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Docket No. 50-339

Mr. R. H. Leasburg
Vice President - Nuclear Operations
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Leasburg:

The Commission has issued the enclosed Amendment No. 25 to Facility Operating License No. NPF-7 for the North Anna Power Station, Unit No. 2 (NA-2). The amendment revised the NA-2 Technical Specifications in response to your letter dated April 23, 1982 (Serial No. 257) and in our discussions with you regarding this matter. The amendment is effective as of its date of issuance.

The changes as requested in your April 23, 1982 request would upgrade and add twenty (20) containment isolation valves to Table 3.6.1 for NA-2 in order to meet the requirements of NUREG-0737, Action Items II.B.2 and II.B.3 for Post-Accident Shielding and Post Accident Sampling, respectively.

The additions to Table 3.6.1 include two (2) Phase A direct-acting solenoid valves, two (2) Phase A air-operated trip valves, and sixteen (16) remote manual operated valves.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original signed by

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



Enclosures:

- 1. Amendment No. 25 to NPF-7
- 2. Safety Evaluation
- 3. Notice of Issuance

cc w/enclosures:
See next page

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OFFICE	ORB#3:DL LEngle/pn	ORB#3:DL RAClark	AD:OR:DL TMNovak	OELD DS/1/82			
SURNAME							
DATE	5/14/82	5/14/82	5/14/82	5/14/82			

no legal objection to and a notice



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

Docket No. 50-335

Docketing and Service Section
 Office of the Secretary of the Commission

SUBJECT: VIRGINIA ELECTRIC AND POWER COMPANY North Anna Unit 2

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (12) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).

Other: Amendment No. 25
Referenced documents have been provided PDR.

Division of Licensing
 Office of Nuclear Reactor Regulation

Enclosure:
 As Stated

OFFICE →	DL:ORB#3					
SURNAME →	PMKreutzer					
DATE →	5/17/82					

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

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Mr. Edward Kube
Board of Supervisors
Louisa County Courthouse
P. O. Box 27
Louisa, Virginia 23093

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

Mr. W. R. Cartwright, Station Manager
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.N.R.C.
Route 2, Box 78A
Mineral, Virginia 23117

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

Mr. James Torson
501 Leroy
Socorro, New Mexico 87891

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

Mr. James C. Dunstance
State Corporation Commission
Commonwealth of Virginia
Blandon Building
Richmond, Virginia 23209

Mrs. June Allen
North Anna Environmental Coalition
8720 Lockmoor Circle
Wichita, Kansas 67207

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

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, D. C. 20555

Regional Administrator
Nuclear Regulatory Commission, Region II
Office of Executive Director for Operations
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 25
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 April 23, 1982 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 applications, 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. 25 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. 25, 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



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 17, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 25 TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

Add the following pages to the Appendix "A" Technical Specifications as indicated. The new pages are identified by Amendment number and contain vertical lines indicating the area of change.

Pages

3/4 6-19
3/4 6-20
3/4 6-23
3/4 6-26
3/4 6-27
3/4 6-27a
3/4 6-28
3/4 6-29
3/4 6-29
3/4 6-30
3/4 6-31
3/4 6-32

TABLE 3.6-1 (Cont.)

	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
47.	TV-CV250A	Containment Vacuum Pump Suction	60
48.	TV-CV250B	Containment Vacuum Pump Suction	60
49.	TV-CV250C	Containment Vacuum Pump Suction	60
50.	TV-CV250D	Containment Vacuum Pump Suction	60
51.	TV-SS203A	Residual Heat Removal System Sample Lines	60
52.	TV-SS203B	Residual Heat Removal System Sample Lines	60
53.	TV-LM201A	Reactor Containment Leakage Monitoring Lines to Reference System	60
54.	TV-LM201B	Reactor Containment Leakage Monitoring Lines to Reference System	60
55.	TV-LM201C	Reactor Containment Leakage Monitoring Lines to Reference System	60
56.	TV-LM201D	Reactor Containment Leakage Monitoring Lines to Reference System	60
57.	TV-2859	Safety Injection Test Line	10
58.	TV-2842	Safety Injection Test Line	10
59.	TV-SS212A	Steam Generator Surface Sample	60
60.	TV-SS212B	Steam Generator Surface Sample	60
61.	TV-MS209#	Main Steam Drains to Condenser	60
62.	TV-MS210#	Main Steam to Blowdown	60
63.	TV-SV202-2#	Condenser Air Ejector Vent	60
64.	FCV-AS200A#	Condenser Air Ejector Steam Supply	60
65.	FCV-AS200B#	Condenser Air Ejector Steam Supply	60

TABLE 3.6-1 (cont.)

