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April 19, 1990

Mr. Hans Ashar
Office of Nuclear Reactor Regulation
U.S. Regulatory Commission
Mail Stop WF1-8D22
Washington, D.C. 20555

Subject: Visconorust 2090 P-4 Casing Filler
Inservice Tendon Surveillance

Dear Mr. Ashar:

We are writing you these following comments on some inservice Tendon Surveillance requirements that have recently come to our attention as you have been our contact with the NRC for many years.

In September of 1985, a Mr. Andrew P. Neuhalfen, Union Electric Co., wrote a letter to Mr. James G. Keppler, Regional Administrator, U.S. NRC, Glen Ellyn, IL, a copy of which is attached, that we thought certainly addressed the matter of voids in the ducts in Surveillance and the action of our corrosion preventive very well.

We were never questioned on this matter, nor asked to visit any committees that were reviewing Tendon Surveillance after the original committee meetings years ago.

The point of our letter is that the statements comming from the NRC requiring that the void area in a tendon be less than 5% is an impossible situation, as also noted by the comments in Mr. Neuhalfen's letter.

The original design of our system took into account that there would be voids, and a total 20% void made up of the different variables could happen. This is one of the reasons each member of the tendon was coated with our initial coatings - Visconorust 1001 Amber or both the Visconorust 1601 Amber and 1702 - to be sure the internal members of the tendon were coated until the Visconorust 2090 P-4 Casing Filler had a chance to gradually seep into the internal voids of the tendon.

The key to the whole system is the fully coating of the tendon and some initial penetration into the tendon bundle during the original pumping. Once the tendon is coated hot in this manner the Visconorust 2090 P-4, on cooling, contracts but leaves a heavy film up to 20 mils or more on the tendon surface. This provides ample extended corrosion protection as seen now with over 20 years of Surveillance history without tendon corrosion problems.

It is recognized that during the surveillance operation there is a good chance of trapping air pockets in the trumpet when they refill the tendon with the corrosion preventive, but again the tendon is coated. Trying to pump the Visconorust 2090 P-4 in one end of the tendon and out the other end, probably causes more harm then good, as the system was well coated initially and pressurizing the system to try and break through the solid Visconorust 2090 P-4 can possibly force product through weak locations in the tendon sheathing and into the containment building, or blow vent caps or seals. Also pumping excessive product into the tendon could over fill the system and not leave room for expansion when the whole system is heated up again during plant operation.

We therefore suggest that no attempt be made to consider voids unless there definitely has been extensive leakage. The volume of casing filler lost during surveillance should be pumped back into the systems from both ends of the tendon.

On the "U" shaped tendon of the hemispherical plants the dome vents should only be topped off once, if needed, by pouring in the casing filler. Continually doing this would overfill the system leaving no room for expansion.

All introduction of Visconorust 2090 P-4 Casing Filler back into the tendon system should be done with heated material at 150°F minimum.

We would be very happy to further review the above discussion regarding the matter of voids, the operability of the system, and the possible passage of casing filler into the concrete surrounding the tendons, at an ASME Committee meeting.

For your immediate interest please note that the Visconorust 2090 P-4 Casing Filler, in use since 1974, has a considerably higher melting point (140°F) compared with the original type casing filler that flowed at 105°F. Also since that time all surveillance work has used the Visconorust 2090 P-4 to replace the lower melting point casing filler for refill, which greatly assisted in raising the flow point of the casing filler in the older systems. These factors have helped in alleviating the leakage potential.

Sincerely,

C.W. Novak

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ENCLOSURE 2

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE
TECHNICAL SPECIFICATION 4.6.1.6.1.d.2

10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, GPC has evaluated the proposed amendment and has determined that operation of the facility in accordance with the proposed amendment would not involve a significant hazards consideration. The basis for this determination is as follows:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change only affects the requirement to measure the grease void fraction of the containment sheathing filler grease, and therefore, will have no effect on the probability of any accident previously evaluated. Furthermore, the remaining tendon surveillance requirements plus the proposed new requirement to replace at a minimum the grease removed during a surveillance will continue to ensure the capability of the tendons to perform their safety function. Therefore, containment integrity will be maintained during and following any previously evaluated accident, and the proposed change will have no effect on the consequences of such an accident.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not introduce any new equipment into the plant or require any existing equipment to be operated in a manner different than that for which it was designed. Containment integrity will continue to be maintained, and all initial and boundary conditions assumed for the accident analyses will remain the same.

3. The proposed change does not involve a significant reduction in a margin of safety. The basis for the existing requirement is to ensure that the containment tendons are protected from corrosion. However, the initial installation of the tendons plus the remaining surveillance requirements are adequate to ensure that the tendons are protected from degradation due to corrosion. Furthermore, considering the potential for damage as a result of trying to measure the grease void fraction, the margin of safety will be maintained under the proposed change.

Based on the above analysis, GPC has determined that the proposed change to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. Georgia Power Company therefore concludes that the proposed change meets the requirements of 10 CFR 50.92(c) and does not involve a significant hazards consideration.