

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

UNITS 1 and 2

APPENDIX B

ENVIRONMENTAL PROTECTION PLAN

1987 ANNUAL REPORT

DOCKET NOS. 50-338 and 50-339

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Introduction

This 1987 Environmental Operating Report for the North Anna Power Station is submitted by the 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 and maintain consistency with other federal, state and local requirements; and to keep NRC informed of the environmental effects of facility construction and operation. During 1987, 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 NPDES permit number VA 0052451 issued by the Virginia State Water Control Board, 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)

Construction was completed in 1987 of a small (maximum capacity 992 kw) hydroelectric facility at the main dam of Lake Anna, the cooling reservoir for North Anna Power Station. This facility is presently in operation and being monitored for fish passage by Virginia Power in cooperation with the U.S. Fish and Wildlife Service.

A report of the results of this study will be submitted to the Fish and Wildlife Service this fall.

Herbicide Application: Corridor Rights-of-Way (Section 4.2.1)

The herbicide, Spike 5G, was used for brush control around Corten tower foundations on the North Anna-Louisa, North Anna-Morrisville, and North Anna-Ladysmith 500 kV lines during 1987. No herbicides were used for brush control on the North Anna-Midlothian 500 kV line during 1987.

Erosion Control Inspection (Section 4.2.2)

Erosion inspection on right of way was made on the North Anna-Midlothian, North Anna-Morrisville, North Anna-Louisa, and North Anna-Ladysmith 500 kV lines on July 23 and 24, 1987. Locations were recorded where erosion was taking place on the North Anna-Morrisville, North Anna-Midlothian, North Anna-Louisa 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 with additional straw bales being installed to prevent erosion.

Station Site

In 1987 an on-site erosion control inspection was performed at North Anna Power Station by the Surveillance and Test Engineering Department on October 16, 1987, through October 23, 1987, according to Periodic Test Procedure 1-PT-9.3. The frequency for performing 1-PT-9.3 was changed in 1987 from every four months to every twelve months. This change is supported by the 12/30/80 revision of the North Anna Power Station Environmental Protection Plan, which states that site erosion inspection shall be conducted at twelve month intervals as a minimum (Section 4.2.2). In addition, Regulatory Guide 1.127 recommends that erosion control inspections should be performed at one year intervals for the four years after the reservoir water attains normal level, and at longer intervals after the four years have elapsed.

During the erosion control inspection for 1-PI-9.3, minor erosion was noticed next to the security fence on the outside of the protected area on the service water reservoir side. Minor erosion also existed on the lakeside slope of Parking Lot C. Corrective action is not required for these areas at this time due to the minimal amount of erosion.

During the October erosion control inspection, vegetation was noted and then removed from the slope west of the Unit 1 and 2 Intake Structure. Repairs to Dike VI were made due to erosion located on the downstream side of Dike VI at the west end of the dike. These repairs were completed in December of 1987.

Erosion was found underneath the railroad track near the SCOB-N Building. Work will be performed in the near future to fill this eroded area.

Another severely eroded area on the slope near the service water valve house between the emergency dike and the service water dike was noted. The work to fill in this severely eroded area will be included in the Service Water Capital Improvement Project.

Noncompliances (Section 5.4.1)

There were no Environmental Protection Plan noncompliances reported during 1987.

Nonroutine Reports (Section 5.4.2)

Enclosed are copies of letters detailing the occurrence of NPDES noncompliances, 5 oil spills and 1 unusual discharge, which were filed during 1987 in which appropriate federal and state agencies were notified. None of the reported events resulted in a significant environmental impact causally related to station operation.

November 5, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William L. Kregloe
State Water Control Board
Valley Regional Office
116 N. Main Street
P.O. Box 268
Bridgewater, VA 22812

Dear Mr. Kregloe:

North Anna Power Station - Oil Spill

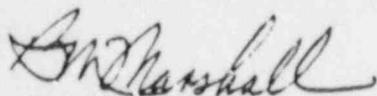
This letter provides confirmation of an earlier report of an oil spill at North Anna Power Station. The spill occurred on Saturday, October 31, 1987, and was reported to your office by telephone at approximately 1930.

