

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

January 9, 2001

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Serial No. 01-019  
NLOS/ETS  
Docket No. 50-339  
License No. NPF-7

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**NORTH ANNA POWER STATION UNIT 2**  
**PROPOSED OPERATING LICENSE CHANGES**  
**DELETION OF OBSOLETE LICENSE CONDITIONS**

Pursuant to 10CFR50.90, Virginia Electric and Power Company requests amendments in the form of revisions to Facility Operating License Number NPF-7 for North Anna Power Station Unit 2. The proposed administrative changes will remove obsolete license conditions from the Operating License. These changes will facilitate our planned conversion to Improved Technical Specifications and submittal of a license renewal application. The proposed changes can be categorized as follows:

- Editorial changes
- Relocation of license conditions
- Removal of license conditions associated with completed modifications
- Removal of expired license conditions

A discussion of the proposed changes to the Operating Licenses is provided in Attachment 1. The proposed changes have been reviewed and approved by the Station Nuclear Safety and Operating Committee and the Management Safety Review Committee. Marked-up Operating License pages that reflect the proposed changes are provided in Attachment 2. Revised Operating Licenses pages that incorporate the proposed changes are provided in Attachment 3. The basis for our determination that the proposed changes to the Operating Licenses do not involve a significant hazards consideration, as defined in 10CFR50.92, is provided in Attachment 4.

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Due to the extensive procedure changes necessary to implement this change, a sixty-day implementation period is requested. Should you have any questions or require additional information, please contact us.

Very truly yours,



William R. Matthews  
Vice President – Nuclear Operations

Attachments:

1. Discussion of Change
2. Mark-up of Operating Licenses and Technical Specifications Pages
3. Proposed Operating Licenses and Technical Specifications Pages
4. Significant Hazards Consideration Determination

Commitments made in this letter: None.

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**ATTACHMENT 1**

**DISCUSSION OF CHANGES**

**VIRGINIA ELECTRIC AND POWER COMPANY  
(DOMINION)  
NORTH ANNA POWER STATION UNIT 2**

## **DISCUSSION OF CHANGE**

### **INTRODUCTION**

The original issuance of the North Anna Unit 2 Facility Operating License, NPF-7, contained a significant amount of license conditions. North Anna Unit 2 was the first full power operating license issued following the March, 1979 accident at Three Mile Island. Due to the dynamic regulatory environment at that time, many conditional requirements were placed on the Unit 2 Facility Operating License (FOL) to address outstanding licensing issues and facilitate issuance of the FOL. Since the original issuance of the North Anna Unit 2 FOL, several additional requirements (license conditions) have been incorporated into the license via the license amendment process pursuant to 10 CFR 50.90. In some cases, subsequent license amendments have removed certain license conditions when they were no longer applicable. In other cases, license conditions have been left intact even though they are no longer required. The large majority of the original license conditions remain in the current version of the Unit 2 FOL.

Virginia Electric and Power Company (Dominion) is proposing an administrative change to the North Anna Unit 2 FOL to remove those license conditions that no longer apply or that could be relocated within the FOL to provide a more consistent and concise license format. This proposed FOL "cleanup" activity also includes minor editorial changes for consistency. A similar effort was initiated by the NRC in 1981 for the North Anna Unit 1 FOL, NPF-4, as a "consistency check" and was subsequently issued as License Amendment No. 31 dated May 28, 1981. No equivalent effort was performed for Unit 2 at that time.

Revision of the North Anna Unit 2 FOL is being proposed to retain only those license conditions that remain pertinent to current station operations. The intent is to provide a North Anna Unit 2 license document for license renewal and conversion to the Improved Technical Specifications (ITS) that does not contain unnecessary or obsolete requirements and that is directly applicable to the current plant design and licensing bases. A comparable "cleanup" effort for Unit 1 is being submitted jointly with this proposed change.

## **DISCUSSION**

The proposed changes to the Facility Operating License for North Anna Unit 2 can be divided into four groups based on commonality. Subsequent discussions presented herein are based on this categorization. Additionally, the applicable change group is specifically identified on each of the mark-ups associated with these proposed changes. The four groups are as follows:

1. Purely editorial changes to the Unit 2 FOL,
2. Relocation of existing Unit 2 FOL license conditions,
3. Removal of license conditions associated with completed Unit 2 modifications,
4. Removal of completed, expired or no longer required license conditions in the Unit 2 FOL.

An administrative change to License Condition 2.H is addressed for by the combination of relocation or removal of portions of the license condition. Accordingly, it is presented separately at the end of the Group 4 discussion.

1. Editorial Changes: (License Conditions Sections 1.B, 1.F, 1.H, 1.I, 2.A, 2.B(1,2,3,4,5), 2.C(1), 2.C(2), 2.C(22), 2.C(23), and 2.J)

The Final Safety Analysis Report (FSAR) originally served as the principal reference document in support of the North Anna Part 50 license applications. The original FSAR described methods for conforming with applicable NRC regulations and contains the technical information required by 10 CFR 50.34(b), including "information that describes the facility, presents the design bases and the limits on its operation, and presents the safety analyses of the structures, systems and components and of the facility as a whole." In 1980, the NRC issued the FSAR update rule, 10 CFR 50.71(e), which required all licensees to update their FSARs periodically to assure that the information provided is the latest material developed. Therefore, the Updated FSAR (UFSAR) represents the most current document available to describe the North Anna site and facility. The proposed changes to Sections 2.A, 2.B(2), and 2.C(23) of the Unit 2 FOL utilizes the UFSAR as the reference document for the North Anna site description, fire protection program description, and for the limitations on storage and amounts of special nuclear material used as reactor fuel.

Section 2.C(2) of the original FOL referred to the Technical Specifications contained in Appendices A and B. At that time Appendix B was titled the "Environmental Technical Specifications" (ETS). License Amendment No. 31 which was associated with the Radiological Effluent Technical Specifications, (RETS) removed Part I of the ETS and renamed Part II as the Environmental Protection Plan (EPP). The EPP was involved with the non-radiological aspects of the original ETS. Because of the name change, FOL Section 2.C(2) is no longer correctly stated. As an administrative correction to address this inconsistency, Section 2.C(2) has been split by this proposed change such that the current section only refers to the Technical Specifications of Appendix A. A new section is added which addresses the EPP contained in Appendix B. The new section, 2.C(5), is identical to Section 2.C(2) except for referencing the EPP rather than the Technical Specifications as the subject of the section. The amendment number stated in the proposed new paragraph is the latest amendment which revised the EPP.

No other specific background is provided for the rest of the editorial changes proposed. Cause and basis for change associated with typographical errors, punctuation, and grammatical inconsistencies are self evident.

## 2. Relocation of License Conditions:

License Condition 2.C(23) – This license condition regarding fire protection is relocated and renumbered to FOL Section 2.D. No technical changes are proposed. Since the fire protection program is specifically a requirement according to 10 CFR Part 50, Appendix R, it does not fit the definition of "Additional Conditions" and is relocated (and titled) to its own license section. This is consistent with the treatment of the security requirements of 10 CFR Part 73 given in FOL Section 2.E, Physical Protection. Relocation of this license condition within the FOL has no impact on the technical aspects of the item being moved.

