

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 22, 1996

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 96-211
NL&OS/JBL: R0
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

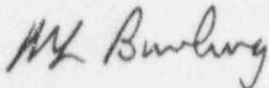
Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
ANNUAL ENVIRONMENTAL OPERATING REPORT

Pursuant to Section 5.4.1 of the Appendix B Technical Specifications, Environmental Protection Plan, enclosed is the Annual Environmental Operating Report for North Anna Power Station Units 1 and 2 for 1995.

Should you have any questions or require additional information, please contact us.

Very truly yours,



M. L. Bowling, Manager
Nuclear Licensing and Operations Support

Enclosure

cc: U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

Mr. R. D. McWhorter
NRC Senior Resident Inspector
North Anna Power Station

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VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

UNITS 1 AND 2

APPENDIX B

ENVIRONMENTAL PROTECTION PLAN

1995 ANNUAL REPORT

DOCKET NOS. 50-338 AND 50-339

INTRODUCTION

This 1995 Environmental Operating Report for the North Anna Power Station is submitted by Virginia Electric and Power Company as required under Section 5.4.1 of Appendix B, Environmental Protection Plan (EPP). The objectives of the EPP are to verify that the power station is operated in an environmentally acceptable manner, to coordinate NRC requirements, maintain consistency with other federal, state and local requirements, and to keep the NRC informed of the environmental effects of facility construction and operation. During 1995, no significant adverse environmental impact occurred as a result of the operation of North Anna Power Station, Units 1 and 2. Aquatic issues are addressed in the licensee's VPDES permit number VA 0052451 issued by the Virginia State Water Control Board. The VPDES permitting program is administered by the Department of Environmental Quality-Water Division and the NRC relies on this agency for regulation of matters involving water quality and aquatic biota. Listed below are the summaries and reports as required under Section 5.4.1 of the EPP.

PLANT DESIGN AND OPERATION (SECTION 3.1)

There were no changes in station design and operation proposed in 1995 that involved a potentially significant unreviewed environmental issue.

EROSION CONTROL INSPECTION - SITE (SECTION 4.2.2.1)

An on-site erosion control inspection was performed at North Anna Power Station by the Civil/Design Engineering Department beginning December 1, 1995 and ending on December 21, 1995, according to Periodic Test Procedures 1-PT-9.3, Erosion Control Inspection - Station Site. Erosion was minor or non-existent in most areas, only one area was determined to require remedial attention. Erosion was noted along the railroad tracks adjacent to the Site Construction Building. This area was repaired by filling with gravel, as in adjacent areas.

EROSION AND SEDIMENT CONTROL PROGRAM - CORRIDOR RIGHTS-OF-WAY (SECTION 4.2.2.2)

Erosion inspection on right of way was made on the North Anna - Midlothian, North Anna - Morrisville, North Anna - Gordonsville, and North Anna - Ladysmith lines on August 28, 1995. Locations were recorded where erosion was taking place on the North Anna - Morrisville, North Anna - Midlothian, North Anna - Gordonsville and the North Anna - Ladysmith lines. Most of these locations noted were caused by vehicle travel up and down the right of way. These areas were disced, fertilized, seeded, and mulched, to prevent erosion.

NONCOMPLIANCE (SECTION 5.4.1)

There were no Environmental Protection Plan occurrences of noncompliance during 1995.

NONROUTINE REPORTS (SECTION 5.4.2)

Enclosed are copies of letters detailing the occurrence of one unanticipated discharge (pages 4 - 5) and two VPDES exceptions (pages 6 - 9) occurring during 1995. None of these events resulted in a significant environmental impact causally related to station operation. However, the VPDES exceptions, resulting from a sewage treatment plant upset, did result in a Notice of Violation (page 10).

North Anna
COR 14/ Violations

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 26, 1995

Janardan R. Pandey
Valley Regional Office
Department of Environmental Quality
P. O. Box 268
Bridgewater, VA 22812

Re: North Anna Power Station - VPDES Permit No. VA0052451
Unusual Discharge 1-20-95

Dear Dr. Pandey:

This is in follow up to the telephone notification made to Mr. Larry Simmons on January 20, 1995, of an unusual discharge experienced at North Anna Power Station.

The chemical addition building near the service water reservoir at North Anna Power Station houses a fiberglass tank in which a Calgon product designated as H-901-G is mixed with water to form hypobromous acid for use as a water disinfectant in the service water system. At about 1000 hours on January 20, a structural failure of the tank allowed water containing H-901-G to spill into the building sumps. The sump pumps did not activate and the water overflowed into a stormwater ditch to the discharge canal. The discharge entered the canal about 100 yards downstream of Outfall 004.

