

February 20, 199

Docket Nos. 50-338
and 50-339

DISTRIBUTION
See attached sheet

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 - ISSUANCE OF AMENDMENTS RE:
CONTAINMENT ISOLATION VALVES (TAC NOS. 73790 AND 73791)

The Commission has issued the enclosed Amendment Nos. 143 and 126 to Facility Operating License Nos. NPF-4 and 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 February 23, 1989, as supplemented December 31, 1990.

The amendments add valves to the NA-1&2 TS which do not need to be vented to the containment atmosphere nor drained of water during Type A (containment integrated leak rate) tests and the leakage rates measured by Type C tests on these valves need not be added to the Type A test results. Type C testing will continue and the measured leakage rates will be added to the sum of Type B and Type C tests in the usual manner. The amendments also identify valves that are associated with "water-filled" penetrations for which a Type C test penalty will not be added to the Type A tests results and add containment valves not previously listed to Table 3.6-1 for NA-1&2 and delete a valve incorrectly listed in TS Table 3.6-1 for NA-1.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

(Original Signed By)

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

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PDR ADOCK 0500033B
PDR

Enclosures:

1. Amendment No. 143 to NPF-4
2. Amendment No. 126 to NPF-7
3. Safety Evaluation

cc w/enclosures:
See next page

OFFC :	LA:PD22	: PM:PD22	: D:PD22	: OGC	:	:	:
NAME :	DR Miller	: LEngle	: HBerndt	: E HOLLER	:	:	:
DATE :	2/5/91	: 2/5/91	: 2/5/91	: 2/18/91	:	:	:

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Document Name: NA 73790 & 73791

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DATED: February 20, 1991

AMENDMENT NO. 143 TO FACILITY OPERATING LICENSE NO. NPF-4-NORTH ANNA UNIT 1
AMENDMENT NO. 126 TO FACILITY OPERATING LICENSE NO. NPF-7-NORTH ANNA UNIT 2

Docket File

NRC & Local PDRs

PDII-2 Reading

S. Varga, 14/E/4

G. Lainas, 14/H/3

H. Berkow

D. Miller

L. Engle

OGC-WF

D. Hagan, 3302 MNBB

E. Jordan, 3302 MNBB

B. Grimes, 9/A/2

G. Hill (8), P-137

Wanda Jones, P-130A

J. Calvo, 11/F/23

J. Pulsipher

ACRS (10)

GPA/PA

OC/LFMB

PD Plant-specific file [Gray File]

M. Sinkule, R-II

Others as required

cc: Plant Service list



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. 143
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 et al., (the licensee) dated February 23, 1989, as supplemented December 31, 1990, 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.

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PDR ADDCK 05000338
P PDR

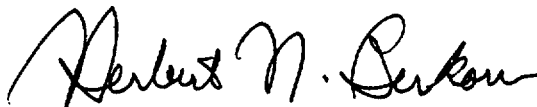
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D.(2) of Facility Operating License No. NPF-4 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 143, 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 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: February 20, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 143

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.

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NORTH ANNA-UNIT 1

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Amendment No. 143,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
18. TV-RM100A	Air Radiation Monitor Return	60
19. TV-RM100D [#]	Air Radiation Monitor Return	60
20. TV-RM100B	Air Radiation Monitor Supply	60
21. TV-RM100C	Air Radiation Monitor Supply	60
22. TV-1519A	Primary Grade Water to Pressurizer Relief Tank	10
23. TV-VG100A	Primary Vent Header	60
24. TV-VG100B	Primary Vent Header	60
25. TV-SI101	Safety Injection Accumulators to Waste Gas Charcoal Filters	60
26. HCV-1936	Safety Injection Accumulators to Waste Gas Charcoal Filters	10
27. TV-SS104A	Pressurizer Relief Tank Sample	60
28. TV-SS104B	Pressurizer Relief Tank Sample	60
29. TV-SS100A	Pressurizer Liquid Space Sample	60
30. TV-SS100B	Pressurizer Liquid Space Sample	60
31. TV-SS106A	Primary Coolant Hot Leg Sample	60
32. TV-SS106B	Primary Coolant Hot Leg Sample	60
33. TV-SS102A	Primary Coolant Cold Leg Sample	60
34. TV-SS102B	Primary Coolant Cold Leg Sample	60