At 1730 on October 31, station watch personnel noticed a sheen of oil of approximately 3 square feet on the surface of the discharge canal in the vicinity of Outfall 004. Spill response personnel were dispatched to clean up and oil adsorbent pads were used to remove the sheen from the water's surface.

An investigation into the cause of the spill could not identify the source as any of the turbine building sumps or any of the outside storm drain entrances. It was verified that no oil entered North Anna lake as none was found beyond the permanently deployed boom at the end of the discharge canal. No adverse environmental impact was observed.

Since the source of the oil could not be identified, no specific corrective action was specified. If you have any further questions regarding this incident, please don't hesitate to contact us.

Sincerely,



B. M. Marshall
Manager
Water Quality - CTA

GRK/ro

October 21, 1987

Mr. William L. Kregloe
State Water Control Board
Valley Regional Office
116 North Main Street
P. O. Box 268
Bridgewater, Virginia 22812

Dear Mr. Kregloe:

Re: North Anna Power Station - Discharge of Powdex Resin

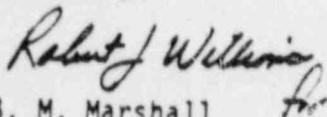
This letter confirms our earlier report of an unusual discharge at our North Anna Power Station. The discharge occurred and was reported to you on October 16, 1987.

On that day, a slurry of Powdex resin, a ground bead of polystyrene, and water used to polish condensate water, was being prepared in a holding tank prior to pumping into the polishing vessel. An outlet valve open to suction of the vessel pump failed closed causing the holding tank to fill and overflow. The overflow entered the floor sump which happened to be pumping to Outfall 004 at the time. Before sump pump operation could be halted, approximately 2 cu ft of resin slurry was discharged to the discharge canal. The resin is slightly heavier than water and no cleanup was effected.

Replacement parts have been ordered for the valve and repair will take place as soon as possible. Until that time alternate arrangements will be made that prevent the tank from overflowing.

Polystyrene resin is chemically inert and no environmental impact was observed or should be expected. If you have any questions or desire additional information, please contact this office.

Sincerely,



B. M. Marshall
Manager
Water Quality

cc: Dr. J. Nelson Grace, USNRC Docket No. 50-338/50-339
Mr. Harold Denton, USNRC Docket No. 50-338/50-339
Mr. J. L. Caldwell, USNRC Docket No. 50-338/50-339

October 1, 1987

Mr. William L. Kregloe
State Water Control Board
Valley Regional Office
116 North Main Street
P. O. Box 268
Bridgewater, Virginia 22812

Dear Mr. Kregloe:

North Anna Power Station - Oil Spill

This letter confirms the report of an oil spill made to Mr. Dave Chance in your office on September 26, 1987. The report was made at 2100 hours.

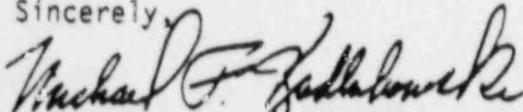
At 1830 hours on September 26 station personnel observed a sheen of oil approximately 2 ft x 20 ft on the surface of the discharge canal near the discharge of a storm drain close to Outfall 004. There is a permanently deployed boom at that location but the sheen was partially escaping the boom at one end where it had pulled away from its mooring. Absorbant pads were immediately placed in the breach and at the storm drain discharge.

The source of the oil was found to be a crane parked in the alleyway between the turbine building and containment. A small amount of oil was found to be dripping from the crane boom and entering the storm drain located in the alleyway. Absorbant pads were placed under the crane and the leak was stopped.

All visible oil on the water's surface was removed and inspection of the permanent boom at the end of the discharge canal indicated that no oil entered Lake Anna. No environmental impact resulting from this spill was observed.