License Condition 2.G – This license condition regarding equipment used for radiological effluent control is relocated and renumbered to a new FOL Section 2.C(3)(a) and identified as an additional license condition. The content of License Condition 2.G is identical to the Unit 1 FOL, Section 2.D(3)e which is part of a section titled "Additional Conditions." The Unit 2 FOL differs from the Unit 1 FOL in that the Unit 2 FOL does not have a specific section that is intended to contain additional conditions of the license. This proposed change to the Unit 2 FOL adds such a section (comparable to the Unit 1 FOL Section 2.D(3)). The introductory statement in this new section is identical to the words proposed in the Unit 1 FOL license "cleanup" which is being submitted jointly with this proposed change. Relocation of this license condition within the FOL to a specific section for "Additional Conditions" has no impact on the technical aspects of the item being moved.

License Condition 2.I and Appendix C – Currently, Section 2.I references FOL Appendix C to identify an additional license condition. Appendix C was added by License Amendment No. 195 dated August 26, 1998. In an effort to construct a clean and concise FOL document, the proposed change would move the single Appendix C requirement (identified as an additional condition) to within the new “Additional Conditions” section of the Unit 2 FOL as Section 2.C(3)(b). This supports the removal of the current Section 2.I. The content and applicability of this additional condition would be unchanged. This will eliminate the need for Appendix C and place all “additional conditions” in a common section of the Unit 2 FOL. This proposed change is consistent with the internal Nuclear Reactor Regulation Office Letter No. 803 dated December 30, 1999 which recommends the removal of a separate appendix for license conditions. Relocation of this license condition within the FOL has no impact on the technical aspects of the item being moved.

### 3. Completed Facility Modifications:

License Condition 2.F - License Amendment 93 dated December 5, 1988 incorporated License Condition 2.F into the North Anna Unit 2 FOL. License Condition 2.F authorizes the modification of the design of the reactor coolant pump (RCP) and steam generator supports in accordance with a submittal dated November 6, 1985 and supplemented by letters dated February 24, 1987, March 12, 1987, March 8, 1988, and June 10, 1988. These submittals provided the basis and supporting evaluation for the re-design of the primary coolant loop piping to remove eighteen large bore and six small bore snubbers associated with the RCPs and SGs. The re-design was implemented to take advantage of the then approved advanced fracture mechanics methods associated with Leak-Before-Break Technology as permitted by the General Design Criteria 4 (GDC 4) of Appendix A to 10 CFR Part 50. The amendment request was submitted since a revision to the primary coolant loop supports system was considered to be an Unreviewed Safety Question requiring NRC review and approval. The issuance of Amendment No. 107 documented the NRC review and approval of this facility modification.

Following the issuance of Amendment 93, the eighteen large bore and six small bore snubbers were removed during the 1989 spring refueling outage. Revision 11 to the UFSAR dated October 1, 1990 reflected the change in the design of the RCP and SG supports and the basis for the use of Leak-Before-Break in the re-design. Since the snubber modifications are complete, documented in the UFSAR, and are based on approved methods that are in compliance with the requirements of 10 CFR 50, Appendix A, GDC 4, License Condition 2.F is no longer necessary and is deleted by this proposed change to the North Anna Unit 2 FOL.



#### 4. Completed, Expired, or No Longer Needed License Conditions:

License Condition 2.C(2)(b) – License Amendment No. 18, dated February 18, 1982, granted a one time, two-week extension for the Unit 2 hydraulic snubber functional testing for the purpose of reaching the scheduled refueling outage. The refueling outage began on March 7, 1982 which was within the extension time period. License Condition 2.C(2)(b) has expired and is, therefore, removed by this proposed change.

License Condition 2.C(3) – This license condition applies to the Initial Startup Testing Program for Unit 2 which has been completed. The startup test program for Unit 2 was based on a series of letters and responses to NRC questions in mid-1979. These letters are acknowledged in the review chronology of Supplement No. 10 of the North Anna Safety Evaluation Report (NUREG-0053). Testing was completed and the Reactor Startup Report was submitted to the NRC on March 10, 1981, which addressed all tests in the startup program. On this basis, this proposed change removes License Condition 2.C(3) since the requirements have been met and the license condition is obsolete.

License Condition 2.C(4)c – This original license condition contained five separate requirements. License Amendment No. 90 dated May 26, 1988 deleted all but one. The remaining item involves the testing of the wide-range and narrow-range resistance temperature detectors (RTDs) on the Unit 2 reactor coolant system (RCS) until such time that the RTDs would be replaced with fully qualified components. These RTDs were replaced with qualified components in 1984. A design change that modified the RCS temperature monitoring system replaced them again in 1993. Today, both the wide-range and narrow-range RTDs are fully qualified, eliminating the need for the testing requirements of this license condition. Inspection Report No. 50-339-84-33 (item 9) identifies this license condition as “Closed.” On this basis, this proposed change removes License Condition 2.C(4) since the condition of replacement of components in item c has been met, closure has been documented, and the license condition no longer applies. All other sections of this license condition have been previously deleted.

License Condition 2.C(5) – This license condition involves the development of a surveillance program for the fiberglass spray pond piping and supports prior to the facility operating above 25% power. A letter from the NRC dated August 22, 1980 identified this license condition as resolved. Inspection Report No. 50-339-84-27 (Item 12) acknowledged this fact but held the license condition open in order to resolve some concerns on the spray array condition. Ultimately, the fiberglass spray array was replaced with steel and the open item was closed in Inspection Report no. 50-339-85-12 (Item 7). On this basis, this proposed change removes License Condition 2.C(5) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(6) – This license condition involves the performance of secondary flow stability tests that were to be completed prior to the facility operating above 90% power. Inspection Report No. 50-339-80-31 (Item 9) notes that this test was successfully performed in September, 1980 and consequently identifies this license condition as closed. A subsequent letter from the NRC dated October 17, 1980 also closed this license condition. On this basis, this proposed change removes License Condition 2.C(6) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(7) – This license condition involves transformer tap setting measurements and the demonstration that they were in agreement with analysis prior to the facility operating above 90% power. Inspection Report No. 50-339-80-33 (Item 5a) notes that this was successfully demonstrated by testing performed in September, 1980 and, consequently, identifies this license condition as closed. A subsequent letter from the NRC dated October 17, 1980 also closed this license condition. On this basis, this proposed change removes License Condition 2.C(7) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(8) – This license condition involves a visual inspection of feedwater hydraulic snubbers prior to the facility operating above 90% power. Inspection Report No. 50-339-80-33 (Item 5b) notes that this inspection was successfully performed in October, 1980 and, consequently, identifies this license condition as closed. A subsequent letter from the NRC dated October 17, 1980 also closed this license condition. On this basis, this proposed change removes License Condition 2.C(8) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(9) - FOL Section 2.C(9) is a licensing condition authorizing North Anna to perform steam generator moisture carryover testing which involves the use of a radioactive tracer element, Sodium-24. There are no planned moisture carryover tests for the Unit 2 steam generators. In the event that such a test is deemed necessary in the future, a non-radioactive chemical tracer would be used. Therefore, this specific authorization for use of Sodium-24 is no longer needed and License Condition 2.C(9) is removed by this proposed change.

