

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 29, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 065
PO/FHT:baw
Docket Nos: 50-280
50-281
License Nos: DPR-32
DPR-37

Dear Mr. Denton:

Surry Power Station Units 1 and 2
New Steam Generator Nozzle Design

Surry Unit 2 is nearing completion of the Steam Generator Replacement Outage and should be returning to service this spring. Replacement of the Steam Generators (SG's) was necessitated by loss of tube integrity and the extensive maintenance required to allow operation. The new SG's have many new design features intended to prevent continued tube deterioration, and with the retubing of the condenser, will assure reliable plant operations.

One particular design change, that of the SG nozzles, is of interest in light of the recent concerns about SG feedwater nozzle cracking. IE Bulletin 79-13 and our responses (listed in the attachment) document activities to date to identify and repair feedwater piping problems. A description of the new nozzle design was included in our letters Serial No. 351, dated August 17, 1979, entitled Steam Generator Project Surry Power Station, Unit Nos. 1 and 2 and Serial No. 222 dated April 27, 1978.

Sections 2.3.20 and 2.6.5 of the April 27, 1978 submittal describe the new nozzle design and this information is repeated here:

"The new feedwater distribution ring will be supported in such a way as to allow a welded connection to the feedwater nozzle. This welded connection will eliminate feedring drainage when the water level is allowed to drop below the ring...In addition the feedring will be provided with J-tubes. The combination of J-tubes and welded feedwater nozzle will significantly reduce the possibility of waterhammer".

A diagram comparing the old and new designs was submitted with our April 27, 1978 letter as figure 2.3-5 in the supplement to the Steam Generator Program, Proprietary Information, and is therefore not included here.

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It should be noted that the new design was issued prior to the present concerns about feedwater piping cracking. The cause of the cracking is still under investigation by Westinghouse and any statement about possible advantages of a welded nozzle with respect to preventing the observed nozzle cracks would be premature at this time.

Very truly yours,

C. M. Stallings

C. M. Stallings
Vice President-Power Supply
and Production Operations