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
35. TV-LM100A	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
36. TV-LM100B	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
37. TV-LM100C	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
38. TV-LM100D	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
39. TV-LM100E	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
40. TV-LM100F	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
41. TV-LM100G	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
42. TV-LM100H	Reactor Containment Leakage Monitoring Lines to Open Pressure Taps	60
43. TV-SS101A	Pressurizer Vapor Space Sample	60
44. TV-SS101B	Pressurizer Vapor Space Sample	60
45. TV-SV102-1 [#]	Condenser Air Ejector Vent	60
46. TV-SV103	Condenser Air Ejector Vent	60
47. TV-CV150A	Containment Vacuum Pump Suction	60
48. TV-CV150B	Containment Vacuum Pump Suction	60
49. TV-CV150C	Containment Vacuum Pump Suction	60

NORTH ANNA - UNIT 1

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Amendment No. 48, 44,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
50. TV-CV150D	Containment Vacuum Pump Suction	60
51. TV-SS103A	Residual Heat Removal System Sample Lines	60
52. TV-SS103B	Residual Heat Removal System Sample Lines	60
53. TV-LM101A	Reactor Containment Leakage Monitoring Lines to Reference System	60
54. TV-LM101B	Reactor Containment Leakage Monitoring Lines to Reference System	60
55. TV-LM101C	Reactor Containment Leakage Monitoring Lines to Reference System	60
56. TV-LM101D	Reactor Containment Leakage Monitoring Lines to Reference System	60
57. TV-1859	Safety Injection Test Line	60
58. TV-1842	Safety Injection Test Line	60
59. TV-SS112A	Steam Generator Surface Sample	60
60. TV-SS112B	Steam Generator Surface Sample	60
61. TV-MS109#	Main Steam Drains to Condenser	60
62. TV-MS110#	Main Steam to Blowdown	60
63. TV-SV102-2#	Condenser Air Ejector Vent	60
64. FCV-AS100A#	Condenser Air Ejector Steam Supply	60
65. FCV-AS100B#	Condenser Air Ejector Steam Supply	60
66. TV-DA103A	Post Accident Sample System Containment Return Line	60
67. TV-DA103B	Post Accident Sample System Containment Return Line	60

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
B. PHASE "B" ISOLATION		
1. TV-CC103A	Component Cooling Water From RHR System and Excess Letdown Heat Exchanger	60
2. TV-CC103B	Component Cooling Water From RHR System and Excess Letdown Heat Exchanger	60
3. TV-CC101A	Reactor Coolant Pump Thermal Barrier Cooling Water Return	60
4. TV-CC101B	Reactor Coolant Pump Thermal Barrier Cooling Water Return	60
5. TV-CC100A	Component Cooling Water From Containment Air Recirculation Coils	60
6. TV-CC100B	Component Cooling Water From Containment Air Recirculation Coils	60
7. TV-CC100C	Component Cooling Water From Containment Air Recirculation Coils	60
8. TV-CC105A	Component Cooling Water From Containment Air Recirculation Coils	60
9. TV-CC105B	Component Cooling Water From Containment Air Recirculation Coils	60
10. TV-CC105C	Component Cooling Water From Containment Air Recirculation Coils	60
11. TV-CC104A	Reactor Coolant Pumps, Cooling Water In	60
12. TV-CC104B	Reactor Coolant Pumps, Cooling Water In	60
13. TV-CC104C	Reactor Soolant Pumps, Cooling Water In	60

NORTH ANNA - UNIT 1

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Amendment No. 43,

NORTH ANNA - UNIT 1

3/4 6-22

Amendment No. 16, 143,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
14. TV-CC102A	Reactor Coolant Pumps, Bearing and Shroud, Cooling Water Out	60
15. TV-CC102B	Reactor Coolant Pumps, Bearing and Shroud, Cooling Water Out	60
16. TV-CC102C	Reactor Coolant Pumps, Bearing and Shroud, Cooling Water Out	60
17. TV-CC102D	Reactor Coolant Pumps, Bearing and Shroud, Cooling Water Out	60
18. TV-CC102E	Reactor Coolant Pumps, Cooling Water Out	60
19. TV-CC102F	Reactor Coolant Pumps, Cooling Water Out	60
20. TV-BD100A	Steam Generator Blowdown	60
21. TV-BD100B	Steam Generator Blowdown	60
22. TV-BD100C	Steam Generator Blowdown	60
23. TV-BD100D	Steam Generator Blowdown	60
24. TV-BD100E	Steam Generator Blowdown	60
25. TV-BD100F	Steam Generator Blowdown	60
26. TV-IA102B	Instrument Air to Reactor Containment	60
27. TV-IA102A [#]	Instrument Air to Reactor Containment	60

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TABLE 3.6-1 (Cont.)

