that are being withheld as privileged or otherwise exempt from disclosure under 10 C.F.R. § 2.790.

Sincerely,

Robert M. Weisman

Robert M. Weisman
Counsel for NRC Staff

Enclosure: As stated

cc w/Encl.: Service List

Spent Fuel Project Office Current Licensing Activities



Briefing of the Midwestern High-Level
Radioactive Waste Committee
May 10, 2000

Overview

- SFPO Responsibilities
- Current/Planned ISFSIs
- Storage Certificate Review Issues/Status
- Transportation Activities/Studies
- Physical Security Requirements for Spent Fuel Shipments
- Miscellaneous Subjects

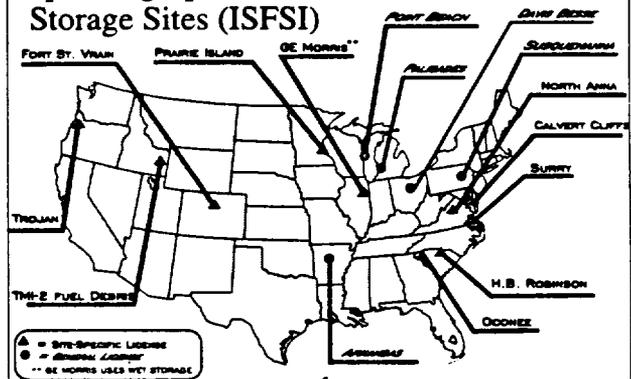
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Spent Fuel Project Office Responsibilities

- Independent Spent Fuel Storage Installation (ISFSI) Licensing, Inspection Program Development, and Project Management
- Storage and/or Transport Cask Certification for Spent Fuel; Transport Package Certification for other Radioactive Materials Packages
- Regulatory Program for Safe Transportation of Licensed Radioactive Materials; DOT/IAEA Interface
- Quality Assurance Program Reviews and Inspections

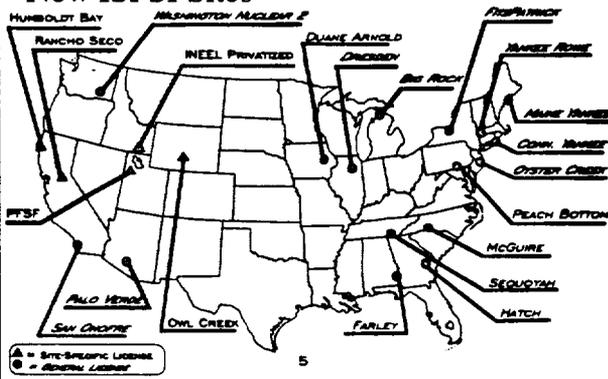
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Operating Spent Fuel Storage Sites (ISFSI)



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Potential Near-Term, New ISFSI Sites



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SFPO CASE WORK STATUS

October 1998 - April 2000

Spent Fuel Storage Casks

	Dual Purpose Casks	Single purpose Casks
Completed	4	1
In Rulemaking	2	0
Under Review	1	1

Transportation Certificate Reviews (Spent Fuel & Non-Spent Fuel)

Completed	166
Under Review	45

Independent Spent Fuel Storage Installations¹

Completed	3
Under Review	3

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Storage Certificate Review Issues/Status -Initiatives

Certificate Review and Approval Process

- Minor changes not requiring NRC approval
 - Improved certificates
 - Improved standard technical specifications
 - Guidance on new 72.48 change control process
- Alternative certificate amendment process
- Areas for improved effectiveness and efficiencies (e.g., review times, staff guidance)

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Transportation - Specific Activities

Overview of Discussions

- SFPO transportation roles and activities
- Revisions to 10 CFR Part 71
- Transportation risk studies
 - Reexamination of spent fuel risk estimates
 - Package performance study

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SFPO Transportation Roles and Activities

- Certify transportation packaging designs
- Quality assurance program approvals/inspections
- Transport physical protection
- Generic issues resolution (high burnup, burnup credit)
- Interface with IAEA and DOT

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DOT's Role

- Hazardous materials shipment safety
- Hazard communication
- Routing
- International coordination
- Regulation of carriers

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10 CFR Part 71 Rulemaking

- Rulemaking to incorporate latest, periodic revision of IAEA transportation standards (ST-1)
 - Identified topics that may result in Part 71 changes
 - Changes involve details, but not changes to the overall approach of the regulation
- Also includes other considerations:
 - Changes for certain spent fuel packages (similar to process in §72.48 and §50.59)
 - Resolve petition on double containment for plutonium
 - Resolve comments on 1997 fissile exemptions rule

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10 CFR Part 71 Rulemaking (continued)

Process

- Staff plans to use enhanced public participatory approach -Public meetings and outreach on issues
- Coordinating Part 71 changes with DOT's changes to 49 CFR Parts 171-178
- Schedule: develop proposed rule by 3/01

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Transportation Safety Studies

Ongoing Effort to Ensure Shipment Safety

- 1977 - FES on Transportation by Air and Other Modes (NUREG-0170)
- 1987 - Shipping Container Response to Severe Accidents (NUREG/CR-4829)
- 2000 - Reexamination of Spent Fuel Shipment Risk Estimates (NUREG/CR-6672)
- ~2003 - Package Performance Study (Severe Accidents)

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NUREG-0170 (1977)

Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes

- Assessed public and transport worker impacts
- All licensed shipments, all modes, incident-free transport and accidents
- Used as basis for NRC and DOT regulations
- Spent Fuel (1 of 25 types of materials studied)
 - Reprocessing economy (90 day cooled fuel)
 - Simple accident release (using engineering judgement)
 - Estimated a 1985 total of ~2000 shipments/year

