

December 21, 1984

DCR 076

Docket Nos. 50-338  
and 50-339

Mr. W. L. Stewart  
Vice President - Nuclear Operations  
Virginia Electric and Power Company  
Post Office Box 26666  
Richmond, Virginia 23261

DISTRIBUTION:

|             |                         |
|-------------|-------------------------|
| Docket File | PMKretutzer-3           |
| NRC PDR     | LEngle TAC#48870, 48869 |
| L PDR       | Gray File 8             |
| SECY        | HDenton                 |
| ORB#3 Rdg   | RDiggs                  |
| DEisenhut   | OPA, CMiles             |
| OELD        | ACRS-10                 |
| LJHarmon    | DBrinkman               |
| EJordan     | WJones                  |
| PMcKee      | TBarnhart-8             |
| LTremper    | JPartlow                |

SEE TECH SPECS  
CHANGE

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment Nos. 61 and 45 to Facility Operating Licenses No. NPF-4 and No. NPF-7 for the North Anna Power Station, Units No. 1 and No. 2 (NA-1&2). The amendments revise the Technical Specifications (TS) in response to your letter dated August 20, 1982 as supplemented by letters dated October 21, 1982, June 16, July 25, September 13, October 28, November 10, December 6, 1983, and April 10, May 8, and May 18, 1984.

The amendments revise the capacity of the Spent Fuel Storage Pool at NA-1&2. Specifically, the NA-1&2 Technical Specification 5.6.1 identifies a new nominal center-to-center spacing between fuel assemblies of 10 and 9/16 inches. In addition, the NA-1&2 TS 5.6.3 is revised to modify the spent fuel storage capacity to 1737 fuel assemblies. Finally, the amendments revise the NA-1&2 TS 5.6.1 and 5.6.3 to be identical with the NRC approved TS 5.6.1 and 5.6.3 in order to provide consistency between the NA-1&2 TS.

A copy of the Safety Evaluation and Environmental Assessment issued July 2, 1984 and applicable to the revised spent fuel storage capacity for 1737 fuel assemblies is also enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

15  
Leon B. Engle, Project Manager  
Operating Reactors Branch #3  
Division of Licensing

Enclosure:

1. Amendment No. 61 to NPF-4
2. Amendment No. 45 to NPF-7
3. Safety Evaluation
4. Environmental Assessment

cc w/enclosures:  
See next page

ORB#3:DL  
PMKretutzer  
11/27/84

ORB#3:DL  
LEngle  
27/84

ORB#3:DL  
JRMiller  
11/27/84

OELD  
12/11/84

AD:DL  
GCLatnas  
12/20/84

8501070270 841221  
PDR ADCK 05000338  
PDR

Virginia Electric and Power Company

cc:

Richard M. Foster, Esquire  
Musick, Williamson, Schwartz,  
Leavenworth & Cope, P.C.  
P. O. Box 4579  
Boulder, Colorado 80306

Michael W. Maupin, Esquire  
Hunton, Williams, Gay and Gibson  
P. O. Box 1535  
Richmond, Virginia 23212

Mr. Paul W. Purdom  
Environmental Studies Institute  
Drexel University  
32nd and Chestnut Streets  
Philadelphia, Pennsylvania 19104

Atomic Safety and Licensing Appeal  
Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Ellyn R. Weiss, Esquire  
Sheldon, Harman, Roisman and Weiss  
1725 I Street, N.W., Suite 506  
Washington, DC 20006

Mr. E. W. Harrell  
P. O. Box 402  
Mineral, Virginia 23117

Mr. Anthony Gambardella  
Office of the Attorney General  
11 South 12th Street - Room 308  
Richmond, Virginia 23219

Resident Inspector/North Anna  
c/o U.S. NRC  
Senior Resident Inspector  
Route 2, Box 78  
Mineral, Virginia 23117

Mr. J. H. Ferguson  
Executive Vice President - Power  
Virginia Electric and Power Co.  
Post Office Box 26666  
Richmond, Virginia 23261

Mrs. Margaret Dietrich  
Route 2, Box 568  
Gordonsville, Virginia 22042

Mr. W. T. Lough  
Virginia Corporation Commission  
Division of Energy Regulation  
P. O. Box 1197  
Richmond, Virginia 23209

U.S. Environmental Protection Agency  
Region III Office  
ATTN: Regional Radiation  
Representative  
Curtis Building  
6th and Walnut Streets  
Philadelphia, Pennsylvania 19106

