

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

July 18, 1988

D. S. CRUDEN  
VICE PRESIDENT-NUCLEAR

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Serial No. 88-451  
NO/DJV:jmj  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION UNITS 1 AND 2  
REQUEST FOR ENFORCEMENT DISCRETION  
TECHNICAL SPECIFICATION 3.6.1.5

Virginia Electric and Power Company requests that NRC Region II exercise enforcement discretion regarding North Anna Units 1 and 2 compliance with Technical Specification 3.6.1.5, Primary Containment Average Air Temperature. Specifically, enforcement discretion is requested to permit continued operation of the units with containment average air temperatures up to 110°F. Relief from Technical Specification 3.6.1.5 is needed to permit continued unit operation during this period of extremely warm weather and narrow electrical generation reserve margins due to the outages of other units. The containment temperatures for each unit are currently being maintained just below the Technical Specifications limit of 105°F. However, if the current period of extremely warm weather continues as predicted, the 105°F limit could be exceeded and both units would have to be shut down. A containment temperature limit of 110°F would provide additional operating margin while maintaining required safety margins as discussed below, and would not be expected to be exceeded during this period.

The effects of the warm weather on the containment have been recently compounded by the breakdown of the mechanical chiller unit which is the normal source of chilled water for containment cooling. The backup steam chillers which are currently operating have less cooling capability than the mechanical chiller and, therefore, provide less cooling of containment. We are working to restore the mechanical chiller as soon as possible. We currently expect that the chiller will be returned to service on July 19, 1988. Also, we have taken steps to maximize the performance of the steam chillers.

We have evaluated continued operation with containment temperatures up to 120°F and concluded that the units could continue to operate safely and that this operation would not present an unreviewed safety question as defined in 10 CFR 50.59. This evaluation was presented in our letter of March 2, 1988 in which we requested a change to the North Anna Units 1 and 2 Technical

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Specifications to permit operation at containment temperatures up to 120°F. The evaluation included analyses of the containment response to loss of coolant accidents and main steam line breaks, as well as the effects on net positive suction head (NPSH) for the inside and outside recirculation spray pumps. It was concluded that the applicable design criteria for the containment and the pumps are met for containment temperatures of 86°F to 120°F, and therefore the criteria are met for a containment temperature of 110°F. These criteria are as follows: the peak containment pressure post-accident shall be less than 45 psig, the containment shall be depressurized to subatmospheric within one hour and remain subatmospheric for the duration of the event, and the available NPSH shall exceed that required by the pump manufacturer. Each of the above criteria was shown to be met for containment temperatures of 86°F to 120°F. The calculated peak containment pressure for an initial containment temperature of 120°F was 44.1 psig. As was discussed in our March 2, 1988 letter, this pressure slightly exceeds the pressure at which the containments were tested during the most recent leak rate tests. However, an evaluation of the analysis results shows that for an initial containment temperature of 110°F the postulated accident peak containment pressure would be less than the pressure at which the containments were last tested and well within the accident analysis acceptance criteria. In addition as we committed in our Technical Specifications change request, we will monitor the period of time in which the units operate above 105°F and evaluate any required changes in equipment service lifetimes or maintenance schedules in order to preserve equipment environmental qualification.

Based on the above, we request that the NRC exercise enforcement discretion to permit continued operation of the North Anna units with containment temperatures up to 110°F until such time as the mechanical chiller unit has been returned to service and operated at its required capacity for a period of 24 hours, or July 24, 1988, whichever is sooner.

Very truly yours,



D. S. Cruden

cc: U. S. Nuclear Regulatory Commission  
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