NORTH ANNA - UNIT 1	VALVE NUMBER	FUNCTION	ISOLATION TIME (SEC.)
3/4 6-25	17. 1-CV-4*	Air Ejector Suction	NA
	18. 1-RC-176*	Dead Weight Pressure Calibrator	NA
	19. 1-RC-178*	Dead Weight Pressure Calibrator	NA
	20. 1-RP-26*	Refueling Purification Inlet	NA
	21. 1-RP-28*	Refueling Purification Inlet	NA
	22. 1-RP-6*	Refueling Purification Inlet	NA
	23. 1-RP-8*	Refueling Purification Inlet	NA
	24. 1-WT-354#*	Chemical Feed Lines	NA
	25. 1-WT-357#*	Chemical Feed Lines	NA
	26. 1-WT-351#*	Chemical Feed Lines	NA
	27. 1-FP-274*	Fire Protection Hose Standpipe	NA
	28. 1-WT-465*	Steam Generator Wet Layup	NA
	29. 1-WT-468*	Steam Generator Wet Layup	NA
	30. 1-WT-488*	Steam Generator Wet Layup	NA
	31. 1-WT-491*	Steam Generator Wet Layup	NA
	32. 1-WT-511*	Steam Generator Wet Layup	NA
	33. 1-WT-514*	Steam Generator Wet Layup	NA
	34. 1-SI-77##*	High Head Safety Injection (Boron Injection Tank Bypass)	NA
	35. 1-FP-275#*	Fire Protection Hose Standpipe	NA

Amendment No. A2, 143,

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
E. REMOTE MANUAL		
1. MOV-QS101A*	Quench Spray Pump Discharge	NA
2. MOV-QS101B*	Quench Spray Pump Discharge	NA
3. MOV-RS155A#*	Recirculation Spray Pump Suction	NA
4. MOV-RS155B#*	Recirculation Spray Pump Suction	NA
5. MOV-1860A#*	LHSI Pump Suction From Containment Sump	NA
6. MOV-1860B#*	LHSI Pump Suction From Containment Sump	NA
7. MOV-RS156A*	Recirculation Spray Pump Discharge	NA
8. MOV-RS156B*	Recirculation Spray Pump Discharge	NA
9. MOV-SW103A*##	Service Water to Recirculation Spray Coolers	NA
10. MOV-SW103B*##	Service Water to Recirculation Spray Coolers	NA
11. MOV-SW103C*##	Service Water to Recirculation Spray Coolers	NA
12. MOV-SW103D*##	Service Water to Recirculation Spray Coolers	NA
13. MOV-SW104A*##	Service Water to Recirculation Spray Coolers	NA
14. MOV-SW104B*##	Service Water to Recirculation Spray Coolers	NA
15. MOV-SW104C*##	Service Water to Recirculation Spray Coolers	NA
16. MOV-SW104D*##	Service Water to Recirculation Spray Coolers	NA
17. TV-CV100*	Containment Air Ejector Suction	NA
18. MOV-1869A*##	High Head Safety Injection to RCS Except Boron Injection Line	NA

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
19. MOV-1836*##	High Head Safety Injection to RCS Except Boron Injection Line	NA
20. MOV-1869B*##	High Head Safety Injection to RCS Except Boron Injection Line	NA
21. Deleted		
22. Deleted		
23. Deleted		
24. MOV-1890A*##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
25. MOV-1890B*##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
26. MOV-1890C*##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
27. MOV-1890D*##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
28. FCV-1160*##	Loop Fill Header	NA
29. MOV-1289A*##	Charging Line	NA
30. MOV-1867C*##	High Head Safety Injection, Boron Injection Tank	NA
31. MOV-1867D*##	High Head Safety Injection, Boron Injection Tank	NA
32. MOV-RS-100A*##	Casing Cooling to Outside Recirculation Spray Pump	NA
33. MOV-RS-100B*##	Casing Cooling to Outside Recirculation Spray Pump	NA
34. MOV-RS-101A*##	Casing Cooling to Outside Recirculation Spray Pump	NA

