50-321/366

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

September 11, 1997

MEMORANDUM TO: Charles Haughney, Acting Director
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

FROM: Kimberly A. Gruss, Materials Engineer
Marissa G. Bailey, Project Manager
Spent Fuel Licensing Section
Spent Fuel Project Office, NMSS

SUBJECT: SUMMARY OF SEPTEMBER 4, 1997, MEETING BETWEEN NUCLEAR REGULATORY COMMISSION STAFF AND SOUTHERN NUCLEAR

On September 4, 1997, a meeting was held between representatives of the Nuclear Regulatory Commission and Southern Nuclear Operating Company (Southern Nuclear). The purpose of the meeting was to discuss Southern Nuclear's plans to establish an independent spent fuel storage installation at the Hatch Nuclear Power Plant. Attachment 1 is a list of meeting attendees. Attachment 2 contains the overhead slides presented by Southern Nuclear. The meeting was noticed on August 21, 1997

At Hatch, there are two operating reactors and one common refueling floor and spent fuel pool. At the present time, 75 percent of the pool racks are loaded with spent fuel. The remaining 25 percent are expected to be filled by the year 2003. Therefore, Southern Nuclear has decided to pursue using dry storage as a means for expanding its spent fuel storage capacity. Southern Nuclear stated that it needs to begin cask loading by the end of 1999 or early 2000.

Southern Nuclear has organized a dry cask storage project team comprised of individuals with experience in executive oversight, project management, quality assurance, operations, and licensing activities. Several requests for proposals were issued to cask vendors on August 22, 1997. The proposals are expected to be received by October 3, 1997. In the development of a license application, Southern Nuclear will be considering the nuclear industry's experience with dry storage and intends to use third party evaluations for quality assurance oversight and technical work. A dual purpose cask is its preferred design. Southern Nuclear personnel are currently deciding which type of license, general versus site-specific, they will submit.

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NRC staff discussed both the advantages and disadvantages of site-specific and general licenses and the NRC's experience with licensing dry storage casks. The staff also recommended that Southern Nuclear take an active role in the oversight of cask vendor activities and develop good relationships with the vendor, state and local authorities, and members of the public. Southern Nuclear representatives were cautioned about overly optimistic vendor delivery schedules. Attendance at the cask vendors' user group meetings was suggested as a means to learn more about the vendors' products and services. The staff also suggested that Southern Nuclear look at the docket files as an indicator of vendor performance. NRC staff discussed several additional actions that would help expedite the review of the application, including Southern Nuclear's review of NRC inspection procedures and early NRC notification of any unusual cask design features.

Dockets 50-321, 50-366

Attachments: 1. Attendee List
2. Non-Proprietary Meeting Slides

cc: Mr. David Bland, Project Manager
Southern Nuclear

Service List

Distribution: w/ attachments

Dockets	NRC File Center	PUBLIC	NMSS R/F	SFPO R/F
SFLS R/F	SGagner, OPA	SShankman	FSturz	PEng
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OFC	SFPO	E	SFPO	E	SFPO	E	SFPO	E		
NAME	KAGruss:dd		MGBailey		VLTharpe		EJLeeds			
DATE	09/10/97		09/ /97		09/10/97		09/10/97			

"C" = copy without attachment/enclosure "E" = copy with attachment/enclosure "N" = no copy

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9/11/97 :dd

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ATTENDANCE LIST

Meeting Between Nuclear Regulatory Commission Staff
and Southern Nuclear Operating Company Representatives

September 4, 1997

Name	Affiliation
Marissa Bailey	NRC/NMSS/SFPO
Eric Leeds	NRC/NMSS/SFPO
Kim Gruss	NRC/NMSS/SFPO
Charles Haughney	NRC/NMSS/SFPO
Fritz Sturtz	NRC/NMSS/SFPO
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Sue Gagner	NRC/OPA
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Glenn Goode	Southern Nuclear
John Giddens	Southern Nuclear
Dennis Read	Southern Nuclear
Louis Long	Southern Nuclear
Terry Sides	Southern Nuclear
David Bland	Southern Nuclear
John Lamberski	Troutman Sanders LLP
Rita Bowser	Westinghouse
Don McGuigan	NUS Information Services
Alice Carson	Bechtel Power
Robert Sweeney	IBEX

ATTACHMENT 1

Presentation to

Office of Nuclear Material Safety and Safeguards

Spent Fuel Project Office

September 4, 1997

ATTACHMENT 2

SOUTHERN COMPANY

Energy to Serve Your World

Hatch Spent Fuel Storage

1.	Introduction	David Bland
2.	Meeting Objectives	Louis Long
3.	Status of Hatch Nuclear Plant	David Bland
4.	Spent Fuel Storage Licensing Options and Plans	Terry Sides
5.	Discussion	All

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Hatch Spent Fuel Storage

Meeting Objectives

- Inform the NRC that Southern Nuclear - Plant Hatch is approaching the need for additional spent fuel storage
- Provide assessment of Site Specific vs. General License approach to spent fuel storage and Plant Hatch anticipated licensing strategy
- Feedback/Dialog of NRC experience and knowledge