License Condition 2.C(10) – This license condition involves the submittal of a design regarding a backup overcurrent protection system for containment electrical penetrations prior to October 11, 1980. Subsequently, the approved design was to be installed and operational prior to the startup following the second refueling outage for Unit 2. Inspection Report No. 50-339-83-11 (Item 9a) notes that this system was successfully installed and the license condition had been satisfied. On this basis, this proposed change removes License Condition 2.C(10) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(11) – This license condition involves the implementation of fire protection modifications identified in the NRC's February, 1979 SER for the fire protection program at North Anna. Modifications were to be completed by October 11, 1980 except for the alternate shutdown system which was to be modified by April 1, 1981. Inspection Report No. 50-339-80-39 was performed in December, 1980 and identified two violation of this license condition. Corrective actions were implemented and these violations were closed by Inspection Report No. 50-339-81-15.

In September, 1985, an audit of the Fire Protection Program and compliance with 10 CFR Part 50, Appendix R was performed at North Anna. This was documented in Inspection Report No. 50-339-85-24. One unresolved item related to the February 1979 SER was identified that was later resolved in Inspection Report No. 50-339-87-37.

License Amendment No. 123 dated September 13, 1990 implemented a new fire protection license condition, 2.C(23), which required the facility to "...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..." This amendment also removed fire protection related items from the facility Technical Specifications for inclusion into the UFSAR. This was requested in response to Generic Letters 86-10 and 88-12. These generic letters endorse the removal of the then current fire protection related license conditions and the addition of the generic license condition proposed in Generic Letter 86-10. Amendment No. 123 added the new condition, but did not remove license condition 2.C(11). On this basis, this proposed change removes license condition 2.C(11) since the requirements have been met, closure has been documented, and the license condition has effectively been superceded by the current License Condition 2.C(23).

License Condition 2.C(12) – This license condition involves the North Anna commitments to IE Bulletin 79-27 and is segmented into three parts corresponding to the various implementation schedules of the committed modifications.

2.C(12)(a) – The modifications identified in this segment of the license condition were to be completed prior to startup following a November 1, 1980 outage for fire protection modifications. Inspection Report No. 50-339-80-36 (Item 6) verified the completion of the modifications and closed this item.

2.C(12)(b) – The modifications identified in this segment of the license condition were to be completed within six month of the issuance of the FOL. Inspection Report Nos. 50-339-84-01 (Item 8) and 50-339-84-06 (Item 10b) verified the completion of the modifications and closed this item.

2.C(12)(c) – The modifications identified in this segment of the license condition were to be completed prior to restart following the first refueling outage. Inspection Report No. 50-339-82-14 (Item 8a) verified the completion of the modifications and closed this item.

Accordingly, this proposed change removes License Condition 2.C(12) in its entirety since the various requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(13) - This license condition involves the completion and submittal of a piping reanalysis which includes the seismic amplified response spectra no later than May 22,1981. A letter from the NRC dated May 29, 1981 acknowledges receipt of the reanalysis and closes this license condition. On this basis, this proposed change removes License Condition 2.C(13) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(14) – This license condition involves the submittal of plant specific information no later than six months from the issuance of the FOL to support a confirmatory analysis of the main steam line and feedwater line break analysis. A letter from the NRC dated March 6, 1981 acknowledges receipt of the plant specific information and closed this license condition. Subsequent requests for additional information were received and responses provided. By letter dated October 4, 1982, the NRC acknowledged that their audit analysis was complete and that the results were acceptable and that no further action was required of the licensee. On this basis, this proposed change removes License Condition 2.C(14) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(15) – This license condition is comprised of multiple items which were required to be completed prior to resuming power operation following the first refueling outage with the exception of items 2.C(15)(h)(2) and 2.C(15)(h)(4). These two license conditions were to be completed no later than the second refueling outage.

2.C(15)(a) – This license condition required the submittal of the detail of the inspection program for control rod guide thimble wear. A letter from the NRC dated April 21, 1981 acknowledged receipt of this information, the acceptability of the information, and the completion of the license condition requirements.

2.C(15)(b) – This license condition required inspection ports to be installed on the Unit 2 steam generators. A letter from the NRC dated April 22, 1981 acknowledged receipt of a commitment to install the inspection ports and closed the license condition. Inspection Report Nos. 50-339-82-14 (Item 8b) verified the completion of the modifications and also closed this item. Subsequently, in 1995 the Unit 2 steam generators were replaced. Inspection ports were part of the replacement steam generator design criteria.

2.C(15)(c) – This license condition has already been deleted by License Amendment No. 127 dated February 20, 1991.

2.C(15)(d) – This license condition involves the installation of leak test connections in the Residual Heat Removal system isolation valves. Inspection Report Nos. 50-339-82-14 (Item 8d) verified the completion of the modifications and closed this license condition.

2.C(15)(e) – This license condition requires North Anna to test the backup depressurization capability of the Power-Operated Relief Valves. Inspection Report Nos. 50-339-82-13 (Item 10.b(10)) verified the completion of the test, the acceptability of the results, and closed this license condition.

2.C(15)(f) – This license condition requires North Anna to submit the results of boron mixing and cooldown test performed under natural circulation conditions. A letter from the NRC dated April 22, 1981 acknowledged receipt of a test data and closed this license condition.

2.C(15)(g) – This license condition requires North Anna to retest all engineered safety features reset control actions to verify proper reset action. Inspection Report Nos. 50-339-82-14 (Item 8e) verified the completion of the retest, that the results were satisfactory, and closed this license condition.

2.C(15)(h)(1) – This license condition involves the completion of a formal program for electrical and mechanical maintenance training for all personnel responsible for maintenance and availability of the emergency diesel generators (EDGs). This training was required prior to the end of the first Unit 2 refueling outage to enhance the availability and reliability of the EDGs. Inspection Report No. 50-339-84-33 (Item 9) states that the inspector verified that this EDG maintenance training was completed. Accordingly, this license condition is closed.

The basis for this license condition is in NUREG-0053, Supplement No. 11, Section 8.3.2 which references NUREG/CR-0660, "Enhancement of Onsite Emergency Diesel Generator Reliability" and establishes the basis for the EDG maintenance program. The program is intended to be an on-going program, however, the license condition only addressed the scheduler aspect of its implementation. Following removal of this license condition, the administrative procedure regarding EDG maintenance will be revised to establish this program commitment based on NUREG-0053, Supplement 11, Section 8.3.2.

2.C(15)(h)(2) – This license condition requires that the diesel generator lube oil system be modified to provide continuous lubrication of the lower portions of the engine and provide partial filling of the upper lube oil supply header and lube oil booster/accumulator system during engine startup. A letter from the NRC dated June 15, 1983 acknowledged that the modifications were completed and closed this license condition. Inspection Report No. 50-339-83-11 (Item 9c) verified the completion of the modifications and also closed this license condition.