NORTH ANNA - UNIT 1

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Amendment No. 48, 99, 143,

NORTH ANNA - UNIT 1

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Amendment No. 38, 43, 98, 143,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
35. MOV-RS-101B* ##	Casing Cooling to Outside Recirculation Spray Pump	NA
36. TV-HC-108A*	Containment Atmosphere Sample Line	NA
37. TV-HC-108B*	Containment Atmosphere Sample Line	NA
38. TV-HC-100A	Suction Hydrogen Analyzer	NA
39. TV-HC-100B	Suction Hydrogen Analyzer	NA
40. TV-HC-101A	Discharge Hydrogen Analyzer	NA
41. TV-HC-101B	Discharge Hydrogen Analyzer	NA
42. TV-HC-102A	Suction Hydrogen Analyzer	NA
43. TV-HC-102B	Suction Hydrogen Analyzer	NA
44. TV-HC-103A	Discharge Hydrogen Analyzer	NA
45. TV-HC-103B	Discharge Hydrogen Analyzer	NA
46. TV-HC-104A*	Suction Hydrogen Recombiner	NA
47. TV-HC-104B*	Suction Hydrogen Recombiner	NA
48. TV-HC-105A*	Discharge Hydrogen Recombiner	NA
49. TV-HC-105B*	Discharge Hydrogen Recombiner	NA
50. TV-HC-106A*	Suction Hydrogen Recombiner	NA
51. TV-HC-106B*	Suction Hydrogen Recombiner	NA
52. TV-HC-107A*	Discharge Hydrogen Recombiner	NA
53. TV-HC-107B*	Discharge Hydrogen Recombiner	NA

NORTH ANNA - UNIT 1

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Amendment No. 16, 43, 143,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
F. CHECK		
1. 1-CC-193	Component Cooling Water to RHR System and Excess Letdown Heat Exchanger	NA
2. 1-CC-198	Component Cooling Water to RHR System and Excess Letdown Heat Exchanger	NA
3. 1-SI-79##	High Head Safety Injection, Boron Injection to RCS	NA
4. 1-CC-572	Component Cooling Water to Containment Air Recirculation Coils	NA
5. 1-CC-559	Component Cooling Water to Containment Air Recirculation Coils	NA
6. 1-CC-546	Component Cooling Water to Containment Air Recirculation Coils	NA
7. 1-CH-322##	Charging Line	NA
8. 1-CC-154	Component Cooling Water to Reactor Coolant Pumps	NA
9. 1-CC-119	Component Cooling Water to Reactor Coolant Pumps	NA
10. 1-CC-84	Component Cooling Water to Reactor Coolant Pumps	NA
11. 1-CH-402	Reactor Coolant Pumps, Seal Water Return	NA
12. 1-SI-110	Safety Injection Accumulator Make Up	NA
13. 1-SI-185##	High Head Safety Injection to RCS Except Boron Injection Line	NA
14. 1-HC-18	Discharge From Containment Atmosphere Cleanup System (Hydrogen Recombiner)	NA
15. 1-HC-14	Discharge From Containment Atmosphere Cleanup System (Hydrogen Recombiner)	NA
16. 1-CH-380#	Reactor Coolant Pump Seal Water Supply	NA
17. 1-CH-336#	Reactor Coolant Pump Seal Water Supply	NA
18. 1-CH-358#	Reactor Coolant Pump Seal Water Supply	NA
19. 1-IA-149	Air Radiation Monitor Return	NA
20. 1-RC-149	Primary Grade Water to Pressurizer Relief Tank	NA
21. 1-CH-330##	Loop Fill Header	NA

TABLE 3.6-1 (Cont.)

