

October 3, 1990

Docket Nos. 50-338
and 50-339

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: NORTH ANNA UNITS 1 AND 2 - CORRECTIONS TO AMENDMENT NOS.
140 AND 123 (TAC NOS. 77066 AND 77067)

On September 13, 1990, the staff issued Amendment Nos. 140 and 123 for the North Anna Power Station, Units 1 and 2 (NA-1&2). The amendments added an NRC standard fire protection license condition to the operating licenses and relocated fire protection requirements from the TS to the NA-1&2 Updated Final Safety Analysis Report. The staff has subsequently been informed of errors in the amendments as follows:

1. The license condition which was added to the NA-1 was incorrectly numbered as 2.D.(3)t. The correct number is 2.D.(3)u. A corrected amendment page is enclosed.
2. Pages XIV, 6-7, 6-8 and 6-13 did not contain changes from previously issued amendments. These corrected pages, as well as the overleaf pages, are enclosed.

We apologize for any inconvenience these errors may have caused.

Sincerely,

Original signed by

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/enclosures:
See next page

| | | | | | | |
|------|-------------|-------------|--------------|---|---|---|
| OFC | : PDII-2/LA | : PDII-2/PM | : PDII-2/DIR | : | : | : |
| NAME | : D. Miller | : L. Engle | : H. Berkow | : | : | : |
| DATE | : 10/3/90 | : 10/3/90 | : 10/3/90 | : | : | : |

OFFICIAL RECORD COPY
Document Name: TAC NOS. 77066 & 77067 N. ANNA

9010230287 901003
PDR ADOCK 05000338
P PNU

2. Accordingly, license condition 2.D.(3)u. is hereby added to Facility Operating License No. NPF-4 to read as follows:

u. Fire Protection

VEPCO shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated February 1979 subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

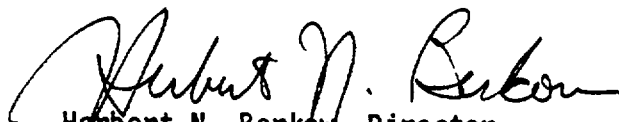
3. In addition, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D.(2) of Facility Operating License No. NPF-4 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 140, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

4. This license amendment is effective as of the date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 13, 1990

CORRECTION TO AMENDMENT NOS. 140 AND 123 FOR NORTH ANNA UNITS 1 AND 2

DISTRIBUTION

Docket File
NRC & Local PDRs
PDII-2 r/f
S. Varga
G. Lainas
D. Miller
L. Engle
OGC (for info only)
D. Hagan MNBB-3302
E. Jordan MNBB-3302
G. Hill (8 cys)
Wanda J. Jones MNBB-7103
J. Calvo 11/F/22
ACRS (10)
GPA/PA
OC/LFMB
H. Berkow

Mr. W. L. Stewart
Virginia Electric & Power Company

North Anna Power Station
Units 1 and 2

cc:

Mr. William C. Porter, Jr.
County Administrator
Louisa County
P.O. Box 160
Louisa, Virginia 23093

C. M. G. Buttery, M.D., M.P.H.
Department of Health
109 Governor Street
Richmond, Virginia 23219

Michael W. Maupin, Esq.
Hunton and Williams
P. O. Box 1535
Richmond, Virginia 23212

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

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

Mr. G. E. Kane, Manager
North Anna Power Station
P.O. Box 402
Mineral, Virginia 23117

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

Mr. J. P. O'Hanlon
Vice President - Nuclear Services
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. E. Wayne Harrell
Vice President - Nuclear Operations
Virginia Electric and Power Co.
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. R. F. Saunders
Manager - Nuclear Licensing
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. Patrick A. O'Hare
Office of the Attorney General
Supreme Court Building
101 North 8th Street
Richmond, Virginia 23219

Senior Resident Inspector
North Anna Power Station
U.S. Nuclear Regulatory Commission
Route 2, Box 78
Mineral, Virginia 23117

INDEX

BASES

SECTION

PAGE

3/4.7 PLANT SYSTEMS

| | | |
|----------|--|-----------|
| 3/4.7.1 | TURBINE CYCLE..... | B 3/4 7-1 |
| 3/4.7.2 | STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION..... | B 3/4 7-4 |
| 3/4.7.3 | COMPONENT COOLING WATER SUBSYSTEM..... | B 3/4 7-4 |
| 3/4.7.4 | SERVICE WATER SYSTEM..... | B 3/4 7-4 |
| 3/4.7.5 | ULTIMATE HEAT SINK..... | B 3/4 7-5 |
| 3/4.7.6 | FLOOD PROTECTION..... | B 3/4 7-5 |
| 3/4.7.7 | CONTROL ROOM EMERGENCY HABITABILITY..... | B 3/4 7-5 |
| 3/4.7.8 | SAFEGUARDS AREA VENTILATION SYSTEM..... | B 3/4 7-5 |
| 3/4.7.9 | RESIDUAL HEAT REMOVAL SYSTEMS..... | B 3/4 7-6 |
| 3/4.7.10 | SNUBBERS..... | B 3/4 7-6 |
| 3/4.7.11 | SEALED SOURCE CONTAMINATION..... | B 3/4 7-7 |
| 3/4.7.12 | SETTLEMENT OF CLASS 1 STRUCTURES..... | B 3/4 7-7 |
| 3/4.7.13 | GROUNDWATER LEVEL - SERVICE WATER RESERVOIR..... | B 3/4 7-9 |