2.C(15)(h)(3) – This license condition requires the diesel generator operating procedures to be modified. Inspection Report No. 50-339-80-31 (Item 11) verifies that the procedures were modified, the modifications were acceptable, and closed this license condition.

2.C(15)(h)(4) – This license condition requires that the diesel generator fuel oil storage and transfer system be modified to include a separate high level alarm for each day tank and independent pressure switches for each pump. The license condition also requires North Anna to submit Technical Specifications changes to verify proper operation of these modifications. A letter from the NRC dated June 15, 1983 acknowledged that the modifications were completed, that the proposed Technical Specifications were not necessary, and closed the license condition. Inspection Report Nos. 50-339-83-11 (Item 9d) and 50-339-84-30 (Item 7) verified the completion of the modifications and also closed this license condition.

2.C(15)(h)(5) – This license condition involves the installation of an emergency fill line to the underground seven day fuel oil storage tank. Inspection Report No. 50-339-82-14 (Item 8f) verified the completion of the modification and closed this license condition.

2.C(15)(h)(6) – This license condition requires North Anna to either floor mount the control cabinet for the diesels or provide vibration tests that verify their operation during prolonged diesel operation. North Anna has floor mounted the control cabinets. Inspection Report No. 50-339-82-14 (Item 8g) verified the completion of the modification and closed this license condition.

Accordingly, this proposed change removes License Condition 2.C(15) in its entirety since the requirements of all section of this license condition have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(16) – This license condition involves the submittal of a schedule for compliance with Regulatory Guide 1.97 within 90 days of the issuance of a pending revision (Revision 2) of the document. A letter from the NRC dated March 31, 1981 acknowledges the receipt of the schedule submittal and its acceptability to the NRC. The letter closes this license condition. Inspection Report No. 50-339-84-33 (Item 9) also closes this license condition. On this basis, this proposed change removes License Condition 2.C(16) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(17) – This license condition involves the inspection and submittal of inspection results to the NRC regarding the low-pressure turbines. This inspection and the NRC concurrence with the finding was to be completed prior to the restart of the facility following the second refueling outage. Inspection Report No. 50-339-83-11 (Item 9e) confirms that the inspection was performed and that the turbine rotors were to be replaced. Accordingly, the Inspection Report states that the license condition is satisfied. A NRC letter dated June 20, 1983 also closes this license condition. On this basis, this proposed change removes License Condition 2.C(17) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(18) – This license condition involves the submittal to demonstrate reliable detection and evaluation of reactor vessel clad cracks within five years of the issuance of the FOL. The inservice inspection that complied with this requirement was performed during 1983. Inspection Report No. 50-339-85-06 (Item 16) documents that this license condition is closed. On this basis, this proposed change removes License Condition 2.C(18) since the requirements have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(19) – This license condition requires that North Anna perform radiation-thermal testing on the encapsulated saddle material used in the supplemental neutron shield within 5 years of the issuance of the Unit 2 FOL. Additionally, within six months of the testing, North Anna must evaluate the test results and submit this evaluation to the NRC. No specific reference in an NRC

letter or Inspection Report has been located which identifies this license condition as closed. However, the testing and subsequent evaluation were completed and the test results, along with the evaluation results, were submitted to the NRC by letter dated August 13, 1981 (Serial No. 276). As stated in the August 13, 1981 letter, the requirements of License Condition 2.C(19) have been met. On this basis, this proposed change removes License Condition 2.C(19) since the requirements have been met and the license condition is obsolete.

License Condition 2.C(20) – This license condition involves four items specifically identified as TMI Action Plan items carried into the license as open items identified in Supplement No. 11 to the North Anna SER (NUREG-0053).

2.C(20)(a) – This item involves an “evaluation of benefits” regarding the installation of data recording and data logging equipment as part of the control room design review (CRDR) effort per NUREG-0737, Item I.D.1. Inspection Report No. 50-339-84-33 (Item 9) identified that this license condition was open at that time. The inspection report also states, however, that the due date was being tracked as part of the licensee commitment to NUREG-0737, Supplement 1. North Anna submitted the results of the detailed CRDR in 1986 per the schedule commitments for NUREG-0737, Supplement 1. A letter from the NRC dated February 28, 1990 provided an SER and closed out the control room design review issue of NUREG-0737, Supplement 1. Although the specific requirements of License Condition 2.C(20)(a) are only a small portion of the scope of the detailed CRDR, completion and acceptance of the detailed CRDR meets the requirements of this license condition.

2.C(20)(b) – This item required the incorporation of low power physics tests results (specifically natural circulation cooldown and boron mixing) into the simulator located at Surry Power Station within one year from the issuance of the FOL. Additionally, a report to the NRC to describe the resultant simulator changes was also required. Inspection Report No. 50-339-80-29 (Item 11) acknowledged that the testing was performed. A letter from the NRC dated May 4, 1982, acknowledged the completion of all requirements set forth in this license condition and closed this item.

2.C(20)(c) – This item involves the performance of an endurance test of the steam driven auxiliary feedwater pump after steam to run the test would be available. A letter from the NRC dated December 9, 1980 acknowledged the completion of the test and all requirements set forth in this license condition, and closed this license condition.



2.C(20)(d) – The North Anna SER, NUREG-0053, Supplement No. 12 (Item 22.2, III.A.1.1) documented approval of the emergency plan in effect at the time of the issuance of the Unit 2 FOL (August 21, 1980). This license condition required North Anna to “maintain in effect” a plan that met the same standards and criteria approved by the SER. The license condition specifically included an emergency operation facility as part of the plan.

On November 3, 1980, a revision to the Code of Federal Regulation regarding emergency preparedness went into effect. The revisions affected 10 CFR Part 50, Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities,” and added new Sections 10 CFR 50.47, “Emergency Plans,” and 10 CFR 50.54q. Pursuant to Section 2.C of the Unit 2 FOL, these new regulations are applicable to the Unit 2 FOL. 10 CFR 50.54q states that “A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in Appendix E of this part.” 10 CFR 50.47(b) contains the minimum requirements for an emergency plan which includes support facilities. As documented in the Federal Register Notice (45 FR 55409) that implemented 10 CFR 50.47, these requirements are basically derived from the planning objectives of NUREG-0654. Therefore, the requirements set forth in the Code of Federal Regulations supercedes the need for License Condition 2.C(20)(d).

Accordingly, this proposed change removes License Condition 2.C(20) in its entirety since the requirements of all sections of this license condition have been met or superceded and the license condition is obsolete.

License Condition 2.C(21) – This license condition involves items specifically identified as TMI Action Plan Dated Conditions carried into the license as open items identified in Supplement No. 11 to the North Anna SER (NUREG-0053).

2.C(21)(a) – This license condition involves the training requirements for the Shift Technical Advisor (NUREG-0737, Item I.A.1.1). A letter from the NRC dated January 25, 1982 closed NUREG-0737, Item I.A.1.1. Inspection Report 50-339-84-33 also closed this license condition.