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Modal Study (1987)

NUREG/CR-4829 (LLNL): Shipping Container Response To Severe Highway and Railway Accident Conditions

- Spent fuel package accident response by analysis
- Impact and thermal forces
- Finite element analysis of cask wall stresses
- Goal: relate Part 71 tests to forces in accidents
- Also considered 'real life' transport accidents
- Risks estimated to be ~1/3 those in NUREG-0170

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Reexamination of Spent Nuclear Fuel Risk Estimates (March 2000)

NUREG/CR-6672, Sandia National Laboratories

- Assess risks for shipment campaign to storage facilities and repository
- Model current cask designs (including closure system), modern fuel properties
- RADTRAN V incident-free & accident dose risk
- Result: risk < Modal Study < NUREG-0170
- Plain-English compliment to technical report is in development

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Package Performance Study

- Spent fuel only, truck and rail packages
- Build upon 1987 modal study and 2000 reexamination study
- Assess severe accident cask performance and fuel responses
- Consider the need for and benefits of physical testing (partial-scale or full-scale)
- Using an enhanced public participatory approach

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STATUS

- Contract with Sandia National Laboratories
- Scoping study
 - Collect public views
 - Literature search/review
- Issues & Resolution Options Report
 - Available summer 2000

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Public Involvement

- Website (<http://ttd.sandia.gov/nrc/modal.htm>)
- Workshops
 - ▶ Nov. 17, 1999: Roundtable in Bethesda, Maryland
 - ▶ Dec. 8, 1999: Henderson, Nevada roundtable and evening seminar
 - ▶ Dec. 9, 1999: Pahrump, Nevada seminar
- Additional workshops this summer, to discuss both reexamination report and issues report

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NRC Physical Security Requirements for Spent Fuel Shipments

- Objectives and Approach
- General Requirements
- Route Approval Process

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NRC Physical Security Requirements for Spent Fuel Shipments

- Objectives
 - ▶ Minimize likelihood of sabotage
 - ▶ Facilitate location and recovery
- Approach
 - ▶ Provide detection, assessment of attempt to access or control shipments
 - ▶ Provide notification to response forces
 - ▶ Impede sabotage attempt

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General Requirements: 10 CFR 73.37

- Communications Center: redundant capability
- Escorts: Threat procedures, Instructions, Training
- Local Law Enforcement Agencies (LEA)
- Advance Notification
- Security Arrangement Approval
- Avoidance of Intermediate Stops
- Designation of Urban Areas
- Vehicle Immobilization

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Security Arrangement Process

- Applicant Role:
 - ▶ Comply with DOT highway routing rules
 - ▶ Coordinate route with State and local governments
 - ▶ Comply with physical protection requirements

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Security Arrangement Process (continued)

- NRC Role:
 - ▶ Survey Route (as required)
 - ▶ Confirm LEA Contacts
 - ▶ Issue Approval valid for 2-years

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MISCELLANEOUS SUBJECTS

- **Private Fuel Storage Facility Review Status**
- **Potential Rulemakings**
- **TRANSCOM**
- **Electronic Distribution of Shipment Information**
- **NRC Comments on DOE Draft Environmental Impact Statement**

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Private Fuel Storage Facility Review Status

- **Application submitted in June 1997**
- **Draft environmental impact statement (EIS) scheduled for June 2000 issuance (NRC, BIA, BLM, STB)**
- **Public meetings to be held in July 2000**
- **Final EIS scheduled for February 2001 issuance**
- **Atomic Safety and Licensing Board (ASLB) safety hearing scheduled for June 2000**
- **Additional ASLB hearings on environmental contentions and safety contentions scheduled for Summer 2001**

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Potential Rulemakings

- **Proposed Revision of Regulations Governing Safeguards of Shipments of Spent Fuel**
 - ▶ June 22 Nevada letter requesting comprehensive assessment of consequences of terrorist attacks and amendment to regulation
 - ▶ Comment period closed on November 29, 1999
 - ▶ Staff is evaluating comments

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Potential Rulemakings (continued)

- **Advance Notification of Public Rulemaking (ANPR) Regarding Advance Notification of Native American Tribes of Spent Fuel or High Level Waste Shipments**
 - ▶ Current regulations require NRC to provide advance notification of shipments to states, but not to Native American tribes
 - ▶ ANPR published in Federal Register on 12/21/99
 - ▶ Notice solicited input on several questions to aid in staff evaluation of issue
 - ▶ Comment period extended to 7/5/00

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TRANSCOM

- **TRANSCOM is a DOE operated system for tracking of spent fuel and high-level waste shipments**
- **The NRC has no regulations that require the use of TRANSCOM, and does not object to voluntary use of system**
- **Licensees who use TRANSCOM still must comply with 10 CFR 73 including requirements for protecting Safeguards Information**

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Electronic Distribution of Shipment Information

- **Specific shipment information is Safeguards Information (10 CFR 73.21)**
- **Current regulations (10 CFR 73.37(f)) require that notification of shipment information must be protected**
- **Safeguards Information shall be transmitted only by protected telecommunication circuits approved by the NRC (10 CFR 73.21(g)(3))**

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**DOE ENVIRONMENTAL IMPACT
STATEMENT FOR YUCCA
MOUNTAIN**

- **DOE published on August 13, 1999**
- **NRC reviewed and provided comments in letter to DOE**
- **NRC provided 8 comments on topical areas that needed update/revision to make DEIS complete**
- **Analysis of transportation in Nevada not complete**