3/4.8 ELECTRICAL POWER SYSTEMS

| | | |
|---------------------|--|-----------|
| 3/4.8.1 and 3/4.8.2 | A.C. AND D.C. POWER SOURCES AND DISTRIBUTION..... | B 3/4 8-1 |
|---------------------|--|-----------|

9010230290 901003
PDR ADDCK 05000338
P PNU

INDEX

BASES

| <u>SECTION</u> | | <u>PAGE</u> |
|-----------------------|---|-------------|
| <u>3/4.9</u> | <u>REFUELING OPERATIONS</u> | |
| 3/4.9.1 | BORON CONCENTRATION.....B | 3/4 9-1 |
| 3/4.9.2 | INSTRUMENTATION.....B | 3/4 9-1 |
| 3/4.9.3 | DECAY TIME.....B | 3/4 9-1 |
| 3/4.9.4 | CONTAINMENT BUILDING PENETRATIONS.....B | 3/4 9-1 |
| 3/4.9.5 | COMMUNICATIONS.....B | 3/4 9-1 |
| 3/4.9.6 | MANIPULATOR CRANE OPERABILITY.....B | 3/4 9-2 |
| 3/4.9.7 | CRANE TRAVEL - SPENT FUEL PIT.....B | 3/4 9-2 |
| 3/4.9.8 | RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION.....B | 3/4 9-2 |
| 3/4.9.9 | CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM.....B | 3/4 9-2 |
| 3/4.9.10 and 3/4.9.11 | WATER LEVEL - REACTOR VESSEL AND SPENT FUEL PIT.....B | 3/4 9-3 |
| 3/4.9.12 | FUEL BUILDING VENTILATION SYSTEM.....B | 3/4 9-3 |
| <u>3/4.10</u> | <u>SPECIAL TEST EXCEPTIONS</u> | |
| 3/4.10.1 | SHUTDOWN MARGIN.....B | 3/4 10-1 |
| 3/4.10.2 | GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS.....B | 3/4 10-1 |
| 3/4.10.3 | PHYSICS TESTS.....B | 3/4 10-1 |
| 3/4.10.4 | REACTOR COOLANT LOOPS.....B | 3/4 10-1 |

|

INDEX

BASES

| <u>SECTION</u> | | <u>PAGE</u> |
|-----------------------|---|-------------|
| <u>3/4.9</u> | <u>REFUELING OPERATIONS</u> | |
| 3/4.9.1 | BORON CONCENTRATION.....B | 3/4 9-1 |
| 3/4.9.2 | INSTRUMENTATION.....B | 3/4 9-1 |
| 3/4.9.3 | DECAY TIME.....B | 3/4 9-1 |
| 3/4.9.4 | CONTAINMENT BUILDING PENETRATIONS.....B | 3/4 9-1 |
| 3/4.9.5 | COMMUNICATIONS.....B | 3/4 9-1 |
| 3/4.9.6 | MANIPULATOR CRANE OPERABILITY.....B | 3/4 9-2 |
| 3/4.9.7 | CRANE TRAVEL - SPENT FUEL PIT.....B | 3/4 9-2 |
| 3/4.9.8 | RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION.....B | 3/4 9-2 |
| 3/4.9.9 | CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM.....B | 3/4 9-2 |
| 3/4.9.10 and 3/4.9.11 | WATER LEVEL - REACTOR VESSEL AND SPENT FUEL PIT.....B | 3/4 9-3 |
| 3/4.9.12 | FUEL BUILDING VENTILATION SYSTEM.....B | 3/4 9-3 |
| <u>3/4.10</u> | <u>SPECIAL TEST EXCEPTIONS</u> | |
| 3/4.10.1 | SHUTDOWN MARGIN.....B | 3/4 10-1 |
| 3/4.10.2 | GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS.....B | 3/4 10-1 |
| 3/4.10.3 | PHYSICS TESTS.....B | 3/4 10-1 |
| 3/4.10.4 | REACTOR COOLANT LOOPS.....B | 3/4 10-1 |

ADMINISTRATIVE CONTROLS

- k. Review of every unplanned onsite release of radioactive material to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Vice President-Nuclear Operations and the Management Safety Review Committee.
- l. Review changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.
- m. Review of the Fire Protection Program and implementing procedures and shall submit recommended changes to the Station Manager.