2.C(21)(b) – This license condition involves the administration of training programs for licensed operators (NUREG-0737, Item I.A.2.3). Inspection Report Nos. 50-339-80-31, 50-339-80-6, and 50-339-83-11 address inspections for completion of this item. Inspection Report No. 50-339-84-01 (Item 8) closed this NUREG item. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(c) – This license condition involves the installation, procedural guidelines, and analytical basis for the reactor vessel head vent system (NUREG-0737, Item II.B.1). Inspection Report No. 50-339-84-12 (Item 9) confirmed that the installation and procedures for the vent system were completed. Inspection Report No. 50-339-85-12 (Item 12a) confirms that the vent system was operable and closed this NUREG item. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(d) – This license condition involves plant shielding evaluations and necessary modifications to assure access to vital areas in post-accident conditions (NUREG-0737, Item II.B.2). Inspection Report No. 50-339-83-22 (Item 11) evaluated the plant shielding study and closed Item II.B.2. A letter from the NRC dated November 14, 1983 provided an SER for the plant shielding analysis and closed this NUREG item. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(e) – This license condition involves post-accident sampling capability (NUREG-0737, Item II.B.3). Inspection Report No. 50-339-83-30 (Item 9) evaluated the post-accident sampling system and closed this NUREG item. Some inspector follow-up items were identified in this inspection report, but all involved system improvements and did not affect the closure of Item II.B.3. A letter from the NRC dated February 27, 1984 provided an SER for the post-accident sampling system and closed NUREG-0737, Item II.B.3. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(f) – This license condition involves the qualification of the pressurizer safety valves and power-operated relief valves (PORVs) (NUREG-0737, Item II.D.1). A letter from the NRC dated March 21, 1989 provided an SER for NUREG-0737, Item II.D.1, that stated that all requirements were met except for one deficiency. The deficiency was that neither the PORV control circuits or the PORV block valves were environmentally qualified. The NRC letter stated that there would be no further action on this item and that the licensee was to “resolve” the noted deficiency in a timely manner and notify the NRC of the resolution. Accordingly the NRC closed their review of this item for both North Anna Units 1 and 2. In a letter to the NRC dated October 15, 1990 (Serial No. 90-606) North Anna provided the requested resolution by stating the position that the environmental qualification of these components was not required based on the information in Generic Letter 90-06 titled, “Resolution of Generic Issue 70, ‘Power-Operated Relief Valve and Block Valve Reliability’ and Generic Issue 94, ‘Additional Low-Temperature Overpressure Protection for Light-Water Reactors.’” Since the NRC had no further follow-up actions planned and North Anna provided the requested notification of the resolution of the noted deficiency, License Condition 2.C(21)(f) has been met. Additionally, a change to the North Anna Unit 2 Technical Specifications was made in response to Generic Letter 90-06 which was issued by License Amendment No. 170 dated October 5, 1994.

The Safety Evaluation for Amendment No. 170 addressed the reliability of the PORVs and their block valves but made no mention of the requirement from NUREG-0737, Item II.D.1 to environmentally qualify these components.

2.C(21)(g) – This license condition involves the safety grade indication for feedwater flow (NUREG-0737, Item II.E.1.2). A letter from NRC dated November 30, 1981 states that the safety grade requirements of this NUREG-0737 item are met and the item is considered closed for both North Anna units. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(h) – This license condition involves the dedicated containment penetration for combustible gas (hydrogen) control in the post-accident condition (NUREG-0737, Item II.E.4.1). Inspection Report No. 50-339-82-04 (Item 8) concluded that the installed system met the requirements of Item II.E.4.1 and that this NUREG item was closed. Inspection Report 50-339-84-33 closed this license condition.

2.C(21)(i) – This license condition involves the installation of additional accident monitoring instrumentation as presented in NUREG-0737, Item II.F.1. The closure of each of the items is discussed below. Inspection Report 50-339-84-33 closed this license condition except for Item II.F.1.1 which was closed as noted below.

Monitoring instrumentation for noble gas effluents at each potential release point (II.F.1.1) and continuous sampling for radioiodine and particulates (II.F.1.2) were inspected and closed in Inspection Report No. 50-339-87-08 (Item 6).

Monitoring instrumentation for containment high range radiation (II.F.1.3) was inspected and closed in Inspection Report No. 50-339-84-07 (Item 9).

Monitoring instrumentation for containment pressure (II.F.1.4), containment water level (II.F.1.5), and containment atmosphere hydrogen concentration (II.F.1.6) were all inspected and closed in Inspection Report No. 50-339-84-06. A follow-up item regarding the hydrogen concentration was closed in Inspection Report No. 50-339-84-09. A letter from NRC dated April 21, 1983 acknowledged the acceptability of the installed monitoring instrumentation and provided an SER to close Items II.F.1.4, II.F.1.5, and II.F.1.6.

2.C(21)(j) – This license condition involves the installation and demonstration of additional inadequate core cooling instrumentation (NUREG-0737, Item II.F.2). The North Anna SER (NUREG-0053) addressed the issue of inadequate core cooling instrumentation in Section 22.3 – “II.F.2.” The SER concluded that the installed system was acceptable pending the installation of the reactor vessel level indication system. Inspection Report No. 50-339-85-12 (Item 12b) closed the issue related to reactor vessel level instruments. Inspection Report 50-339-84-33 closed this license condition.

Accordingly, this proposed change removes License Condition 2.C(21) in its entirety since the requirements of all sections of this license condition have been met, closure has been documented, and the license condition is obsolete.

License Condition 2.C(24) – This license condition was added by License Amendment No. 185 dated May 9, 1997. Amendment No. 185 addressed the insertion of 4 demonstration fuel assemblies (containing advanced zirconium based alloys) in either the Unit 1 or Unit 2 reactor cores for up to three fuel cycles. This amendment also modified the Design Features (Section 5.3.1) of the Unit 2 Technical Specifications to account for the presence of these demonstration fuel assemblies. The demonstration assemblies were placed in Unit 1 and are currently in their third fuel cycle. Therefore, there are no plans (or need) to place demonstration assemblies into the Unit 2 reactor core. On this basis, this proposed change removes License Condition 2.C(24). The corresponding Design Features statement is not removed, however. The ITS template document, NUREG-1431, retains this statement regarding lead test assemblies as a generic statement in the Design Features, Fuel Assemblies section of ITS.

License Condition 2.D – This license condition involves an exemption to Appendix J of 10 CFR Part 50 regarding leak testing of the containment personnel airlock. The exemption was to allow leak testing of the airlock every three days instead of after every entry which was the requirement at the time of issuance (August 21, 1980) of the Unit 2 FOL. This license condition and a footnote to Technical Specification 3.6.1.3 acknowledged this exemption. Subsequently, 10 CFR Part 50, Appendix J was revised on September 22, 1980 (one month following the issuance of the FOL) to incorporate the testing requirement of every three days that had been granted by the exemption. Later, License Amendment No. 177 dated February 9, 1996 removed the footnotes to Technical Specification 3.6.1.3 but did not remove this license condition. Accordingly, the proposed change removes License condition 2.D since the exemption is no longer required.

