November 29, 1978

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Docket Nos. 50-280
and 50-281

Virginia Electric and Power Company
ATTN: Mr. W. L. Proffitt
Senior Vice President - Power
Post Office Box 26666
Richmond, Virginia 23261

Gentlemen:

By letter dated September 22, 1978, you requested amendments which would change the Surry Power Station Units 1 and 2 Technical Specifications, Section 4.4, "Containment Tests". This change would reference 10 CFR 50 Appendix J except for the containment personnel air lock, which would be an exemption to Appendix J.

You proposed that the containment personnel air lock be leak tested at four month intervals with no intermediate tests should the air locks be opened during such intervals.

Based on our review of your proposed testing program for the containment personnel air lock, we have concluded that it is not acceptable because it does not provide alternate testing methods which meet the intent of Appendix J.

We have enclosed our position on containment air locks which provides acceptable methods for testing. We request that, since we cannot accept your proposal as stated, you provide an alternative using the guidance enclosed. Until such time that a specific exemption from the air lock testing requirements of Appendix J is granted, you must meet the air lock testing requirements at six month intervals and after each opening.

Your response is requested within 30 days of the date of this letter so that we may continue our review.

App 3 cp

Sincerely,

Original Signed By:

Victor Stello, Director
Division of Operating Reactors
~~Office of Nuclear Reactor Regulation~~

7812110063

ONRR
E Case

Enclosure:
Position

*SEE PREVIOUS YELLOW FOR CONCURRENCE

OFFICE	DOR:ORB1*	DOR:ORB1*	DOR:AD:S&P*	OELD	DOR
SURNAME	DNeighbors:jb	ASchwencer	DGEisenhut	CUTCHIN	VStello
DATE	11/2/78	11/2/78	11/2/78	11/29/78	11/29/78

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Sincerely,

Victor Stello, Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

Enclosure:
Position

cc: w/enclosure
See next page

OFFICE	OELD	DOR:ORB1	DOR:ORB1	DOR:AD:S&P	DOR
SURNAME		DNeighbors:jd	ASchwencer	DGEisenhut	VStello
DATE	11/ /78	11/24/78	11/ /78	11/2/78	/ /78

cc: Mr. Michael W. Maupin
Hunton & Williams
Post Office Box 1535
Richmond, Virginia 23213

Swem Library
College of William & Mary
Williamsburg, Virginia 23185

Donald J. Burke
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Office of Inspection and Enforcement
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

CONTAINMENT AIRLOCKS

Appendix J to 10 CFR 50 requires that reactor containment airlocks be leak tested at the peak calculated accident pressure (Pa) at six month intervals. Further, should the air locks be opened during such intervals, the airlocks will be leak tested after each opening. Appendix J calls out these specific requirements for airlocks because they represent a potentially large leakage path that is more subject to human error than other isolation barriers.

The staff's interpretation of the objectives of the airlocks leak testing requirements are (1) that the six month test will provide an integrated leakage rate for the entire airlock assembly, including electrical and mechanical penetrations, the airlock cyclinder, hinge assemblies, welded connections, and other potential leakage paths; and (2) that the "after each opening" test would provide a means of assuring that the door seals had not been damaged or seated improperly during airlock use.

For those operating facilities that were designed and constructed prior to the issuance of Appendix J, consideration has been given to alternatives to the specific testing requirements which will meet the intent of Appendix J. Listed below are a number of guidelines which may be useful.

1. At six month intervals, the entire airlock assembly must be leak tested at the peak pressure, Pa. If the test pressure will lift the inner airlock door off its seat, strongbacks or other mechanical devices should be used so that meaningful test results can be obtained at Pa.

2. Should the airlock be opened during the interval between the six month tests, the airlock door seals shall be leak tested within 72 hours of the first of a series of openings. This relaxation in the "after each opening" test requirement of Appendix J recognizes that a significant amount of time is required to conduct these intermediate tests in relation to the frequency of use of the airlock. These tests would be conducted whenever containment integrity is required.

3. For those plants which require the use of strong back or clamps to leak test the door seals at a pressure Pa, a lower pressure (e.g., manufacturer's recommended pressure which would not require the use of such clamping devices) should be used to conduct the intermediate tests. The results of leakage tests at the lower pressure shall be conservatively extrapolated to a leakage rate at the accident pressure Pa to determine acceptability.

4. In lieu of the intermediate tests an acceptable alternative would be the use of a continuous leakage monitoring system. As in the case of reduced pressure intermediate tests it must be demonstrated that the leakage rate using a continuous pressurized monitoring system is sufficiently sensitive, and can and will be conservatively extrapolated to the leakage rate that would be experienced under accident conditions (e.g., at a pressure of Pa).