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Hatch Spent Fuel Storage

Status of Edwin I. Hatch Nuclear Plant

- Unit 1 Operating License in 1974
- Unit 2 Operating License in 1978
- Common Refueling Floor & Spent Fuel Pool
- Loss of 2 Unit Full Core Reserve - Fall 1998
- Loss of Single Unit Full Core Reserve - Fall 2000
- Spent Fuel Pool Full in 2003

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Hatch Spent Fuel Storage

Status of Edwin I. Hatch Nuclear Plant (continued)

Spent Fuel Pool

- 6026 licensed slots - 5946 installed
- 4475 filled as of 9/4/97
- 1311 existing slots are available
- Rack addition would only provide limited additional storage

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Status of Edwin I. Hatch Nuclear Plant (continued)

Activities to Date

- Formed Dry Cask Storage Project
  - Executive Oversight
  - Project Management
  - Quality Assurance
  - Operations Expertise
  - Technical Expertise
  - Licensing Expertise
- Issued RFP on 8/22/97 - Proposals due on 10/3/97

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Status of Edwin I. Hatch Nuclear Plant (continued)

Major Considerations

- Industry Experience - Lessons Learned
- Strong Quality Assurance Oversight
- Third-party input for evaluations as necessary
- Desire use of dual purpose cask
- Single core offload capability

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Hatch Spent Fuel Storage

Licensing Options Investigated

On-site Dry Cask Storage - Subject to 10 CFR 72 Regulation Regarding Independent Spent Fuel Storage Installations (ISFSI)

- Two Options are available for on-site storage
  - Site Specific License - 10 CFR 72 {Originally, the [illegible]}
  - General License - 10 CFR 72 Subpart K {Established for Part 50 licensees}

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Site Specific License --

- NRC Application Process (Similar to reactor license application except it is a one-step licensing process)
- Specific Elements required
  - General, Financial, and Technical Qualifications of Applicant
  - SAR
  - Environmental Report
  - Proposed Technical Specifications
  - Quality Assurance Program
  - Emergency Plan
  - Security Plan
  - Decommissioning Plan

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Site Specific License -- (continued)

- Term for a 10 CFR 72 License is 20 years and renewable
- ISFSI licensed as Site-specific could operate following reactor decommissioning
- Limited to use of specific cask
- Potentials for Delay
  - Preparation of application
  - NRC review

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General License --

- NRC Revised 10 CFR 72 in 1990 to add Subpart K which provides the option to use NRC approved spent fuel storage casks at reactor sites

  Regulations eliminate the need for prior NRC review and approval of the cask design contingent on outcome of 10 CFR 72.48 safety evaluations

- Public comments have been dispositioned prior to issuance of Certificate of Conformance

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General License -- (continued)

- Must use casks that have been approved for use by NRC and listed as holder of active Certificate of Conformance (COC) 10 CFR 72.214
- Licensee must demonstrate that the casks will be used in conformance with the COC and that cask storage pads and areas have been adequately designed 10 CFR 72.212(b)(2)
- Licensee must demonstrate that reactor site parameters, (e.g., earthquakes, tornado missiles) are enveloped by the cask design bases considered in the SAR. 10 CFR 72.212(b)(3)

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General License -- (continued)

- Licensee must demonstrate that the effectiveness of the following Plans and Programs are not reduced:
  - Security Plan
  - Emergency Plan
  - QA Program
  - Radiation and Protection Program
  - Training Program

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General License -- (continued)

- If a licensee makes changes to a design with an approved Certificate of Compliance -- it is made pursuant to 10 CFR 72.48

- Licensee must perform a 10 CFR 50.59 evaluation to address impact on facility operations (i.e., heavy loads, transportation, cask loading activities, etc.)

10 CFR 72.48 evaluation for holders of General License under Subpart K is analogous to 10 CFR 50.59 evaluation for Part 50 licensee.

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Comparison of License Approaches

Site Specific License	General License
Surry (1985)	Palisades (1993)
Robinson (1985)	Point Beach (1995)
Oconee (1990)	Davis Besse (1996)
Calvert Cliffs (1990)	ANO (1996)
Fort St. Vrain (1991)	
Prairie Island (1993)	

General License approach is the anticipated licensing strategy

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Hatch Spent Fuel Storage

Anticipated NRC Review & Oversight

- Definitive need for ongoing NRC involvement
- Regulatory requirements differ
  (Site Specific vs. General)
- Current Significant NRC Issues --
  - ⇒ NRC Bulletin 96-02 regarding Heavy Loads
  - ⇒ NRC Bulletin 96-04 regarding Hydrogen gas ignition
  - ⇒ CAL on Cask Configuration & Design Control
  - ⇒ IN 97-39 on Inadequate 10 CFR 72.48 evaluations
  - ⇒ IN 97-51 on Problems w/Loading and Unloading Casks

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Discussion

- Site Specific vs. General License Approach
- NRC Experience to Date
- Cask Vendors
- Industry Experience
- Other

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