NOTE: The following discussion applies to a purely administrative change resulting primarily from the proposed activities previously discussed.

License Condition 2.H – This license condition involves the reportability of violations of various license condition of the Unit 2 FOL. The reporting requirements stated are identical to the “Prompt Notification” requirements that were issued with the original license Technical Specification 6.9.1.8. Generic Letter 83-43, “Reporting Requirements of 10 CFR Part 50, Sections 50.72 and 50.73, and Standard Technical Specifications,” requested that licensees revise their Technical Specifications to conform with the revised reporting requirements of the subject CFR sections. License Amendment No. 47 dated February 1, 1985 implemented the requested Technical Specifications change and removed

the comparable "Prompt Notification" requirements in the Unit 2 Technical Specifications. Although Amendment No. 47 implemented the "LER Rule" and removed the "Prompt Notification" from the Technical Specification, the guidance document for the implementation of the LER Rule (NUREG-1022) clearly states that the LER Rule is applicable to Technical Specifications only and that existing license conditions pertaining to prompt notification are unaffected by the rule.

This license condition would require modification to reference only those license conditions that remain following implementation of this proposed change to remove obsolete license conditions. However, the only remaining license condition is License Condition 2.G (relocated as 2.C(3)(a)). Since the modified license condition would correspond only to a single license condition item, it is proposed that the content of this license condition be combined with the remaining applicable license condition. The following is a summary explanation of the removal of all other license conditions from the applicability of License Condition 2.H:

- As proposed in this change request, the License Conditions 2.C(3) through 2.C(21) are to be removed since they have been completed and are now obsolete.
- The original Section 2.F involved environmental issues and were removed with the implementation of Amendment No. 3 since the stipulation of the original requirement was contained within the Environmental Protection Plan, Appendix B to the FOL. Subsequent license conditions (regarding different subjects) designated as Section 2.F contained no discussion of the applicability of the additional reporting requirements of License Condition 2.H. Additionally, the current License Condition 2.F is being removed.
- FOL Section 2.E has been updated due to changing physical security requirements. The original Section 2.E required that the licensee "maintain in effect and implement all provisions of the NRC-approved Safeguard Contingency Plan identified as Chapter 8 in the North Anna Power Station, Units 1 and 2, Security Plan." License Condition 2.H required the reporting of violations to various license conditions including Section 2.E. Therefore, the original intent of Section 2.H would be to provide a report to the NRC if the Safeguards Contingency Plan was not maintained or properly implemented.

In 1987, significant revisions/additions to the Code of Federal Regulations regarding physical security were implemented which included new reporting requirements for safeguard events. License Condition 2.E (which was implemented by License Amendment No. 87 dated May 9, 1988) now references the approved Physical Security, Safeguards Contingency, and Guard Training and Qualification Plans. These plans have been revised pursuant to provisions of the Miscellaneous Amendments and Search

Requirements revisions to 10 CFR 73.55. The reporting requirements for safeguards events are specifically contained within 10 CFR 73.71 (and 10 CFR Part 73, Appendix G) which applies, as appropriate, to licensees subject to 10 CFR 73.55. Therefore, the physical security related reporting requirements are covered in these regulations and represent a more comprehensive set of requirements than was originally required by License Condition 2.H and the original License Condition 2.E.

North Anna is committed to the reporting requirements of the regulations through the security program plans submitted, "approved," and documented in the current License Condition 2.E. On this basis, the security related reporting requirements associated with License Condition 2.H have been superceded and are removed from License Condition 2.H by this proposed change.

### **SPECIFIC CHANGES**

As previously specified, the proposed administrative changes to the North Anna Unit 2 Facility Operating License, NPF-7, would remove license conditions that no longer apply or that could be relocated within the FOL to more appropriate locations. Additionally, various editorial changes to the FOL are proposed for consistency.

The specific changes proposed are as follows:

- Correct the punctuation (use of commas) in FOL Section 1.B.
- Correct the punctuation (reverse the comma and quote) in FOL Section 1.F.
- Correct the punctuation (use of commas) in FOL Section 1.H.
- Correct the punctuation (use of commas) in FOL Section 1.I.
- Remove the phrase "amendment to the" in FOL Section 2. Also, add the word "Updated" to the Final Safety Analysis Report title and remove the reference to "as supplemented and amended (Amendments 17 through 69)."
- Correct the punctuation (use of commas) in FOL Section 2.B(1).
- Correct the punctuation (use of commas) in FOL Section 2.B(2). Also, add the word "Updated" to the Final Safety Analysis Report title and remove the reference to "as supplemented and amended."
- Correct the punctuation (use of commas) in FOL Section 2.B(3).
- Correct the punctuation (use of commas) in FOL Section 2.B(4).

- Correct the punctuation (use of commas) in FOL Section 2.B(5).
- Capitalize “Veeco” in FOL Section 2.C(1) for consistency within the FOL.
- Revise FOL Section 2.C(2) by replacing the phrase “Appendices A and B” with “Appendix A.”
- Delete FOL Section 2.C(2)(b).
- Replace the current title and text of FOL Section 2.C(3) with the following:

2.C(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the condition or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment supported by a favorable evaluation by the Commission:

- Add FOL Section 2.C(3)(a) taken from the current FOL Section 2.G. Add the following text to this item:

VEPCO shall report any violations of this requirement within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.

- Add FOL Section 2.C(3)(b) taken from the Additional Condition stated in the current FOL Appendix C.
- Delete FOL Sections 2.C(4) through 2.C(21).
- Renumber FOL Section 2.C(22) to 2.C(4). Also, replace the word “license” with “licensee” and correct the punctuation (commas).
- Add Section 2.C(5) as follows:

2.C(5) Environmental Protection Plan

The Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 178, is hereby incorporated in the license. The licensee shall operate the facility in accordance with the Environmental Protection Plan.

- Renumber FOL Section 2.C(23) as Section 2.D. Also, add the word “Updated” to the Final Safety Analysis Report title.
- Delete FOL Section 2.C(24).
- Delete FOL Section 2.D.
- Delete FOL Section 2.F.
- Move the text of FOL Section 2.G to the previously identified new FOL Section 2.C(3)(a).
- Delete FOL Section 2.H.
- Delete FOL Section 2.I.
- Renumber FOL Section 2.J to Section 2.F.
- Replace the attachment listing with the following specific listing:
  - Appendix A, Technical Specifications
  - Appendix B, Environmental Protection Plan
- Delete FOL Appendix C cover page. Move the single “Additional Condition” from FOL Appendix C to the previously identified new FOL Section 2.C(3)(b).

### **SAFETY SIGNIFICANCE**

The proposed administrative change to the North Anna Unit 2 Facility Operating License makes minor editorial corrections, relocates three license conditions within the FOL, and removes completed, redundant, expired, or otherwise non-applicable license conditions. This proposed change provides a resulting license document that does not contain unnecessary or obsolete requirements and that is directly applicable in all aspects to the current plant design and licensing bases. There is no safety significance associated with this proposed change since the change does not alter any currently applicable Facility Operating License requirements. Accordingly, the current North Anna Unit 2 licensing and design bases are unchanged, and an unreviewed safety question does not exist.



