

CP&L

Carolina Power & Light Company
PO Box 165
New Hill NC 27562

AUG 8 1996

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Joe
Darell
FILE

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[Handwritten signature]

William R. Robinson
Vice President
Harris Nuclear Plant
SERIAL: HNP-96-131

**SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
SPENT FUEL SURVEY COMMITMENTS**

Dear Sir or Madam:

By letter dated July 1, 1996 and received July 8, 1996, the NRC requested that CP&L acknowledge and provide projected completion dates for commitments made for spent fuel related activities at the Harris Nuclear Plant (HNP). Specifically, CP&L was requested to confirm that: (1) the current spent fuel pool heatload analysis will be updated for current and future practices/assumptions; (2) the HNP FSAR will be revised to address the full-core off-loads, including the clarification or deletion of terminology such as "normal" and "abnormal;" and (3) the HNP FSAR will be revised to reflect the current as-installed spent fuel pool configuration.

Since these committed activities are interrelated, they will be completed concurrently prior to the commencement of fuel off-load for the next refueling outage, currently scheduled to begin in March 1997.

Questions regarding this matter may be referred to Mr. T. D. Walt at (919) 362-2711.

Sincerely,

William R. Robinson

LSR/lsr

c: Mr. J. B. Brady-NRC Senior Resident Inspector
Mr. S. D. Ebnetter-NRC Regional Administrator
Mr. N. B. Le-NRC Project Manager

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Completing HNP Spent Fuel Pools C & D

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Completing HNP Spent Fuel Pools C & D

Background

Present Status

Storage Options

Challenges

Proposed Actions

Completing HNP Spent Fuel Pools C & D

Background

National High Level Waste Program

DOE Program:

Stalled

Repository 2015?
Interim Storage?

Legislation Efforts:

Pending

States/Utilities Suit:

Decision Pending

Completing HNP Spent Fuel Pools C & D

Present Status

CP&L Status (4/15/96):

<u>Reactor</u>	<u>Prudent Operating Reserve through</u>	<u>Reactor Off-Load Capability through</u>
BNP - 1	1995	1997
BNP - 2	1996	1998
RNP - 2	1995	1997
Harris	2011 ⁽¹⁾	2012 ⁽¹⁾

CP&L Plan: Ship to Harris

<u>Pool</u>	<u>Need-By Date</u>
C	1st Qtr 2000
D	4th Qtr 2005

(1) Assumes replacement of unused BWR racks with PWR racks.

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Completing HNP Spent Fuel Pools C & D

Options

Basic Options

Dry Storage: \$20,000/PWR Assembly⁽¹⁾ (Duke Power - Oconee)

Shipping to Harris: \$12,000/PWR Assembly (Present Costs)
\$18,000/PWR Assembly (With Pool C)⁽²⁾

(1) Trending Upward

(2) Based on high heat load (44 million BTU/hr) cooling capability

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Completing HNP Spent Fuel Pools C & D

Harris Pool C Cooling Options

- a) Complete As-Designed Cooling & Support Systems (44 million BTU/hr)
- b) Down-Size Cooling System (5 million BTU/hr)
- c) Parallel Cooling with A & B Pools
- d) Revise Licensing Basis Regarding System⁽³⁾ Classification to Non-Safety

(3) Variation of three above options.

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Completing HNP Spent Fuel Pools C & D

Abandoned Systems - Pools C & D

Spent Fuel Pool

- Cooling
- Cleanup
- Skimmer

Supporting Systems Required

Component Cooling Water

Demineralized Water

Plant Nitrogen

Filter Backwash

AC & DC Power Distribution

Non-Essential Services Chilled Water

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Completing HNP Spent Fuel Pools C & D

Challenges

Paperwork Shredded: Embedded Piping

Sources For: Component Cooling Water
Emergency Diesel Power

NRC Issues: FSAR
Pool Cooling
Heavy Loads

Completing HNP Spent Fuel Pools C & D

Challenges

Financial Market Issues:

Spent Fuel Storage Capacity

SEC Required Disclosures

10K Annual Filing

10Q Quarterly Update

8K Immediate Filing

Completing HNP Spent Fuel Pools C & D

Challenges

Cask Issues: - IF-300 Casks

-Amend For Higher Burnup Fuel

BWR Brunswick Fuel (>35 GWD/MTU)

PWR Robinson Fuel (>45 GWD/MTU)

-Feasibility Study Needed

-Renew License (Expires 9/30/2000)

- Next Generation Casks?

Completing HNP Spent Fuel Pools C & D

Proposed Actions

1. Establish NGG Team

Chief Engineers Section

Program Manager

Responsible Engineer - Liaisons: HNP and NFM&SA

Outsource Engineering - All Sites Define Project Scope

2. Determine Funding for Study

Completing HNP Spent Fuel Pools C & D

Proposed Actions

3. Conduct Feasibility Study

Evaluate

Cooling for Pools C & D

Amending Cask License (High Burnup Fuel)

Determine

Cost

Schedules

4. Complete Study by June 1997

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