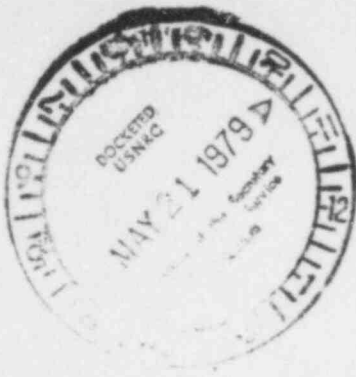


May 17, 1979



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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)	
)	
VIRGINIA ELECTRIC AND POWER COMPANY)	Doc. Nos. 50-3380L
)	50-3390L
(North Anna Power Station, Units)	(Pump House Settlement
1 and 2))	and Turbine Missiles)

VEPCO'S MOTION FOR
INTERIM TECHNICAL SPECIFICATION CHANGE

As Vepco explained in its "Testimony on Service Water Pump House Settlement," served on this Appeal Board April 27, 1979, the current Technical Specification 3/4.7.12 for North Anna Unit 1 sets a limit on the average settlement of the service water pump house of 0.15 foot since December 1975 (see pp. 15-16 of the testimony). As also described in that testimony, Vepco requested a change in the Tech Spec limit on June 13, 1978 (testimony p. 19) to a value based on the movement that can be safely accommodated by the expansion joints in the service water lines.

The settlement of the pump house was not a contested issue in this proceeding. Nevertheless, the ASLB considered it in some detail and made findings, the key ones of which were the following:

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The results indicate that saprolite will safely support the service water reservoir and the other structures founded on it. These results have been evaluated by the Staff and its consultants and by the ACRS and its consultants. . . . The Board finds that the problem of differential settlement has been dealt with satisfactorily since it was identified as a significant safety matter.

Virginia Electric and Power Co. (North Anna Nuclear Power Station, Units 1 & 2), LBP-77-68, 6 NRC 1127, 1149 ¶57 (1977); see also id. ¶¶9, 11, 52-56. No exceptions were taken to these findings.

As the ASLB's opinion says, the ACRS has also reviewed the settlement at North Anna. The ACRS concluded in a letter of July 20, 1977, that it need not alter its report on the North Anna Station (Letter of July 20, 1977, from Raymond F. Fraley, ACRS Executive Director, to Lee V. Gossick, NRC Executive Director for Operations). The NRC Staff made another presentation to the ACRS on the settlement matter on November 3, 1978, but the ACRS has not spoken further on the matter.

In the Appeal Board's decision of August 25, 1978 (ALAB-491), the Board retained jurisdiction over the subject of pump house settlement. Then, in its Memorandum and Order of February 28, 1979 (ALAB-529), the Board found it necessary to explore further the issue of pump house settlement. In another Memorandum and Order, this one dated April 9, 1979, the Board announced its intention to hold the evidentiary hearing during the week of June 18, 1979.

The NRC Staff, for its part, has already concluded that the allowable settlement can safely be increased, but not to

the exact limits Vepco has proposed. This conclusion appears in the letter to the Appeal Board from the Staff counsel on December 22, 1978. In the same letter, however, Staff counsel said that the Staff will not increase the allowable settlement until the Appeal Board gives its approval:

While the Staff believes that, pursuant to 10 C.F.R. § 2.717(b) it could issue a license amendment authorizing the revised technical specifications described in the attached safety evaluation, the facts in this proceeding indicate that the amendment is not immediately required. Accordingly, the Staff will not take any action with respect to VEPCO's request for the license amendment until the Appeal Board has expressed its opinion on the subject.

(Letter to the Appeal Board from NRC Staff counsel, December 22, 1978). Section 2.717(b) of 10 CFR reads as follows:

The Director of Nuclear Reactor Regulation or the Director of Nuclear Material Safety and Safeguards, as appropriate, may issue an order and take any otherwise proper administrative action with respect to a licensee who is a party to a pending proceeding. Any order related to the subject matter of the pending proceeding may be modified by the presiding officer as appropriate for the purpose of the proceeding.

The absence of any immediate need for an increased Technical Specification limit noted in Staff counsel's letter may change in the next few weeks. Vepco's testimony on pump house settlement relies on settlement monitoring data through March of this year and shows that settlement over the past 20 months or so has been small and gradual. As noted in Vepco counsel's cover letter that accompanied the testimony on April 27, however, an early April survey showed a relatively large increase in settlement (about 0.01 foot since the March survey). In fact,

those data indicated that settlement had reached 92 percent of the Tech Spec limit. With the shutdown limit so near, Vepco has begun to make weekly measurements, and subsequent surveys have indicated less settlement than the 92 percent measured in early April. In summary, the results of the latest surveys are the following:

<u>Date</u>	<u>Amount of Settlement since December 1975</u>	<u>Percentage of Tech Spec Limit of 0.15 Foot</u>
March 7, 1979	0.126 foot	84.0%
April 6, 1979	0.138	92.0
April 25, 1979	0.134	89.3
May 1, 1979	0.133	88.7
May 9, 1979	0.137	91.3

These last surveys confirm that there is a continuing slow settlement of the pump house and provide further illustration that, despite the precision equipment and procedures used by the surveyor, measurement of elevation can vary by a few thousandths of a foot, either up or down, from the true value, as can be seen in Figures 7 of Vepco's testimony. On March 7, it appears that the elevations were measured slightly on the high side, while on April 6 the measurements appear to have been on the low side; the difference gave the appearance of a relatively large amount of settlement in a period of a month.

