

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

W. L. STEWART  
VICE PRESIDENT  
NUCLEAR OPERATIONS

December 16, 1983

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

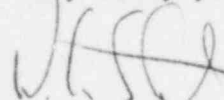
Serial No. 683  
NO/JHL:acm  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2  
RESPONSE TO THE REQUEST FOR INFORMATION CONCERNING  
THE EVALUATION OF THE MAIN TRANSFORMER FAULTS

Enclosed is Vepco's response to your November 14, 1983 request for additional information concerning the recurring main transformer faults that have occurred at North Anna Power Station. The requested information pertained to specifics enclosed in Vepco's standard procedures used for the installation and maintenance of the Westinghouse transformers. Vepco's standard procedures for the installation and maintenance of the Westinghouse transformers at North Anna Power Station were designed to meet or exceed those contained in the applicable Westinghouse instruction leaflets.

Very truly yours,

  
W. L. Stewart

cc: Mr. James P. O'Reilly  
Regional Administrator  
North Anna Power Station

Mr. M. W. Branch  
NRC Resident Inspector  
North Anna Power Station

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RESPONSE TO THE REQUEST FOR INFORMATION CONCERNING  
THE EVALUATION OF THE MAIN TRANSFORMER FAULTS THAT  
HAVE OCCURRED AT NORTH ANNA POWER STATION

Request (A): Provide the frequency of oil testing, checking and servicing of auxiliary equipment, and recording transformer operating data (pressure, temperature).

Response (A): The oil was tested for dissolved gas and moisture on a monthly basis beginning in September, 1980. This continued for seven months. The schedule was then modified to call for quarterly oil tests but was tested more frequently because of the failures that occurred during 1981 and 1982. All oil test results were satisfactory.

The temperature gauges on each of the GSU transformers were recorded daily. During this check the operation of the fans and pumps were noted. There are alarms associated with high temperature and with loss of auxiliary pumps and fans. Additional inspections were performed on a quarterly basis and included checking all auxiliary equipment, pressures, temperatures, etc. in much greater detail.

Request (B): Provide precautions used when working and entering the transformer tank (e.g. for bushing connections, etc.) to avoid contaminations.

Response (B): In addition to measuring and assuring the proper amount of oxygen within the transformer tank for personnel safety and always having someone on the top of the tank observing those working inside, we took special precautions to assure the transformer would not be contaminated by foreign debris or moisture. We observed all precautions recommended by Westinghouse to include the following:

Personnel entering the tank were limited to those required to do the work.

Anyone on top of the tank or in the tank was required to remove all material from their pockets, check for loose buttons, remove wristwatches, rings, pencils or any other object that might fall into the transformer. All tools, flashlights, etc. were inventoried before and after entry and were secured with linen or cotton tape to prevent droppage. All shoes were checked for cleanliness and clean protective shoe covers were utilized by anyone entering the tank.

The tank was left open only long enough to perform the work under controlled

humidity conditions and a vacuum was pulled on the transformer tank when it was closed.

All of the above precautions, all precautions noted in the Westinghouse leaflet, and any common sense precautions were taken by all personnel entering the GSU transformers at North Anna. There were always experienced, well trained personnel on hand to assure that all precautions were taken to avoid contamination when entering the transformer tank.

Request (C): Storage and handling of the transformer and auxiliary equipment (e.g. bushings, coolers, pumps, etc.).

Response (C): Bushings, coolers, pumps, and other auxiliary equipment were handled and stored in accordance with Westinghouse instructions during transportation and storage. The transformers were fully assembled (including bushings, coolers, pumps, etc.) and processed for service in July 1974 on Unit #1 and April 1977 on Unit #2. During the periods of transportation and storage, extra emphasis was placed on proper handling and storage practices.