The discharge consisted of an estimated 3,000 gallons of water. The concentration of the H-901-G in the water released was 0.3 mg/l measured as Total Residual Chlorine (TRC). The water in the discharge canal was also sampled about one foot from the point of entry and the TRC results were "non-detectable" (less than 0.1 mg/l TRC). The discharge was immediately brought under control and did not continue beyond the initial volume lost.

Station personnel inspected the discharge canal in the vicinity of the discharge point and did not observe any evidence of environmental problems from the discharge nor was there any indication of the abnormal discharge. Due to the unstable nature of the hypobromous acid and the low concentration present, the material would have been quickly assimilated and neutralized in the receiving waters of the discharge canal.

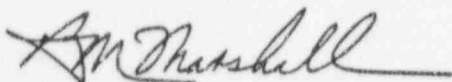
Janardan R. Pandey
January 27, 1995
Page 2

To provide perspective in evaluation of this event, we would like to point out that this unusual discharge entered the discharge canal in the same vicinity as the permitted effluent from the main sewage treatment plant. The STP effluent (Outfall 011) has a much greater flow rate than the volume of the accidental discharge and is permitted a TRC maximum of 4.0 mg/l; the normal range is 1.0 through 2.0 mg/l. Therefore, although not routed to a normal outfall point, the discharge from this event did not exceed any permitted effluent limitations. Also, this discharge was internal to the station's final discharge point, not directly to state waters.

The reason(s) for the equipment failures causing this event and the necessary corrective actions are under investigation. The sump pumps are now in full operation. The tank will remain isolated until any other necessary corrections to prevent recurrence of this event are completed.

Should you desire additional information or have any questions about this matter, please contact Daniel James at (804)273-2996.

Sincerely,



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

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

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Mr. R. D. McWhorter
NRC Senior Resident Inspector
North Anna Power Station

North Anna
COR 14/ Violations

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 8, 1995

R. Bradley Chewning, Director
Valley Regional Office
Department of Environmental Quality
P. O. Box 268
Bridgewater, VA 22812

RE: NORTH ANNA POWER STATION - VPDES PERMIT NO. VA0052451
SEWAGE TREATMENT PLANT UPSET REPORT, FEBRUARY 1, 1995

Dear Mr. Chewning:

We have had a series of problems at our sewage treatment plant at North Anna Power Station and the January DMRs will report several exceedances in BOD. Mr. Daniel James, Water Quality Department, discussed the situation with Dr. Janardan Pandey by telephone on February 1, 1995. We believe the incident which is described in this letter is properly characterized as a sewage treatment plant upset.

In consideration of the efforts by DEQ to achieve resolution of problems through mutual cooperation, I would hope you accept our corrective efforts as a positive approach and that you see fit to avoid issuance of a Notice of Violation. In order to demonstrate initial corrective action was successful, we decided to take samples over five consecutive days and incurred five BOD exceedances of our permit limit. We believe that our problem resolution was sound and proper at the time and that the station should not be penalized for results which can only be determined after the action taken.

On November 1, 1994 we started up the package plant at 005 due to a temporary increase in loading on the plant. The first samples at 005 were in specification, but high, until mid-January. An improperly diluted sample taken on January 12, 1995 yielded a >38.9 mg/l result. The plant was reseeded on January 19. Shortly thereafter, an electrical outage elsewhere on the site resulted in an outage of the STP fans for approximately 12-14 hours. It was decided that a series of samples were necessary to bring the monthly average within limits and assure that the reseeded was effective. Samples were taken on January 27, 28, 29, 30, 31. On February 1 we received results of 138 mg/l BOD for the first sample. The second sample yielded a BOD value of 114.5 mg/l.

R. Bradley Chewning, Director
February 8, 1995
Page 2

Recognizing that more serious problems existed, we brought in two consultants, Encil Webster of Vaden Co. and Craig Szymke of Calgon, to help evaluate the STP and determine the cause(s) of the treatment problems. The indications are that, after the interruption of aeration, the proportion of nitrifying bacteria in the microorganism population of the plant was too high and suppressed recovery of the beneficial microorganisms. The reseeding corrective action could not overcome the nitrifying bacteria population. The imbalance in the microorganism populations persisted and the recommended remedial action was to pump down the plant, with appropriate disposal via a septage contractor, and to reseed with active sludge from a properly functioning STP. This action was undertaken on February 2.

Additional remedial actions to provide a solution of STP performance difficulties, in the short term, will include contracting with Environmental Systems Services to have a consultant overseeing sewage treatment plant operations for at least two days per week. On the longer term, to alleviate the potential for future problems with the station's satellite package STPs, we are evaluating plans to reroute all of their influents to the main station STP. We believe that a major reason for the sensitivity of the package units to what should be minor disturbances is the small, weak influent the plants now receive due to the size and nature of the buildings being served by them.