VALVE NUMBER	FUNCTION	ISOLATION TIME (SEC.)
22. 1-IA-55	Instrument Air Line	NA
23. 1-SI-106	Nitrogen to Pressurizer Relief Tank and SI Accumulators	NA
24. 1-SI-206##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
25. 1-SI-207##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
26. 1-SI-195##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
27. 1-SI-197##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
28. 1-SI-199##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
29. 1-QS-19**	Quench Spray Pump Discharge	NA
30. 1-QS-11**	Quench Spray Pump Discharge	NA
31. 1-RS-27**	Recirculation Spray Pump Discharge	NA
32. 1-RS-18**	Recirculation Spray Pump Discharge	NA
33. 1-VP-12	Air Ejector Vent	NA
34. 1-SI-90##	High Head Safety Injection to RCS Except Boron Injection Line	NA
35. 1-SI-201##	High Head Safety Injection to RCS Except Boron Injection Line	NA
36. Deleted		
37. 1-FW-47#	Feedwater to Steam Generators	NA
38. 1-FW-111#	Feedwater to Steam Generators	NA
39. 1-FW-79#	Feedwater to Steam Generators	NA
40. 1-WT-50#	Chemical Feed Lines	NA
41. 1-WT-66#	Chemical Feed Lines	NA
42. 1-WT-38#	Chemical Feed Lines	NA
43. 1-FW-68#	Auxiliary Feedwater to Steam Generator	NA
44. 1-FW-100#	Auxiliary Feedwater to Steam Generator	NA
45. 1-FW-132#	Auxiliary Feedwater to Steam Generator	NA
46. 1-FP-272#	Fire Protection Hose Standpipe	NA
47. 1-RS-123#	Casing Cooling to Outside Recirc Spray Pump	NA
48. 1-RS-138#	Casing Cooling to Outside Recirc Spray Pump	NA

NORTH ANNA - UNIT 1

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Amendment No. 18, 48, 143,

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
G. STEAM LINE ISOLATION		
1. TV-MS-101A#	Main Steam Line Trip Valve	5
2. TV-MS-101B#	Main Steam Line Trip Valve	5
3. TV-MS-101C#	Main Steam Line Trip Valve	5
H. RELIEF		
None		

Valve not subject to Type "C" leakage test

* Valve position maintained by administrative control

NA - Not applicable

** - Requires testing per Technical Specifications 4.6.3.1.1a. or 4.6.3.1.2d.

Type "C" leakage values are not required to be added to the Type A leakage rate.



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. 126
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, et al., (the licensee) dated February 23, 1989, as supplemented December 31, 1990, 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.

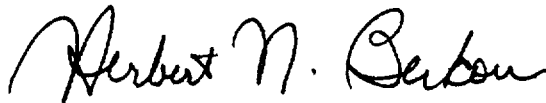
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-7 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 126, 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 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: February 20, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 126

TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

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.

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TABLE 3.6-1 (Continued)

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (SEC.)
31. 2-WT-447*	Steam Generator Wet Layup	NA
32. 2-WT-448*	Steam Generator Wet Layup	NA
33. 2-SI-83*##	High Head Safety Injection (Boron Injection Tank Bypass)	NA
34. 2-FP-81*	Fire Protection Supply (Penetration 34)	NA
35. 2-FP-82#*	Fire Protection Supply (Penetration 34)	NA
36. 2-WT-354#*	Chemical Feed Lines	NA
37. 2-WT-357#*	Chemical Feed Lines	NA
38. 2-WT-351#*	Chemical Feed Lines	NA
E. REMOTE MANUAL		
1. MOV-QS201A*	Quench Spray Pump Discharge	NA
2. MOV-QS201B*	Quench Spray Pump Discharge	NA
3. MOV-RS255A#*	Recirculation Spray Pump Suction	NA
4. MOV-RS255B#*	Recirculation Spray Pump Suction	NA
5. MOV-2860A#*	LHSI Pump Suction From Containment Sump	NA
6. MOV-2860B#*	LHSI Pump Suction From Containment Sump	NA
7. MOV-RS256A*	Recirculation Spray Pump Discharge	NA
8. MOV-RS256B*	Recirculation Spray Pump Discharge	NA
9. MOV-SW203A*##	Service Water to Recirculation Spray Coolers	NA
10. MOV-SW203B*##	Service Water to Recirculation Spray Coolers	NA
11. MOV-SW203C*##	Service Water to Recirculation Spray Coolers	NA
12. MOV-SW203D*##	Service Water to Recirculation Spray Coolers	NA
13. MOV-SW204A*##	Service Water from Recirculation Spray Coolers	NA

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
14. MOV-SW204B*##	Service Water from Recirculation Spray Coolers	NA
15. HOV-SW204C*##	Service Water from Recirculation Spray Coolers	NA
16. MOV-SW204D*##	Service Water from Recirculation Spray Coolers	NA
17. TV-CV200*	Containment Air Ejector Suction	NA
18. MOV-2869A*##	High Head Safety Injection to RCS Except Boron Injection Line	NA
19. MOV-2836*##	High Head Safety Injection to RCS Except Boron Injection Line	NA
20. MOV-2869B*##	High Head Safety Injection to RCS Except Boron Injection Line	NA
21. Deleted		
22. Deleted		
23. Deleted		
24. MOV-2890A*##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
25. MOV-2890B*##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
26. MOV-2890C*##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA

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TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
27. MOV-2890D*##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
28. FCV-2160*##	Loop Fill Header	NA
29. MOV-2289A*##	Charging Line	NA
30. MOV-2867C*##	High Head Safety Injection, Boron Injection Tank	NA
31. MOV-2867D*##	High Head Safety Injection, Boron Injection Tank	NA
32. MOV-RS-200A*##	Casing Cooling to Outside Recirculation Spray Pump	NA
33. MOV-RS-200B*##	Casing Cooling to Outside Recirculation Spray Pump	NA
34. MOV-RS-201A*##	Casing Cooling to Outside Recirculation Spray Pump	NA
35. MOV-RS-201B*##	Casing Cooling to Outside Recirculation Spray Pump	NA
36. TV-HC-208A	Containment Atmosphere Sample Line	NA
37. TV-HC-208B	Containment Atmosphere Sample Line	NA
38. TV-HC-200A	Suction Hydrogen Analyzer	NA
39. TV-HC-200B	Suction Hydrogen Analyzer	NA
40. TV-HC-201A	Discharge Hydrogen Analyzer	NA
41. TV-HC-201B	Discharge Hydrogen Analyzer	NA
42. TV-HC-202A	Suction Hydrogen Analyzer	NA
43. TV-HC-202B	Suction Hydrogen Analyzer	NA
44. TV-HC-203A	Discharge Hydrogen Analyzer	NA

TABLE 3.6-1 (Cont.)

	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
45.	TV-HC-203B	Discharge Hydrogen Analyzer	NA
46.	TV-HC-204A*	Suction Hydrogen Recombiner	NA
47.	TV-HC-204B*	Suction Hydrogen Recombiner	NA
48.	TV-HC-205A*	Discharge Hydrogen Recombiner	NA
49.	TV-HC-205B*	Discharge Hydrogen Recombiner	NA
50.	TV-HC-206A*	Suction Hydrogen Recombiner	NA
51.	TV-HC-206B*	Suction Hydrogen Recombiner	NA
52.	TV-HC-207A*	Discharge Hydrogen Recombiner	NA
53.	TV-HC-207B*	Discharge Hydrogen Recombiner	NA
F. CHECK			
1.	2-CC-194	Component Cooling Water to RHR System and Excess Letdown Heat Exchanger	NA
2.	2-CC-199	Component Cooling Water to RHR System and Excess Letdown Heat Exchanger	NA
3.	2-SI-93##	High Head Safety Injection, Boron Injection to RCS	NA
4.	2-CC-302	Component Cooling Water to Containment Air Recirculation Coils	NA
5.	2-CC-289	Component Cooling Water to Containment Air Recirculation Coils	NA

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
6. 2-CC-276	Component Cooling Water to Containment Air Recirculation Coils	NA
7. 2-CH-335##	Charging Line	NA
8. 2-CC-152	Component Cooling Water to Reactor Coolant Pumps	NA
9. 2-CC-115	Component Cooling Water to Reactor Coolant Pumps	NA
10. 2-CC-78	Component Cooling Water to Reactor Coolant Pumps	NA
11. 2-CH-331	Reactor Coolant Pumps, Seal Water Return	NA
12. 2-SI-136	Safety Injection Accumulator Make Up	NA
13. 2-SI-85##	High Head Safety Injection to RCS Except Boron Injection Line	NA
14. 2-HC-20	Discharge From Containment Atmosphere Cleanup System	NA
15. 2-HC-15	Discharge From Containment Atmosphere Cleanup System	NA
16. 2-CH-308#	Reactor Coolant Pump Seal Water Supply	NA
17. 2-CH-260#	Reactor Coolant Pump Seal Water Supply	NA
18. 2-CH-284#	Reactor Coolant Pump Seal Water Supply	NA
19. 2-1A-428	Air Radiation Monitor Return	NA
20. 2-RC-162	Primary Grade Water	NA
21. 2-CH-332##	Loop Fill Header	NA
22. 2-1A-250	Containment Instrument Air Return	NA