	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
D.	MANUAL		
1.	2-SI-47*	Safety Injection Accumulator Make Up	NA
2.	2-RH-38*	Residual Heat Removal System to Refueling Water Storage Tank	NA
3.	2-RH-37*	Residual Heat Removal System to Refueling Water Storage Tank	NA
4.		(Deleted)	
5.		(Deleted)	
6.		(Deleted)	
7.		(Deleted)	
8.	2-DA-7*	Primary Vent Pot Vent	NA
9.	2-DA-9*	Primary Vent Pot Vent	NA
10.	2-CH-233#*	Reactor Coolant Pump Seal Water Supply	NA
11.	2-CH-237#*	Reactor Coolant Pump Seal Water Supply	NA

TABLE 3.6-1 (Cont.)

<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC.)</u>
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. NA*	Fire Protection Supply (Penetration 34)	NA
E. REMOTE MANUAL		
1. MOV-QS201A*	Quench Spray Pump Discharge	NA
2. MOV-QS201B*	Quench Spray Pump Discharge	NA
3. MOV-RS255A#*	Recirc. Spray Pump Suction	NA
4. MOV-RS255B#*	Recirc. 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 (Cont.)

	<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>
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 Clean-up System	NA
15. 2-HC-15	Discharge From Containment Atmosphere Clean-up 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-IA-428	Air Radiation Monitor Return	NA
20. 2-RC-162	Primary Grade Water	NA
21. 2-CH-332	Loop Fill Header	NA
22. 2-IA-250	Containment Instrument Air Return	NA

TABLE 3.6-1 (Cont.)

<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 Recirculation Spray Pump	NA
46.	2-RS-118# Casing Cooling to Outside Recirculation Spray Pump	NA
47.	NA Fire Protection Supply (Penetration 34)	NA

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen analyzers (shared with Unit 1) shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one hydrogen analyzer inoperable, restore the inoperable analyzer to operable status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analyzer shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gases containing:

- a. One volume percent ($\pm .25\%$) hydrogen, balance nitrogen, and
- b. Four volume percent ($\pm .25\%$) hydrogen, balance nitrogen.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 25 TO FACILITY OPERATING LICENSE NO. NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNIT NO. 2

DOCKET NO. 50-339

Introduction:

By letter dated April 23, 1982 (Serial No. 275), the Virginia Electric and Power Company (the licensee) requested a change to the Technical Specifications (TS) for the North Anna Power Station, Unit No. 2 (NA-2).

The requested change would add and delete certain containment isolation valves to improve post-accident sampling activities. Also, presently installed manual isolation valves would be replaced with remote operated isolation valves for post-accident containment hydrogen analysis and control equipment.

A discussion and our evaluation and conclusion regarding the licensee's requested change is provided below.

Discussion:

The proposed change would revise the NA-2 TS 3/4.6.3.1, Table 3.6-1 to reflect the addition and deletion of containment isolation valves.

The addition of two (2) direct-acting solenoid valves (TV-SS203A and TV-SS203 B) will be used to replace two (2) air-operated trip valves (TV-SS207A and TV-SS207B) in the Residual Heat Removal System Sample Lines. The double isolation direct-acting solenoid valves are being installed to provide increased assurance of reliable operation during accident conditions. The valves will be normally closed and receive a Phase A signal to assure they are tripped closed on a safety injection signal. These modifications are required to meet the provisions of NUREG-0737, II.B.3, Post-Accident Sampling.

The addition of two air-operated Phase A trip valves (TV-DA203A and TV-DA203B) are being installed on the Post-Accident Sampling System return lines. These valves will reduce radiation levels outside containment should post-accident samples be required to be withdrawn from the reactor coolant system and containment sump. These modifications are required to meet the provisions of NUREG-0737, II.B.3, Post-Accident Sampling.