Personnel have been cautioned to take more care when using heavy equipment near a storm drain. If you have any questions regarding this report, please contact my office.

Sincerely,



B. M. Marshall
Manager
Water Quality

cc: Dr. J. Nelson Grace, USNRC Docket No. 50-338/50-339
Mr. Harold Denton, USNRC Docket No. 50-338/50-339
Mr. James Caldwell, USNRC Docket No. 50-338/50-339

September 11, 1987

Mr. W. L. Kregloe
Virginia Water Control Board
Valley Regional Office
116 North Main Street
P.O. Box 268
Bridgewater, Virginia 22812

Dear Mr. Kregloe:

Re: NORTH ANNA POWER STATION - REPORT OF OIL SPILL

This letter confirms the earlier report of an oil spill that occurred at the new hydroelectric turbines down river from North Anna Power Station on September 8, 1987. The incident was reported to Mr. Larry Carpenter of your office at 1300 hours.

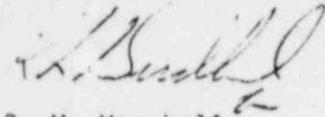
On the morning of September 8, 1987, station personnel observed a 10ft x 20ft oil sheen on the North Anna River below the dam. Heavy rains occurring at the time quickly dispersed the sheen so that no cleanup was possible. Unknown to personnel, some hydraulic fluid had apparently collected out of view under a housing on the turbine platform during a recent maintenance operation. The heavy rains unfortunately washed this hydraulic fluid into the river. No oil was deposited along shorelines, however, and no adverse environmental impact was observed.

Investigation of the incident revealed that design of the hydraulic system does not allow complete drainage of the system and that some fluid can accumulate on the platform. A way is being sought during this shakedown period for the new units to eliminate the problem or to be able to recover the oil so that a rainfall event does not precipitate another oil spill.

Mr. W. L. Kregloe
Page 2
September 11, 1987

If you have any questions or desire additional information concerning this incident please contact my office.

Sincerely,



B. M. Marshall
Manager
Water Quality - CTA

GRK:ro

cc: Dr. J. Nelson Grace, USNRC Docket No. 50-338/50-339
Mr. Harold Denton, USNRC Docket No. 50-338/50-339
Mr. M. W. Branch, USNRC Docket No. 50-338/50-339

bc: W. L. Stewart - OJRP/5
J. L. Wilson - OJRP/5
E. W. Harrell - North Anna
K. N. Kappatos - Old Dominion Elec. Coop.
R. O. Enfinger - North Anna *approved by phone 9/9/87*
J. L. Downs - North Anna
G. D. O'Connell - North Anna
G. L. Pannell - OJRP/5
J. W. Ogren - OJRP/5
E. C. Frese - OJRP/5
L. G. Miller - North Anna
P. G. Tyler - OJRP/10
M. F. Kadlubowski - IN/1SE
N. S. Kesler - IN/1SE
N. H. Wooding - IN/1SE
G. R. Knauer - IN/1SE *GRK*
1351GRK286

April 7, 1987

Mr. W. L. Kregloe
Valley Regional Office
Virginia Water Control Board
116 North Main Street
P. O. Box 268
Bridgewater, Virginia 22812

Dear Mr. Kregloe:

North Anna Power Station - Oil Spill

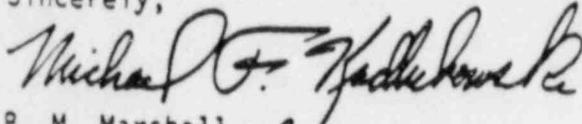
This letter confirms our previous telephone notification to the Virginia Water Control Board of a release of oil from North Anna Power Station to the plant's waste heat treatment facility.

At approximately 5:00 p.m. on April 4, 1987, unusually high condensate water flow left the station via the turbine sump system and entered the station's discharge canal. This flow caused the containment boom at the catch basin discharge to break loose and allowed a small amount of oil and previously placed oil soak pads to be released. Station personnel estimate the volume of oil to be one quart or less. The second containment boom across the end of the discharge canal collected some, and possibly all, of the released oil and pads.

As corrective action, station personnel removed the collected oil and pads contained by the second boom. The first boom was resecured. Station personnel reported no adverse environmental impact observed as a result of this oil spill including no observed damage to wetlands, shorelines, public or private water or wildlife.

If any questions arise as a result of this incident, please do not hesitate to contact us.

Sincerely,



B. M. Marshall
Manager
Water Quality

RJW/mhs

cc: Dr. J. Nelson Grace, USNRC, Docket No. 50-338/50-339
Mr. Harold R. Denton, USNRC, Docket No. 50-338/50-339
Mr. M. W. Branch, USNRC, Docket No. 50-338/50-339

February 27, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. W. L. Kregloe
Virginia Water Control Board
Valley Regional Office
116 North Main Street
P. O. Box 268
Bridgewater, Virginia 22812

Dear Mr. Kregloe:

North Anna Power Station - Report of Oil Spill

This letter confirms our earlier report of an oil spill that occurred at North Anna on February 22, 1987. The incident was reported to your office at 1628 hours.

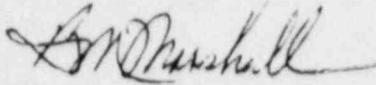
At 1505 hours, station personnel observed a sheen of oil approximately 20 x 40 feet on the surface of the discharge canal in the area of the oil water separator (Outfall 004). Oil sorbent pads were laid down immediately to absorb the oil and a permanently deployed boom in the area was repositioned to contain the sheen. None of the oil reached Lake Anna and no adverse environmental impact was observed.

A series of events apparently contributed to the oil spill that occurred. Water being decanted from a resin phase separator was inadvertently drawn down to a level that allowed some of the resin to drain to the turbine building sump. When Unit II turbine experienced leaks the sumps filled and had to be pumped to the oil water separator. The resin fines do not settle completely and they tend to adsorb oil. Thus when the oil water separator discharged, the fines carried over a small amount of oil.

In the future, a close accounting of the resin level in the separator will be kept so that the drawn down will not allow resin to be decanted.

If you have any questions or desire additional information, please contact this office.

Sincerely,



B. M. Marshall
Manager
Water Quality

cc: Dr. J. Nelson Grace, USNRC Docket No. 50-338/50-339
Mr. Harold Denton, USNRC Docket No. 50-338/50-339
Mr. M. W. Branch, USNRC Docket No. 50-338/50-339

bc: Mr. W. L. Stewart
Mr. J. L. Wilson
Mr. E. W. Harrell
Mr. K. N. Kappatos
Mr. R. O. Enfinger
Mr. H. B. Branch
Mr. G. L. Pannell ✓
Mr. J. W. Ogren
Mr. E. C. Frese
Mr. L. G. Miller
Mr. M. F. Kadlubowski
Ms. G. R. Knauer
File ENV 43

MFK
2-27-87

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VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 26, 1988

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 88-203
NAPS/JHL
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

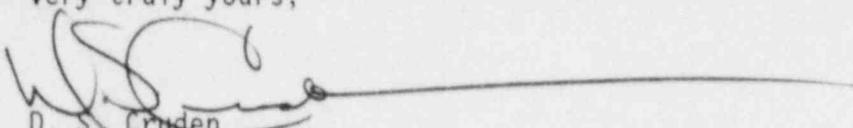
Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
1987 ENVIRONMENTAL OPERATING REPORT

Pursuant to Section 5.4 of the Environmental Protection Plan, the Virginia Electric and Power Company submits the 1987 Environmental Operating Report for North Anna Units 1 and 2.

If you have any questions, please do not hesitate to call.

Very truly yours,


D. S. Cruden
Vice President - Nuclear

Attachment

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

Mr. J. L. Caldwell
NRC Senior Resident Inspector
North Anna Power Station

IE25
1/1