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
23. 2-SI-132	Nitrogen to Pressurizer Relief Tank and SI Accumulators	NA
24. 2-SI-126##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
25. 2-SI-128##	LHSI Pump Discharge to Reactor Coolant System Hot Legs	NA
26. 2-SI-91##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
27. 2-SI-99##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
28. 2-SI-105##	LHSI Pump Discharge to Reactor Coolant System Cold Legs	NA
29. 2-QS-22**	Quench Spray Pump Discharge	NA
30. 2-QS-11**	Quench Spray Pump Discharge	NA
31. 2-RS-30**	Recirculation Spray Pump Discharge	NA
32. 2-RS-20**	Recirculation Spray Pump Discharge	NA
33. 2-VP-24	Air Ejector Vent	NA
34. 2-SI-119##	High Head Injection to RCS Except Boron Injection Line	NA
35. 2-SI-107##	High Head Injection to RCS Except Boron Injection Line	NA
36. 2-FW-62#	Feedwater to Steam Generators	NA

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
37. 2-FW-94#	Feedwater to Steam Generators	NA
38. 2-FW-126#	Feedwater to Steam Generators	NA
39. 2-WT-41#	Chemical Feed Lines	NA
40. 2-WT-53#	Chemical Feed Lines	NA
41. 2-WT-69#	Chemical Feed Lines	NA
42. 2-FW-70#	Auxiliary Feedwater to Steam Generator	NA
43. 2-FW-102#	Auxiliary Feedwater to Steam Generator	NA
44. 2-FW-134#	Auxiliary Feedwater to Steam Generator	NA
45. 2-RS-103#	Casing Cooling to Outside Recirc Spray Pump	NA
46. 2-RS-118#	Casing Cooling to Outside Recirc Spray Pump	NA
47. 2-FP-79	Fire Protection Supply (Penetration 34)	NA

TABLE 3.6-1 (Continued)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SEC.)</u>
G. STEAM LINE ISOLATION		
1. TV-MS-101A#	Main Steam Line Trip Valve	5
2. TV-MS-101B#	Main Steam Line Trip Valve	5
3. TV-MS-101C#	Main Steam Line Trip Valve	5

H. RELIEF

None

Valve not subject to Type "C" leakage test

* Valve position maintained by administrative control

NA - Not Applicable

** - Requires testing per Technical Specifications 4.6.3.1.1a. or 4.6.3.1.2d.

Type "C" leakage values are not required to be added to the Type A leakage rate.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 143 AND 126 TO

FACILITY OPERATING LICENSE NOS. NPF-4 AND NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

NORTH ANNA POWER STATION, UNITS NO. 1 AND NO. 2

DOCKET NOS. 50-338 AND 50-339

1.0 INTRODUCTION

By letter dated February 23, 1989, as supplemented by letter dated December 31, 1990, Virginia Electric and Power Company (the licensee) requested amendments to the Technical Specifications (TS) for North Anna Power Station, Units 1 and 2 (NA-1&2), which would revise Section 3/4.6 Table 3.6-1, containment isolation valves for NA-1&2 to (1) identify valves that are associated with "water-filled" penetrations for which a Type C test penalty will not be added to the Type A (containment integrated leakage rate) test results, (2) add containment isolation valves not previously listed, and (3) delete a valve incorrectly listed in Table 3.6-1 for NA-1.

The December 31, 1990 letter provided additional information requested by the staff. The additional information did not alter the staff's initial determination of no significant hazards consideration as noticed in the Federal Register on August 8, 1989 (54 FR 32720).

2.0 DISCUSSION

2.1 "Water-Filled" Penetrations

Section III.A.1.(d) of Appendix J requires that during a Type A test, certain piping systems that penetrate containment must be vented to the atmosphere inside containment and drained of water, exposing the associated containment isolation valves to the containment atmosphere during the test and thus including them in the Type A test. This is intended to simulate accident conditions for piping systems that might rupture or otherwise be open to the containment atmosphere during a LOCA. As an alternative to venting and draining a system, Type C tests may be performed on the associated containment isolation valves and the measured leakage rates added to the Type A leakage rate.

The licensee asserts that Type C additions of this kind from certain valves in the service water system, the safety injection system (including the charging pumps) and the containment recirculation spray system are not required, because

these "water-filled" penetrations are not potential containment atmosphere leak paths; thus, their Type C leakage rates should not be added to the Type A leakage rate.

Containment isolation valves associated with the service water system include penetrations 79 through 86. These valves are outside of containment and the service water in the piping system does not communicate with the containment atmosphere or any other system inside containment. In accordance with Appendix J, Section III.A.1.(d), the staff finds that the lines containing the subject valves need not be vented to the containment atmosphere nor drained of water during Type A tests, and that the leakage rates measured by Type C tests on those valves need not be added to the Type A test results. Type C testing will continue and the measured leakage rates added to the sum of Type B and Type C tests.