The results of the other samples taken January 29, 30, and 31 were 140.75, 102.25, and 119.25 mg/l respectively, and will be included in the data reported on the Discharge Monitoring Report submitted for the month. During the problems with the operation of the STP station personnel have observed the vicinity of the effluent discharge pipe and have not detected any evidence of environmental problems from the discharges nor was there any indication of abnormal discharges at the discharge point. The discharge rate of Outfall 005 during this period has been relatively small and which would be quickly assimilated by the receiving waters at the subsurface outfall pipe. The 005 discharge is to a portion of Lake Anna near the station's intake structure and no entry into that section of the lake is permitted. No detrimental environmental damage nor human health impact would be expected from this discharge.

We believe that this incident is properly characterized as a sewage treatment plant upset. The appropriate actions have been taken in reaction to the problems experienced due to events beyond our immediate control, the DEQ was notified in accordance with the requirements of the permit and, although the numerical limitations of the permit have been exceeded, the nature and quantity of the

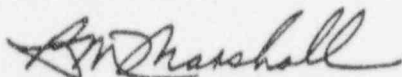
R. Bradley Chewning, Director
February 8, 1995
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resultant discharges would not be likely to cause any jeopardy to human health or the environment.

Since we are fully cognizant of the status and significance of the exceedances of the permit limitations, and there is no regulatory requirement that a Notice of Violation be generated in reaction to this event, we urge that you not respond to these temporary difficulties with the issuance of an NOV. Virginia Power makes every effort to maintain and operate its facilities well within the spirit, as well as the letter, of the law and regulations and we would appreciate the opportunity to work with the DEQ staff in the spirit of cooperative efforts to solve any problems that may arise.

We will keep your staff informed about the results of our efforts to remedy the performance problems with this facility, and about our future progress toward the final, long term solution. Meanwhile, should you desire additional information or have any questions about this matter, please contact me at (804)273-2990 or Daniel James at (804)273-2996.

Sincerely,



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

cc:

Peter W. Schmidt, Director
Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, VA 23240

Robert M. McEachern, Compliance Auditing
Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, VA 23240

R. Bradley Chewning, Director
February 8, 1995
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cc: Janardan R. Pandey
Valley Regional Office
Department of Environmental Quality
P. O. Box 268
Bridgewater, VA 22812

Steve Hetrick
Valley Regional Office
Department of Environmental Quality
P. O. Box 268
Bridgewater, VA 22812

U.S. Nuclear Regulatory Commission
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Mr. R. D. McWhorter
NRC Senior Resident Inspector
North Anna Power Station



COMMONWEALTH OF VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER DIVISION
 P. O. BOX 10009
 RICHMOND, VIRGINIA 23240-0009



NOTICE OF VIOLATION

NOTICE OF VIOLATION NO. 95-02-VRO-013 PERMIT / PC / OTHER ID NO. VA0052451
 FACILITY/COMPANY NAME VEPCO-OLD DOMINION ELEC. COOP-NORTH ANNA
 RESPONSIBLE OFFICIAL A.C. COOKE TEL. NO. 703-894-2856
 MAILING ADDRESS 5000 DOMINION BLVD., GLEN ALLEN, VA 23060

This Notice of Violation is not a Case Decision under Sec. 9-6.14:1, et seq, of the Code of Virginia, nor an adjudication, but advises the named facility that available evidence indicates that violations of the Code and/or Regulations have occurred, and that the Board may consider taking civil action under Secs. 62.1-44.15(8), 62.1-44.23, 62.1-44.32(a), 62.1-44.34:20, or other pertinent section of the Code of Virginia.

VIOLATION	DATE	EVIDENCE
PERMIT-BOD CONC.AV. 108.94/30	JAN 1995	DMR-DISCHARGE 005
PERMIT-BOD CONC.MAX. 126.25/45	JAN 1995	DMR-DISCHARGE 005

Please advise the Office below within 10 days if this information is incorrect, or if there is other information that the Board should consider. Each listed violation may constitute a separate offense for which penalties or other enforcement action could be sought. State Law requires, and it is in your interest, that you abate any violations as promptly as possible.

Valley Regional Office Phone: (703) 828-2595
 116 North Main Street Fax: (703) 828-4016
 P.O. Box 268
 Bridgewater, VA 22812

JRP

ENFORCEMENT REFERRAL This Notice of Violation has been referred to the Office of Enforcement and Compliance Auditing, Enforcement Section, to consider enforcement action because of the severity or continuing pattern of violations.

PREVIOUSLY REFERRED

[Signature] Signature of Person Served 2/20/95 Date
 Compliance Officer
 Mailed APR 14 1995
 John L. Hunt Printed Name and Title
 Compliance Inspector/Region Date Time