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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
CAROLINA POWER AND LIGHT COMPANY AND NORTH CAROLINA EASTERN MUNICIPAL POWER AGENCY	)	Docket Nos. 50-400 OL 50-401 OL
(Shearon Harris Nuclear Power Plant, Units 1 and 2)	)	

SUPPLEMENTAL AFFIDAVIT OF NORMAN H. WAGNER
RESPONDING TO THE CHAN VAN VO DAVIS AFFIDAVIT DATED NOVEMBER 25, 1984

State of Maryland) SS
County of Montgomery)

Norman H. Wagner, have first been duly sworn, hereby states as follows: I am employed as an engineer in the Auxiliary Systems Branch of the Division of Systems Integration, Office of Nuclear Reactor Regulations and am the Staff reviewer of auxiliary systems for the Shearon Harris operating license application. My educational qualifications and professional experience are set forth immediately below.

Education

B.S. - Chemical Engineering - C.C.N.Y., 1948

M.S. - Chemical Engineering, University of Cincinnati, 1952

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Experience

I have been with the U.S. Nuclear Regulatory Commission from its inception in 1975, with a short period (from January 1975) with the U. S. Atomic Energy Commission. In my career with the Nuclear Regulatory Commission I have been assigned to the Reactor Systems Branch, to the Systems Interaction Branch and to the Auxiliary Systems Branch at times and in the capacities shown below:

From January 1975 to approximately September 1980. I served as an engineer in the Reactor Systems Branch, with the title of Reactor Engineer. In that capacity I performed licensing case reviews, checking adherence of reactor systems in nuclear power plants to the rules and regulations stipulated by the Nuclear Regulatory Commission. In September of 1980 I was transferred to the newly formed Systems Interaction Branch where I, with other members of the branch, attempted to develop a systematic methodology for reviewing nuclear power plants for adverse system interactions. I was transferred back to the Reactor Systems Branch in July 1981 when the Systems Interaction Branch was dissolved, and then to the Auxiliary Systems Branch in December 1981 where I am presently; in this capacity my main effort is reviewing plant systems and assuring compliance of these systems with the rules and regulations of the Nuclear Regulatory Commission.

Response

I have reviewed the affidavit of Mr. Chan Van Vo Davis dated November 25, 1984 with regard to the main feedwater pumps and main feedwater piping within the turbine building and the effect of cold pulling a feedwater pump discharge line, and consequent misalignment when mated to the feedwater pump (1A-NNS). After this review I continue to maintain the response contained in my affidavit of November 7, 1984 which states:

Response Of November 7, 1984

I have reviewed the Affidavit of Mr. Chan Van Vo Davis dated October 6, 1984. Mr. Davis alleges on Pages 5 and 6 of his Affidavit that a 24 inch carbon steel pipe was "cold pulled" to fit the pipe to the discharge nozzle of steam generator feedwater pump 1A-NNS. This pump pumps water to the steam generators.

Figures 10.1.0-3 and 10.1.0-4 in the Shearon Harris Final Safety Analysis Report (Amendment 15) are flow diagrams which include the pump in issue. It does not appear that there is a 24" pipe attached to the pump's discharge nozzle. The pump appears to have an 18" discharge nozzle.

Pipes leading in and out of the steam generator feedwater pump 1A-NNS, and the pump itself, do not perform a safety-related function. Failure of that pump or its piping will not prevent bringing the Harris facility to a cold shutdown mode.

The concerns raised by Mr. Davis on pages 5 and 6 of his Affidavit relating to piping attached to steam generator feedwater pump 1A-NNS do not raise safety concerns for the facility. This is also evident from the pump's designation 1A-NNS. The NNS is the Applicants' nomenclature for non-nuclear safety equipment.

End Of November 7, 1984 Response

It is the staff's position that the feedwater pumps, valves and piping within the turbine building do not perform any safety-related function. Supplementing my previous affidavit I refer to the Shearon Harris Final Safety Analysis Report, pages 39 and 40 of Table 3.2.1, "Classification of Structures, Systems, and Components" in confirmation. As shown in Table 3.2.1 (in Amendment 3, dated June 30, 1982 or prior thereto) only the feedwater piping and valves from the steam generator up to and including the main feed isolation valve (MFIV) check valve within the auxiliary building and containment building are designed to the standards of safety class 2 (SC-2). This MFIV check valve, together with the pneumatic-hydraulically operated valve immediately downstream, also SC-2, serves to isolate the feedwater from the steam generators so that fluid from the feedwater pumps can not pass into containment nor can fluid pass out of containment along the main feedwater piping (containment isolation) in the event of an accident. The feedwater pumps, remaining valves and piping are safety class NNS. The Shearon Harris safety classes 1, 2, and 3 correspond to NRC Quality Groups A, B, and C, respectively. NNS corresponds to Quality Group D. These

are defined in Regulatory Guide 1.26, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive Waste-Containing Components of Nuclear Power Plants." Quality Group B (corresponding to classification SC-2 in the Shearon Harris classification system) includes the portions of the feedwater systems of pressurized water reactors extending from the steam generators up to and including the outermost isolation valve which is, in this case, the MFIV check valve. Group D applies to water containing components not included in Group B or C but which may contain radioactive material. Only components in Group B and C (corresponding to safety classes 1, 2, and 3, respectively in the Harris classification scheme) have safety-related functions while components in Group D do not.

For further explanation I refer to Section 10.4.7.3, "Safety Evaluation" of the Shearon Harris FSAR (Amendment 0, dated prior to January 29, 1982). The first sentence below that heading states, "Operation of the condensate and main feedwater pumps is not required for safe shutdown of the plant." The staff agrees with this statement. A similar statement which was written by me and which is consistent with the applicant's statement, appears in the NRC Safety Evaluation Report (SER), "Safety Evaluation Report Related to the Operation of Shearon Harris Nuclear Power Plant Units 1 and 2," dated November 1983 (NUREG-1038). The statement, on page 10-14 of the SER, under the heading 10.4.7, "Condensate and Feedwater System" states "the system serves no safety function (with the exception of containment isolation integrity)".

Therefore in my view, neither the affidavit of November 25, 1984 nor the attachments thereto support Mr. Davis' thesis that the feedwater pump and attached feedwater piping are safety-related components.

Norman H. Wagner

NORMAN H. WAGNER

Subscribed and sworn to before me
this 6th day of December 1984

MAXINE B. LAIEFSKY NOTARY PUBLIC MONTGOMERY COUNTY, MD.

NOTARY PUBLIC

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POWER AGENCY	)	50-401 OL
	)	
(Shearon Harris Nuclear Power Plant, Units 1 and 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "SUPPLEMENTAL AFFIDAVIT OF NORMAN H. WAGNER RESPONDING TO THE CHAN VAN VO DAVIS AFFIDAVIT DATED NOVEMBER 25, 1984", in the above-captioned proceeding have been served pursuant to the telephone conference call among the Board and parties held on December 5, 1984, on the following by deposit in the United States mail, first class, or deposit in the Nuclear Regulatory Commission's internal mail system (*), this 6th day of December 1984.

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