**ATTACHMENT 2**

**MARK-UP OF OPERATING LICENSES AND TECHNICAL SPECIFICATIONS PAGES**

**VIRGINIA ELECTRIC AND POWER COMPANY  
(DOMINION)  
NORTH ANNA POWER STATION UNIT 2**

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

FACILITY OPERATING LICENSE

Amendment No. 33  
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for license filed by Virginia Electric and Power Company (VEPCO) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the North Anna Power Station Unit No. 2 (facility) has been substantially completed in conformity with Construction Permit No. CPPR-78 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I;
  - E. VEPCO is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. VEPCO and the Old Dominion Electric Cooperative have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations;

- G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License NPF-7, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
- I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70; and
- J. The Old Dominion Electric Cooperative is a partial financial owner of the facility and will not operate the facility.

2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on August 20, 1980, the License for Fuel-Loading and Low-Power Testing issued on April 11, 1980 is superseded by Facility Operating License NPF-7 hereby issued to Virginia Electric and Power Company (VEPCO) and the Old Dominion Electric Cooperative (ODEC) to read as follows:

A. This ~~amendment to the~~ license applies to the North Anna Power Station, Unit No. 2, a pressurized water nuclear reactor and associated equipment (the facility), owned by VEPCO and ODEC. The facility is located near Mineral in Louisa County, Virginia and is described in VEPCO's Final Safety Analysis Report as ~~supplemented and amended (Amendments 17 through 69)~~ and Environmental Report as supplemented and amended (Supplements 1 through 4).

Updated

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, VEPCO and ODEC to possess and VEPCO to use and operate the facility at the designated location in Louisa County, Virginia, in accordance with the limitations set forth in this license;
- (2) Pursuant to the Act and 10 CFR Part 70, VEPCO to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in VEPCO's Final Safety Analysis Report ~~as supplemented and amended;~~ Updated
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material, without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

~~Veeco~~ <sup>VEPCO</sup> is authorized to operate the facility at steady state reactor core power levels not in excess of 2893 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in ~~Appendices A and B~~ <sup>Appendix</sup> as revised through Amendment No. 205, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

~~(b) The current surveillance period for Surveillance Requirement 4.7.10.c may be extended beyond the time limit specified by Technical Specification 4.0.2.a. The required surveillance shall be completed prior to startup after the first refueling outage. The plant shall not be operated in Modes 1, 2, 3 or 4 until Surveillance Requirement 4.7.10.c has been completed. Upon accomplishment of the surveillance, the provisions of 4.0.2.a shall apply.~~

**Add** → (3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the condition or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission:

- Add** →
- (a) INSERT A From p. 13
  - INSERT B From p. 13
  - (b) INSERT C from Appendix C

(3) Initial Test Program

VEPCO shall conduct the post-fuel loading initial test program (set forth in Section 14 of VEPCO's Final Safety Analysis Report, as amended) without making any major modifications of this program unless modifications have been identified and have received prior Commission approval. Major modifications are defined as:

- a. Elimination of any test identified in Section 14 of VEPCO's Final Safety Analysis Report, as amended, as essential;
- b. Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of VEPCO's Final Safety Analysis Report, as amended, as essential;
- c. Performance of any test at a power level different from there described; and
- d. Failure to complete any tests included in the described program (planned or scheduled for power levels up to the authorized power level).

(4) VEPCO shall take the following remedial actions, or alternative actions, acceptable to the Commission, with regard to the environmental qualification requirements for Class IE equipment:

- a. Deleted by Amendment No. 90.
- b. Deleted by Amendment No. 90.
- c. VEPCO shall test the narrow and wide-range resistance temperature detectors for the reactor coolant system by the Loop Current Step Response method each calendar quarter until a long-term qualified resistance temperature detector is available. Resistance temperature detectors will be replaced if unsatisfactory Loop Current Step Response test results are acquired.

For narrow and wide-range resistance temperature detectors not replaced at a given refueling outage, VEPCO shall assure that resistance temperature detector cable connectors are adequately sealed and shall use the Arrhenius methodology to affirm that the resistance temperature detector material has not endured significant degradation due to environmental parameters. The results of this affirmation shall be added to central environmental qualification files.

~~(d) Deleted by Amendment No. 90.~~

~~(e) Deleted by Amendment No. 90.~~

(5) Prior to operating the facility at a power level above 25 percent, VEPCO shall develop a surveillance program for fiberglass spray pond piping and supports that is in compliance with the regulatory position in Revision 2 of Regulatory Guide 1.72, or an alternative position acceptable to the Commission.

(6) Prior to operating the facility at a power level above 90 percent, VEPCO shall perform secondary flow stability tests which have been approved by the Commission. VEPCO shall provide at least 24 hours notification to Office of Inspection and Enforcement (OIE) prior to conducting such approved tests so that these tests may be witnessed by the Commission.

The exceptions to Technical Specifications 3.3.2.1(a), 3.3.2.1(b), 3.5.2, 3.7.1.2, and 3.7.1.3, issued with Amendment No. 2 to the Fuel Load and Low-Power Testing License dated August 1980 shall be in effect until these are completed.

(7) Prior to operating the facility at a power level above 90 percent, VEPCO shall demonstrate to the satisfaction of the NRC that the actual in-plant measurements of transformer tap settings are in agreement with their analysis.

(8) Prior to operating above 90 percent power, VEPCO shall complete the visual verification of operability of the 37 feedwater system hydraulic snubbers, designated in VEPCO's letter dated August 7, 1980, at operating temperature to the satisfaction of the OIE.

(9) VEPCO is authorized to perform steam generator moisture carryover studies at the North Anna Station. These studies involve the use of an aqueous tracer solution of two (2) curies of sodium-24. The licensee personnel will be in charge of conducting these studies and be knowledgeable in the procedures. VEPCO will impose personnel exposure limits, posting, and survey requirements in conformance with those in 10 CFR Part 20 to minimize personnel exposure and contamination during the studies. Radiological controls will be established in the areas of the chemical feed, feedwater, steam,

condensate and sampling systems where the presence of the radioactive tracer is expected to warrant such controls. VEPCO will take special precautions to minimize radiation exposure and contamination during both the handling of the radioactive tracer prior to injection and the taking of system samples following injection of the tracer. VEPCO will ensure that all regulatory requirements for liquid discharge are met during disposal of all sampling effluents and when reestablishing continuous blowdown from the steam generators after completion of the studies.

(10) No later than October 11, 1980, VEPCO shall submit a design for the backup overcurrent protection system for containment electrical penetrations for Commission review and approval. The backup system shall be installed and operational prior to resuming power operation following the second refueling outage.