AUTHORITY

6.5.1.7 The SNSOC shall:

- a. Provide written approval or disapproval of items considered under 6.5.1.6(a) through (c) above. SNSOC approval shall be certified in writing by an Assistant Station Manager.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Vice President-Nuclear Operations and the Management Safety Review Committee (MSRC) of disagreement between the SNSOC and the Station Manager; however, the Station Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The SNSOC shall maintain written minutes of each meeting and copies shall be provided to the Station Manager, the Vice President-Nuclear Operations and the MSRC.

6.5.2 MANAGEMENT SAFETY REVIEW COMMITTEE (MSRC)

FUNCTION

6.5.2.1 The MSRC shall function to provide independent review of designated activities in the areas of:

- a. Station Operations
- b. Maintenance
- c. Reactivity Management
- d. Engineering
- e. Chemistry and Radiochemistry
- f. Radiological Safety
- g. Quality Assurance Practices
- h. Emergency Preparedness

ADMINISTRATIVE CONTROLS

MEETING FREQUENCY

6.5.1.4 The SNSOC shall meet at least once per calendar month and as convened by the SNSOC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the SNSOC consists of the Chairman or Vice-Chairman and two members including alternates.

RESPONSIBILITIES

6.5.1.6 The SNSOC shall be responsible for:

- a. Review of 1) all procedures required by Specifications 6.8.1, 6.8.2 and 6.8.3 and changes thereto, 2) all programs required by Specification 6.8.4 and changes thereto, 3) any other proposed procedures or changes thereto as determined by the Station Manager to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- d. Review of all proposed changes to Appendix "A" Technical Specifications and Appendix "B" Environmental Protection Plan. Recommended changes shall be submitted to the Station Manager.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and the MSRC.
- f. Review of all REPORTABLE EVENTS and Special Reports.
- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Station Nuclear Safety and Operating Committee or Station Manager.
- i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Station Manager.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Station Manager.

ADMINISTRATIVE CONTROLS

MEETING FREQUENCY

6.5.1.4 The SNSOC shall meet at least once per calendar month and as convened by the SNSOC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the SNSOC consists of the Chairman or Vice-Chairman and two members including alternates.

RESPONSIBILITIES

6.5.1.6 The SNSOC shall be responsible for:

- a. Review of 1) all procedures required by Specifications 6.8.1, 6.8.2 and 6.8.3 and changes thereto, 2) all programs required by Specification 6.8.4 and changes thereto, 3) any other proposed procedures or changes thereto as determined by the Station Manager to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- d. Review of all proposed changes to Appendix "A" Technical Specifications and Appendix "B" Environmental Protection Plan. Recommended changes shall be submitted to the Station Manager.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and the MSRC.
- f. Review of all REPORTABLE EVENTS and Special Reports.
- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Station Nuclear Safety and Operating Committee or Station Manager.
- i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Station Manager.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Station Manager.

ADMINISTRATIVE CONTROLS

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the SNSOC and the results of this review shall be submitted to the Vice President-Nuclear Operations and the MSRC.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The facility shall be placed in at least HOT STANDBY within one hour.
- b. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within one hour. The Vice President-Nuclear Operations and the MSRC shall be notified within 24 hours.
- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the SNSOC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the Vice President-Nuclear Operations and the MSRC within 14 days of the violation.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
- b. Refueling operations.

ADMINISTRATIVE CONTROLS

- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.
- i. Quality Assurance Program for effluent and environmental monitoring, using the guidance in Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975.

6.8.2 Each procedure of 6.8.1 above, except 6.8.1.d, 6.8.1.e, and 6.8.1.f and changes thereto, shall be reviewed and approved by the SNSOC prior to implementation and reviewed periodically as set forth in administrative procedures. Procedure of 6.8.1.d, 6.8.1.e, and 6.8.1.f shall be reviewed and approved as per 6.5.1.6.i, 6.5.1.6.j, and 6.5.1.6.m. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant supervisory staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed, and approved by the SNSOC within 14 days of implementation. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.4 The following programs shall be established, implemented, and maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the recirculation spray, safety injection, chemical and volume control, gas stripper, and hydrogen recombiners. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

ADMINISTRATIVE CONTROLS

- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.
- i. Quality Assurance Program for effluent and environmental monitoring, using the guidance in Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975.

6.8.2 Each procedure of 6.8.1 above, except 6.8.1.d, 6.8.1.e, and 6.8.1.f and changes thereto, shall be reviewed and approved by the SNSOC prior to implementation and reviewed periodically as set forth in administrative procedures. Procedure of 6.8.1.d, 6.8.1.e, and 6.8.1.f shall be reviewed and approved as per 6.5.1.6.i, 6.5.1.6.j, and 6.5.1.6.m. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant supervisory staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed, and approved by the SNSOC within 14 days of implementation. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.4 The following programs shall be established, implemented, and maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the recirculation spray, safety injection, chemical and volume control, gas stripper, and hydrogen recombiners. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at refueling cycle intervals or less.