

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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USNRC

*83 SEP -6 P1:25

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)

CAROLINA POWER & LIGHT COMPANY)
AND NORTH CAROLINA EASTERN)
MUNICIPAL POWER AGENCY)

Docket Nos. 50-400 OL
50-401 OL

(Shearon Harris Nuclear Power Plant,)
Units 1 & 2))

AFFIDAVIT OF LEONARD I. LOFLIN
IN SUPPORT OF SUMMARY DISPOSITION OF
EDDLEMAN CONTENTION 75 (BIOFOULING)

STATE OF NORTH CAROLINA)
COUNTY OF WAKE)

Leonard I. Loflin, being duly sworn according to law deposes and says as follows:

1. I am Manager, Engineering - Harris Plant of Carolina Power & Light Company, and give this affidavit in support of Applicants' Motion for Summary Disposition of Eddleman Contention 75. I have personal knowledge of the matters set forth herein and believe them to be true and correct to the best of my information, knowledge and belief. A summary of my professional qualifications and experience is attached as Exhibit "A" hereto.

2. Eddleman Contention 75 in this proceeding asserts that one or more species of clam, oyster or other marine growth (e.g. barnacle) will prove resistant to biocides added to cooling tower water and thus be able to grow and live in the SHNPP condensers creating debris which would foul and block the condensers preventing the plant's access to its ultimate heat sink, with serious safety consequences. The purpose of this affidavit is to summarize the effects of a complete fouling and blocking of the SHNPP condensers

on the plant's access to its ultimate heat sink, in support of Applicants' summary disposition motion.

BLOCKING/FOULING OF CONDENSERS AT SHNPP

3. If for any reason the SHNPP condensers should become completely blocked with the plant in any mode of power operation (up to 102%) the plant would readily be brought to a cold shutdown condition by use of the Service Water System.

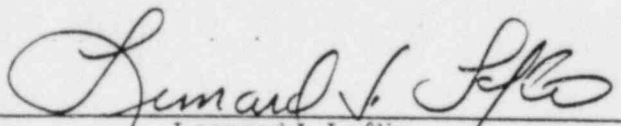
4. The Service Water System consists of both the normal and emergency service water systems. The emergency service water system is designed to ultimately remove the core decay heat as well as the heat stored in the primary coolant water. The emergency service water system has two completely independent and redundant trains and is supplied by either the Main or Auxiliary Reservoir. A complete description of the service water system can be found in the SHNPP FSAR Section 9.2.

5. The SHNPP design basis assumes no credit for condenser availability (the main condensers are a non-safety/non-seismic system). The Service Water System, with no reliance upon the condensers, is designed to bring the plant to a cold shutdown condition.

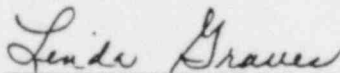
CONCLUSION

6. The complete loss of the SHNPP condensers due to the accumulation of debris, or for any reason, will in no way prevent the plant's accessibility to its ultimate heat sink and no safety consequences will result.

This the 31st day of August.


Leonard I. Loflin

Sworn to and subscribed, before me, this
the 31st day of August, 1983.


Notary Public

My commission expires: 10/2/83

LINDA GRAVES
NOTARY PUBLIC
WAKE COUNTY, N. C.

My Commission Expires October 2, 1983

LEONARD IRA LOFLIN

Manager - Harris Plant Engineering Section

BIRTH DATE: October 16, 1941

I. EDUCATION

- A. B.S. Degree in Electrical Engineering from Clemson University - February 1964
- B. Professional Degree in Nuclear Engineering from North Carolina State University - June 1969
- C. Reactor Operator Training Programs
 - 1. Westinghouse Corporation, Saxton Plant:
AEC Reactor Operator License - February 1970
 - 2. Virginia Electric & Power Company, Surry Plant:
AEC Senior Reactor Operator License - April 1972

II. EXPERIENCE

- A. 1960 to 1963
 - 1. Duke Power Company
 - a. Three summer work periods at Buck Steam Plant, Spencer, N.C.
 - b. One summer work period at Greenville, S.C., Distribution Engineering Office
- B. February 1964 to June 1973
 - 1. Virginia Electric & Power Company
 - a. Assistant Engineer, Yorktown Power Plant (two 165 MWe fossil fired units): February 1964 to November 1964

Participated in maintenance and modifications of plant control systems. Responsible for plant performance testing and monitoring.
 - b. Assistant Engineer: November 1964 to May 1965

Associate Engineer: May 1965 to January 1967

Engineer: January 1967 to May 1967

Mt. Storm Power Plant (two 565 MWe fossil fired units)

Assignment to Mt. Storm was made prior to initial phases of first unit startup. As the only nonsupervisory utility engineer assigned to the plant during startup of both units, was integrally involved in all engineering, operations, and maintenance facets of startup on both units.

