

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

R. H. LEASBURG  
VICE PRESIDENT  
NUCLEAR OPERATIONS

October 26, 1982

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
Attn: Mr. Robert A. Clark, Chief  
Operating Reactors Branch No. 3  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Serial No. 601  
NO/RCC/jmj/SP4  
Docket No. 50-338  
License No. NPF-4

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION UNIT NO. 1  
STEAM GENERATOR IMPACTED TUBE ENDS RECOVERY EVALUATION  
REACTOR COOLANT PUMP DIFFUSER ADAPTER BOLT FAILURE

The purpose of this letter is to provide the details of the examinations and evaluations performed by Vepco and Westinghouse Electric Corporation on the steam generator impacted tube ends and the reactor coolant pump diffuser adapter bolt failure experienced at North Anna Unit No. 1.

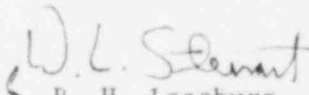
Attachment I provides a detailed evaluation of the damaged tube ends, tubesheet, divider plate, and channel head bowl found in steam generators "A" and "C". In Attachment II you will find photographs and enlargements of the condition prevalent in both of the damaged steam generators. Attachment III is a description of the repair process Vepco is using to correct the damage to the tube ends.

Attachment IV is the evaluation of the reactor coolant pump diffuser adapter bolt failure. Vepco, Westinghouse, and Babcock & Wilcox are still evaluating the cause of the failure. All reactor coolant pumps in North Anna Unit 1 have had the diffuser adapter bolts replaced with the bolts recommended in the Westinghouse report. As indicated in the attachment, failure of the bolts would not present a safety concern for the reactor coolant system. Vepco concurred with the Westinghouse evaluation and decided to replace the bolts for Unit 1 based on economic considerations.

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We will continue to keep you informed on the progress of our evaluations of the problems at North Anna. We will be providing you by separate letter the flow splitter stub analysis and the report on Vepco's efforts to search for and retrieve loose parts in the Reactor Coolant System (RCS). If you have any questions regarding the details of the evaluations provided by this letter, please contact us at your earliest convenience.

Very truly yours,

  
R. H. Leasburg

Attachments: I. North Anna Unit 1 Steam Generator Impacted Tube Ends Recovery Evaluation  
II. Photographs of Damaged Tube Sheets (Steam Generators "A" and "C")  
III. Summary of Steam Generator Tube End Damage Repairs  
IV. RCP Diffuser Adapter Bolt Failure - North Anna Unit No. 1

cc: Mr. Richard C. DeYoung, Director  
Office of Inspection and Enforcement  
Washington, D.C. 20555

Mr. James P. O'Reilly, Regional Administrator  
Region II  
Atlanta, Georgia 30303