Also, containment penetrations in question are nos. 7, 15, 22, 46, 60, 61, 62, 113, and 114 (various high head and low head safety injection pump discharge lines into containment), and 66 and 67 (recirculation spray pump suction lines from the containment recirculation sump). The valves in these penetrations are currently Type C tested and will continue to be Type C tested. Further, their leakage rates will continue to be added to the total of all local leakage rates. Total leakage must be less than 0.60 La in accordance with Appendix J, where La is the maximum allowable leakage rate for the containment specified in the facility TS. The licensee proposes only that the Type C leakage rates for the subject penetrations not be added to the Type A leakage rate.

The high head and low head safety injection (HHSI and LHSI) systems and the recirculation spray system are engineered safety feature, safety-grade, and Seismic Category 1 systems. The HHSI has three redundant pumps whose discharge lines enter a common header outside containment before splitting to the various containment penetrations. The LHSI has two redundant pumps whose discharge lines are connected outside containment by a crosstie line with locked open valves. Water is supplied to these systems from the containment sump for long-term core cooling. Therefore, the staff finds that the designs of these systems assure (1) a supply of high pressure water to penetrations 7, 15, 22, 46, 60, 61, 62, 113, and 114 for at least 30 days after the onset of a LOCA, accounting for a worst-case single active failure (e.g., loss of a pump or diesel generator), and (2) a water seal of the subject valves, thereby precluding containment atmosphere leakage through the closed valve disks. However, some of the subject valves are oriented in such a way that valve packing/stem leakage of the valves located outside containment is not precluded by this water seal, thus providing a potential leak path out of the containment. For these valves, a water leg (pipe loop) exists between the valve and its penetration. Considering (1) the presence of the water legs, (2) the fact that the periodic Type C tests on all of the valves of concern include the possible packing/stem leak paths so that such leakage will be maintained low, and (3) that the North Anna subatmospheric containment is designed to reduce containment pressure below atmospheric pressure 1 hour after onset of a LOCA, significant packing/stem leakage for these valves is not likely. Therefore, the staff finds that penetrations 7, 15, 22, 46, 60, 61, 62, 113, and 114 need not be vented and drained during Type A tests and the associated Type C leakage rates need not be added to the Type A leakage rate.

Penetrations 66 and 67 are containment recirculation sump suction paths for the recirculation spray. The containment recirculation sump will be filled with water during a LOCA and will remain water filled throughout the accident. Therefore, the staff finds that the recirculation sump penetrations are not potential containment atmosphere leak paths, and the associated Type C leakage rates need not be added to the Type A leakage rate.

Based on the above, the staff concludes that "water-filled" containment penetrations 7, 15, 22, 46, 60, 61, 62, 66, 67, 113, and 114 are sealed with water to the extent that they need not be vented or drained during Type A tests, and the associated Type C leakage rates need not be added to the Type A leakage rate.

2.2 Adding Containment Isolation Valves to TS Table 3.6-1

TS Table 3.6-1 provides lists of containment isolation valves for NA-1&2. However, errors, omissions, and discrepancies between the tables for the two units exist. The licensee proposed a list of changes to obtain consistency between the NA-1&2 tables and to identify the fire protection isolation valves. The staff considers these changes to be appropriate and acceptable.

2.3 Deletion of a Valve Incorrectly Included in the Table 3.6-1 for NA-1

The changes discussed in 2.2 above would not delete any valves from either table. However, the licensee states that check valve 1-SI-85 in the NA-1 Table 3.6-1 was included in error and should be deleted. The correct check valve for this isolation function, 1-SI-185, is already included in the NA-1 table. The change is acceptable to the staff.

3.0 EVALUATION

The staff concludes that the proposed changes to TS Tables 3.6-1 for NA-1&2 associated with the issues evaluated in Sections 2.1, 2.2, and 2.3 above are acceptable. The staff finds that the lines containing the subject valves need not be vented to the containment atmosphere nor drained of water during Type A tests, and that the leakage rates measured by Type C tests on those valves need not be added to the Type A test results. Type C testing will continue and the measured leakage rates will be added to the sum of Type B and Type C tests in the usual manner. Therefore, the proposed TS changes are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change to a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding.

Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: February 20, 1991

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