- c. Engineering Supervisor, Mt. Storm Power Plant: May 1967 to September 1968

Supervisory and technical responsibility for all station engineers, chemists, instrument technicians, laboratory technicians, coal handling foremen, and coal handling union personnel. Handled contract interface and execution on station level between fuel vendors and VEPCO.

- d. Staff Engineer, Richmond, VA

September 1968 to June 1969

Assigned to N. C. State University

- e. Assistant Operating Supervisor, Surry Nuclear Power Plant (two 2441 MWt Pressurized Water Reactors):

June 1969 to September 1972

Responsible involvement: Core loading; initial criticality; escalation to power; preoperational startup of all plant systems, both secondary and primary; scheduling and organization of operations department; interface relations with Stone & Webster (A/E), Westinghouse, and Atomic Energy Commission; organization and coordination of nuclear training.

- f. Operating Supervisor, Surry Nuclear Power Plant (two 2441 MWt Pressurized Water Reactors): September 1972 to June 1973

Responsible for all plant operational functions. Conducted escalation to rated power of Unit 1. Directly supervised core loading, initial criticality, and escalation to power of Unit 2. Personnel responsibility for forty-five (45) operators and eleven (11) first-line supervisors.

C. June 1973 to Present

1. Carolina Power & Light Company

- a. Employed as Principal Engineer in the Power Plant Engineering Department. Assigned to Nuclear Plant Engineering Section II as Principal Engineer on the South River Project. Supervised first year of project activity including nuclear steam supply (NSS) negotiation;

creating functioning relationships between CP&L, NSS vendors, and the architect/engineer (A/E); generating plant conceptual design.

- b. July 1974 — Assigned as Principal Engineer to the Brunswick Steam Electric Plant as Engineering Start-Up Coordinator. Responsible for identifying engineering areas which were not properly supporting start-up effort and rectifying the situation. Emphasis was given to interfacing with CP&L construction and operation organizations to optimize feedback and execution.
- c. August 1975 - Promoted to Manager - Corporate Nuclear Safety Section of the Special Services Department. Transferred from Power Plant Engineering Department.
- d. June 1976 - Assigned as Manager - Corporate Nuclear Safety Section in the Technical Services Department.
- e. December 1976 - Manager - Corporate Nuclear Safety Section, System Planning & Coordination Department.
- f. December 14, 1976 - Transferred to the Power Plant Engineering Department as Manager - Nuclear Plant Engineering Section.
- g. January 13, 1977 - Assigned as Manager of Engineering Pool Section of the Power Plant Engineering Department, accountable for designing and engineering safe, economical, constructible, and operable power plants that have as little impact on the natural environment as possible by interacting with necessary project entities and by managing, supervising, developing, training, and motivating and organization of Company employees to carry out such activities.
- h. December 1, 1979 - Assigned as Manager - Harris Plant Engineering Section of the Nuclear Power Plant Engineering Department, Shearon Harris Nuclear Power Plant, New Hill, N. C.

III. PROFESSIONAL SOCIETIES

A. ANS

B. P.E. - California - 1976

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of)

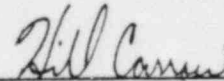
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POWER AGENCY)

(Shearon Harris Nuclear Power Plant,)
Units 1 & 2))
)
)
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Docket Nos. 50-400 OL
50-401 OL

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Motion for Summary Disposition of Eddleman Contention 75", "Statement of Facts Material to Eddleman 75 As To Which There Is No Genuine Issue To Be Heard", "Affidavit of William T. Hogarth in Support of Summary Disposition of Eddleman Contention 75 (Biofouling)", and "Affidavit of Leonard I. Loflin in Support of Summary Disposition of Eddleman Contention 75 (Biofouling)" were served this 1st day of September, 1983 by deposit in the United States mail, first class, postage prepaid, to the parties on the attached Service List.



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Dated: September 1, 1983

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