Regional Administrator  
Nuclear Regulatory Commission  
Region II  
Office of Executive Director  
for Operations  
101 Marietta Street N.W., Suite 2900  
Atlanta, Georgia 30323

Old Dominion Electric Cooperative  
c/o Executive Vice President  
Innsbrook Corporate Center  
4222 Cox Road, Suite 102  
Glen Allen, Virginia 23060

Mr. Richard C. Klepper  
Board of Supervisors  
Louisa County Courthouse  
P. O. Box 27  
Louisa, Virginia 23093



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

DOCKET NO. 50-338

NORTH ANNA POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 61  
License No. NPF-4

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated August 20, 1982 as supplemented by letters dated October 21, 1982, June 16, July 25, September 13, October 28, November 10, December 6, 1983, and April 10, May 8, and May 18, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

8501070275 841221  
PDR ADDCK 05000338  
P PDR

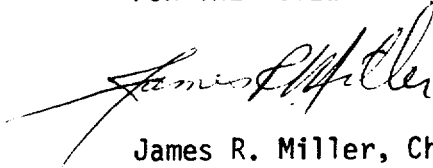
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D.(2) of Facility Operating License No. NPF-4 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 61, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James R. Miller, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 21, 1984

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 61 TO FACILITY OPERATING LICENSE NO. NPF-4

DOCKET NO. 50-338

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Page

5-5

5-6

## DESIGN FEATURES

- a. In accordance with the code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 680°F.

## VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is  $9957 \pm 10$  cubic feet at a nominal  $T_{avg}$  of 525°F.

## 5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

## 5.6 FUEL STORAGE

### CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. A  $k_{eff}$  equivalent to less than or equal to 0.95 when flooded with unborated water, which includes a conservative allowance of 3.4% delta  $k/k$  for uncertainties.
- b. A nominal 10 9/16 inch center-to-center distance between fuel assemblies placed in the storage racks.

5.6.1.2 The new fuel pit storage racks are designed and shall be maintained with a nominal 21 inch center-to-center distance between new fuel assemblies such that, on a best estimate basis,  $k_{eff}$  will not exceed .98, with fuel of the highest anticipated enrichment in place, when aqueous foam moderation is assumed.

5.6.1.3 If new fuel for the first core loading is stored dry in the spent fuel storage racks, the center-to-center distance between the new fuel assemblies will be administratively limited to 28 inches and the  $k_{eff}$  shall not exceed 0.98 when aqueous foam moderation is assumed.

## DESIGN FEATURES

### DRAINAGE

5.6.2 The spent fuel pit is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 288.83 feet. Mean Sea Level, USGS datum.

### CAPACITY

5.6.3 The fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 1737 fuel assemblies.

### 5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 45  
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated August 20, 1982 as supplemented by letters dated October 21, 1982, June 16, July 25, September 13, October 28, November 10, December 6, 1983, and April 10, May 8, and May 18, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.



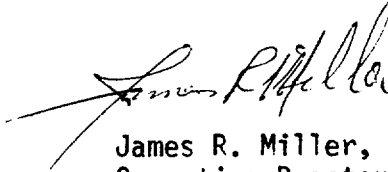
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-7 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 45, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James R. Miller, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 21, 1984

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 45 TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page as indicated. The revised page is identified by amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

Page

5-5

## DESIGN FEATURES

---

### 5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

### 5.6 FUEL STORAGE

#### CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. A  $K_{eff}$  equivalent to less than or equal to 0.95 when flooded with unborated water, which includes a conservative allowance of 3.4% delta  $k/k$  for uncertainties.
- b. A nominal 10 9/16 inch center-to-center distance between fuel assemblies placed in the storage racks.

5.6.1.2 The new fuel pit storage racks are designed and shall be maintained with a nominal 21 inch center-to-center distance between new fuel assemblies such that, on a best estimate basis,  $k_{eff}$  will not exceed .98, with fuel of the highest anticipated enrichment in place, when aqueous foam moderation is assumed.

5.6.1.3 If new fuel for the first core loading is stored dry in the spent fuel storage racks, the center-to-center distance between the new fuel assemblies will be administratively limited to 28 inches and the  $k_{eff}$  shall not exceed 0.98 when aqueous foam moderation is assumed.

#### DRAINAGE

5.6.2 The spent fuel pit is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 288.83 feet Mean Sea Level, USGS datum.

#### CAPACITY

5.6.3 The fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 1737 fuel assemblies.

## DESIGN FEATURES

---

### 5.7 COMPONENT CYCLIC or TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.