Four (4) manual isolation valves (2-HC-13, 2-HC-29, 2-HC-18, and 2-HC-33) in the hydrogen-recombiner and analyzer system are being replaced with sixteen (16) remote-manual valves (HC-series valves) to upgrade the hydrogen recombiner and analyzer system. The addition of these remote-manual isolation valves will reduce radiation levels

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outside of containment should the hydrogen analyzer and recombiner be required to be in service for post-accident conditions.

Eight of these valves are in the suction and return lines for the hydrogen analyzers. These remote-manual valves are TV-HC-200A&B (in series), TV-HC-201 A&B (in series), TV-HC-202 A&B (in series) and TV-HC-203 A&B (in series).

Eight of these valves are in the suction and discharge lines for the hydrogen recombiners. These remote-manual valves are TV-HC-204 A&B (in series) TV-HC-205 A&B (in series), TV-HC-206 A&B (in series), and TC-HC-207 A&B (in series).

The above modifications are required to meet the provisions of NUREG-0737, Item II.B.2, Post Accident Shielding.

Evaluation:

~~The upgrading and installation of the above containment isolation valves meets the requirements for Category I Containment Isolation Valves specified in the NA-2 Final Safety Analysis Report. Double barrier protection is provided by two (2) valves to assure that no single failure will result in the loss of containment integrity. Containment penetration piping including the isolation valves are designed to Seismic Category I Requirements.~~

As stated above, isolation valves TV-SS203A, TV-SS203B, TV-DA203A, and TV-DA203B are normally closed and receive a Phase A signal to assure they are tripped closed on a safety injection signal. Maximum isolation time for these valves is specified to be 60 seconds. We have already reviewed Phase A isolation as specified in the NA-2 FSAR and found it to be acceptable as well as a maximum closure time of 60 seconds for containment isolation.

The remote-manual valves (HC series valves) being added for the post-accident containment hydrogen and control equipment and numbered 200 A&B through 208A&B (sixteen valves in all) will be closed at all times and can be only opened upon remote-manual activation from the control room. Opening of these valves will only take place under specific administrative control as specified in post-accident procedures.

Based on the above, we find the licensee's request to add the above specified isolation valves to the NA-2 TS 3/4.6.3.1, Table 3.6-1, to be acceptable. Also, these isolation valves are required to meet the provisions of NUREG-0737, Item II.B.2, Post Accident Shielding; and Item II.B.3, Post Accident Sampling.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) ~~because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration,~~ (2) there is reasonable assurance that the health and safety of the public ~~will not be endangered by operation in the proposed manner,~~ and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 17, 1982

Principal Contributors:

Leon B. Engle

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-339VIRGINIA ELECTRIC AND POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 25 to Facility Operating License No. NPF-7 issued to the Virginia Electric and Power Company (the licensee) for operation of the North Anna Power Station, Unit No. 2 (the facility) located in Louisa County, Virginia. The amendment is effective as of its date of issuance.

The amendment revises the NA-2 Technical Specifications by upgrading and adding twenty (20) containment isolation valves to Table 3.6.1 to meet the requirements of NUREG-0737, Action Item II.B.2, Post-Accident Shielding; and Action Item II.B.3, Post-Accident Sampling.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

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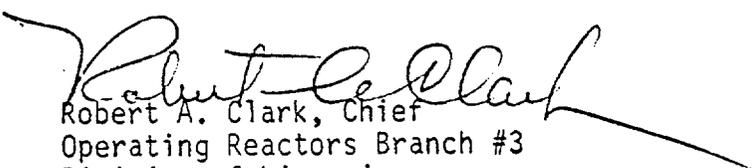
- 2 -

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated April 23, 1982; (2) Amendment No. 25 to Facility Operating License No. NPF-7; and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and at the Board of Supervisors Office, Louisa County Courthouse, Louisa, Virginia 23093 and at the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901. A copy of items (2) and (3) may be obtained upon request to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland the 17th day May, 1982

FOR THE NUCLEAR REGULATORY COMMISSION


Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing