VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

September 4, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. O. D. Parr, Chief
Light Water Reactors Branch No. 3
Division of Project Management
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Serial Nos. 630A/073179
631A/073179
LQA/ESG:esh

Docket Nos. 50-338
50-339
License No. NPF-4

Dear Mr. Denton:

In response to Mr. Parr's letters of July 31, 1979 concerning secondary water chemistry control for the North Anna Power Station Units 1 and 2, a secondary water chemistry monitoring and control program has been developed. A description of this program is attached. Appropriate procedures and administrative controls will be developed to implement this program.

A formal request for license amendment for Unit 1, which would delete the existing secondary chemistry Technical Specifications, and add a new license condition referencing the chemistry program, is currently under internal review. We anticipate submitting our amendment request on or about September 14, 1979.

Very truly yours,

H L Ruffin for
C. M. Stallings
Vice President-Power Supply
and Production Operations

Attachment

cc: Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
Region II

North Anna Power Station Units 1 and 2
Secondary Water Chemistry Monitoring Program Summary

Each steam generator blowdown line as well as the feedwater header will be sampled at least every 72 hours. As an alternative, the steam generator surface liquid can be sampled if blowdown is unavailable. Each sample will be analyzed for cation conductivity. Each steam generator sample will be considered acceptable if the steady state cation conductivity is $\leq$ 2 μ mhos/cm at 25°C and each feedwater sample will be considered acceptable if the steady state cation conductivity is $\leq$ 1 μ mho/cm at 25°C. In addition, a transient limit of $\leq$ 7 μ mhos/cm at 25°C for steam generator samples and a transient limit of $\leq$ 3 μ mhos/cm at 25°C for feedwater samples will be established. If the test results indicate the cation conductivity is greater than steady state but less than transient specification, samples will be taken daily to insure it is trending downward and it is within the steady state specification in 14 days. If, after 14 days, it is still greater than the steady state specification, the plant must be in Hot Standby within 12 hours. If the cation conductivity exceeds its transtent limit and is not trending downward, it must be restored within 72 hours or the plant must be in Hot Standby within the next 12 hours.

Chemistry personnel using approved chemistry procedures will perform all analyses and record the results. The samples are passed through a hydrogen form cation resin column to enhance the ability to read very low levels of conductivity. If the results are out of specification they will immediately notify the Shift Supervisor. In addition, the chemistry supervisor will periodically review the tabulated data for trends.

Returning out of specification chemistry to acceptable levels may require different actions to include, but not be limited to, blowdowns and secondary system cleanup. The action taken in any case will depend on the cause and the existing trend in parameter measurement.

This program may be amended by the Station Nuclear Safety and Operating Committee, as deemed necessary, to maintain plant operational flexibility and Secondary Water Chemistry Controls consistent with the intent of the program. The requirements of the program will be met via the Periodic Test Program. This will provide an established system for procedure approval, scheduling and performance.