As the continuing settlement slowly reduces the margin for error with respect to the Tech Spec limit of 0.15 foot, there is a risk that normal variation in measurement on the low side could cause the calculated average settlement to exceed the 0.15-foot limit (even though the following survey

might show settlement to be less than this limit). Thus there is a possibility that the power station might have to be shut down needlessly in the not-too-distant future, before this proceeding can be concluded. Shutting down the power station would not, it seems to Vepco, be in the public interest, because both Vepco's engineers and the NRC Staff have concluded that additional settlement can safely be allowed.

For the above reasons, Vepco asks the Appeal Board to direct the NRC Staff to increase the allowable pump house settlement limits in the North Anna 1 and 2 Technical Specifications to the extent the Staff thinks justified on the basis of the Staff's own safety review. In the alternative, Vepco asks the Appeal Board to authorize the Staff to increase the allowable settlement pursuant to 10 CFR § 2.717(b). In either case, Vepco asks for such Appeal Board action to be effective only in the interim until the settlement issue in this proceeding is resolved.

Respectfully submitted,

VIRGINIA ELECTRIC AND POWER COMPANY

/s/ James N. Christman

James N. Christman

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DATED: May 17, 1979

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)	
VIRGINIA ELECTRIC AND POWER COMPANY)	Doc. Nos. 50-3380L
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		and Turbine Missiles)

AFFIDAVIT OF E. ASHBY BAUM

My name is E. Ashby Baum. I am Executive Manager - Licensing and Quality Assurance for Virginia Electric and Power Company (Vepco). In that capacity, I am responsible for the licensing by the Nuclear Regulatory Commission of all Vepco nuclear power stations.

The document entitled "Vepco's Testimony on Pump House Settlement," which was served on the Appeal Board and parties to this proceeding on April 27, 1979, was prepared by competent engineers at Stone & Webster (chiefly Messrs. MacIver, Lucks, and Bradbury, whose statements of professional qualifications were served along with the testimony) and reviewed by me and other Vepco personnel. Apart from the minor errors in plotting of data pointed out in the "NRC Staff Testimony Regarding Pump House Settlement" at 14-15 (Apr. 27, 1979), I believe Vepco's testimony to be true and correct.

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Since the April 27 testimony was prepared, however, additional settlement measures have been made. The most recent surveys (including the data of March 7, 1979, which were incorporated into the April 27 testimony) show the following:

<u>Date</u>	<u>Amount of Settlement Since December 1975</u>	<u>Percentage of Tech Spec Limit of 0.15 Foot</u>
March 7, 1979	0.126 foot	84.0%
April 6, 1979	0.138	92.0
April 25, 1979	0.134	89.3
May 1, 1979	0.133	88.7
May 9, 1979	0.137	91.3

Vepco's engineers advise that the last surveys noted above confirm that there is a continuing slow settlement of the pump house and provide further illustration that, despite the precision equipment and procedures used by the surveyor, measurement of elevation can vary from the true value by a few thousandths of a foot, either up or down, as can be seen in Figures 7 of Vepco's testimony. On March 7 it appears that the elevations were measured slightly on the high side, while on April 6 the measurements appear to have been on the low side; the difference gave the appearance of a relatively large amount of settlement in a period of a month.

Vepco's engineers further advise that as the continuing settlement slowly reduces the margin for error with respect to the Tech Spec limit of 0.15 foot, there is a risk that normal variation and measurement on the low side could cause the calculated average settlement to exceed the 0.15-foot limit (even though the following survey might show settlement to be less than this

limit). Thus, there is a possibility that the power station might have to be shut down in the not-too-distant future, before this proceeding can be concluded.

Shutting down the power station would not, it seems to Vepco, be in the public interest. Vepco's Power Supply Department reports that the cost of replacement power for one of the North Anna units is as much as \$300,000 per day, assuming that the replacement power is provided by oil-fired generation.

E. Ashby Baum

DATED: May 17, 1979

Signed and sworn to here before me by E. Ashby Baum this 17th day of May, 1979.

Cynthia Lee Stowell
Notary Public

My commission expires June 11, 1979

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served Vepco's Motion for Interim Technical Specification Change upon each of the persons named below by first class mail, postage prepaid:

Secretary
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Washington, D.C. 20555

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By /s/ James N. Christman
James N. Christman, Counsel
for Virginia Electric and
Power Company

DATED: May 17, 1979

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