

CERTIFIED MAIL
RETURN RECEIPT REQUESTED



VIRGINIA POWER

March 29, 1993

Mr. Kemper Loyd
Valley Regional Office
Virginia Water Control Board
116 North Main Street
Bridgewater, VA 22812

RE: NORTH ANNA POWER STATION - VA 0052451
CHEMICAL ADDITION CHANGE

Dear Mr. Loyd:

This is to request approval from your agency for a proposed change in chemical addition for pH control in the feedwater system at North Anna Power Station. As you may be aware, maintaining specific levels of pH in steam generation systems is essential in the control of corrosion in these systems. Currently, morpholine is the chemical additive employed for this pH adjustment. The proposed change will be to substitute another product, ethanolamine (Calgon Pre-Tect 7000), for morpholine.

In the feedwater systems, the target concentration of ethanolamine will be in the range of 0.5 - 2.5 ppm. Due to distribution properties under system temperature and pressure conditions, concentration in the blowdown from the steam generators, to internal Outfall 003, may increase to a maximum of 10 ppm. Typical concentration increases at blowdown are 2.5 times the feedwater concentration. At its maximum concentration in blowdown, and at the maximum blowdown rate of 35 gpm from each of six steam generators, the highest rate of discharge of ethanolamine, and its decomposition products, to the discharge canal would be about 26 pounds per day.

It should be noted that ethanolamine is already present in this discharge as a decomposition product of the morpholine currently in use. The ethanolamine is further decomposed to ammonia by hydrolysis. Without allowance for any decrease in concentration through decomposition, the concentration of ethanolamine at the Outfall 003 discharge, under worst case conditions, would be lower than the aquatic toxicity levels provided by the supplier. The supplier's data and the product Material Safety Data Sheet are attached.

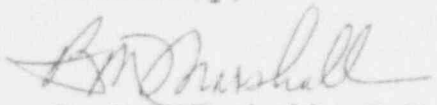
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Please let me know as soon as possible if the State Water Control Board has any objection to this chemical addition change. It would be appreciated if we could get your response on this matter in the near future as the station is interested in being in a position to implement this treatment during the first part of April 1993. Should you need additional information or have any questions about this matter, please contact Daniel James at 273-2996.

Sincerely,


B. M. Marshall, P.E.
Manager
Water Quality

cc: U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW
Suite 2900
Atlanta, GA 30323
Re: North Anna Units 1 & 2
Docket Nos. 50-338/50-339
License Nos. NPF-4/NPF-7

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
Re: North Anna Unit 1 & 2
Docket Nos. 50-338/50-339
License Nos. NPF-4/NPF-7

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station