(11) No later than November 1, 1980, VEPCO shall implement the fire protection modifications as described in the Commission Safety Evaluation Report, "Fire Protection Program for North Anna Power Station, Units 1 and 2", dated February 1979 (see Amendment No. 8 to NPF-4 for the North Anna Power Station, Unit No. 1) except implementation of the modification of the alternate shutdown system shall be implemented no later than April 1, 1981.

(12) VEPCO shall implement the following modifications related to IE Bulletin 79-27 "Loss of Non-Class IE Instrumentation and Control Power System Bus During Operation" as specified in VEPCO's letters, dated May 30 and July 9, 1980 on the following schedule:

- (a) Prior to startup following the November 1, 1980 outage for Five Protection Modifications:
  - Item 2 - Alternate Feed for Annunciators
  - Item 3, 4, 7 and 8: Alternate Power Supply for Vital SOV and Vital Instrument Panels.
  - Item 9 and 10: Loss of Voltage for Semi-Vital Buses
- (b) Within six months from date of issuance of this license:
  - Item 6: Alternate Power to Gaitronics
  - Items 11, 12, 13 and 14: Change to Voltage Indication - 125 VDC Buses
- (c) Prior to startup following the first refueling outage:
  - Items 1 and 5: Diverse Power Supply for T<sub>b</sub> and T<sub>c</sub>

(13) No later than May 22, 1981, VEPCO is required to complete to the satisfaction of the Commission its piping reanalysis which includes the seismic amplified response spectra identified in VEPCO's letter of June 6, 1980, concerning Units 1 and 2, and submit the analysis to the Commission.

(14) No later than six months from the date of issuance of this license, VEPCO shall supply, to the satisfaction of the NRC, the plant specific information needed to confirm the validity of the main steam line and feedwater line break analyses.



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(15) Prior to resuming power operation following the first refueling outage except as specifically noted in paragraphs (h)(2) and (h)(4) below:

- (a) VEPCO shall submit the details of the inspection program for control rod guide thimble tube wall wear for Commission approval;
- (b) VEPCO shall install inspection ports in the steam generators;
- (c) Deleted. §
- (d) VEPCO shall install leak test connections on the RHR isolation valves;
- (e) VEPCO shall demonstrate by test the backup depressurization capability of the PORV's using the same shutdown procedure as described in VEPCO's procedure 2-OP-3.2 dated 7/23/80;
- (f) VEPCO shall submit for Commission approval, the results of the tests applicable to North Anna Power Station, Unit 2, of a study concerning mixing of added borated water and cooldown under natural circulation conditions;
- (g) VEPCO shall retest all engineered safety features reset control actions to verify proper reset action; and
- (h) VEPCO shall implement the following design and procedural modifications with respect to diesel generator reliability;
  - (1) Complete a formal training program for all the mechanical and electrical maintenance and quality control personnel, including supervisors, who are responsible for the maintenance and availability of the diesel generators. The depth and quality of this training program shall be at least equivalent to that of training programs normally conducted by major diesel engine manufacturers;
  - (2) The lube oil system shall be modified to the manufacturer's recommendations for providing continuous lubrication of the lower portions of the engine. The modifications shall further provide for partial filling of the upper lube oil supply header and a lube oil booster/accumulator system which will force oil into the upper lube oil header during engine startup. The modifications shall be completed no later than the second refueling outage.

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- 3) The diesel generator operating procedures shall be modified to require loading the engine up to 50 to 75 percent of full load for one hour after eight hours of continuous no load operation;
- 4) The fuel oil storage and transfer system shall be modified to include the installation of a separate high level alarm for each day tank, the installation of independent pressure switches for each pump which will be set to stop the pumps on high day tank level, and the submittal of Technical Specifications verifying proper operation of all transfer pump control switches and day tank high level alarms. Non-qualified pressure switches will be installed by October 31, 1982. These switches are being qualified by the manufacturer. Should these switches fail qualification tests, the non-qualified switches shall be replaced with qualified units. The modifications shall be completed no later than the second refueling outage.
- 5) Each seven day fuel oil storage tank shall be provided with a seismic Category I, tornado missile, and flood protected emergency fill line. Each fill line shall have a shut-off valve, a strainer, and a truck fill connection consisting of a hose coupling with cap and chain; and
- 6) With respect to vibration of Instruments and Controls, VEPCO shall either provide test results and results of analyses which qualify the engine skid mounted control cubicles for the severe vibrational stress that will be encountered during engine operation, or floor mount the skid mounted panels and control equipment presently furnished with the diesel generators.

(16) Within 90 days following issuance of the pending revision of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident", VEPCO shall provide a schedule acceptable to the NRC for bringing this facility in compliance with Regulatory Guide 1.97, as revised.

(17) Prior to resuming power operation following the second refueling outage, VEPCO shall subject the low pressure turbines to an inservice inspection. The inspection shall consist of visual and volumetric examinations. The visual examination shall be applied to 100 percent of all the accessible surface of the rotors, discs and blading. The volumetric examination shall use an ultrasonic technique to fully examine the bore and keyway region of the discs in each low pressure turbine.

The inspection results and evaluation of this inservice inspection shall be reported to the NRC and shall be accepted by the Commission prior to startup following the second refueling outage.

The subject of the generation of turbine missiles for this facility is pending before the Atomic Safety and Licensing Appeal Board. The license condition imposed herein shall be subject to modification based on the resolution of this pending turbine missile issue.

(18) No later than five years from the date of issuance of this license, VEPCO shall demonstrate to the satisfaction of the Commission that its examination techniques provide a reliable means of detection and

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evaluation of individual reactor vessel nozzle clad cracks should they grow larger than the acceptance standards contained in Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code.

(19) No later than five years from the date of issuance of this license, VEPCO shall perform radiation-thermal testing of the encapsulated saddle material used for shielding, and within six months thereafter, VEPCO shall evaluate the testing and provide the Commission with results of the evaluation.

(20) THI Action Plan Conditions

Each of the following conditions references the appropriate section of Supplement No. 11 to the Safety Evaluation Report (NUREG-0053) for the North Anna Power Station, Unit 2, dated August 1980.

(a) Control Room Design Review (Section 22.2 Item I.D.1)

Within the schedule requirements of NUREG-0737, VEPCO shall submit an evaluation of the benefits of installing data recording and logging equipment in the control room to correct deficiencies associated with the trending of important parameters on strip chart recorders in use at most nuclear power plants, as part of their one-year control room design review.

(b) Training During Low-Power Testing (Section 22.2 Item I.G.1)

No later than one year from the date of issuance of this license, VEPCO shall complete the evaluation of the results of the low power test program for incorporation into the Surry Power Station simulator. Also within one year, VEPCO shall provide a report to the NRC describing changes made to the simulator model as a result of the tests.

VEPCO shall perform a boron mixing and cooldown test using decay heat within 31 days after burnup sufficient to produce at least 10 hours of decay head equivalent to one percent of rated thermal power.

(c) Auxiliary Feedwater System Reliability Evaluation (Section 22.2 Item II.E.1.1)

With respect to the AFW Endurance Test, VEPCO shall test the steam turbine driven pump after unit startup when steam will be available in accordance with VEPCO letter, dated July 11, 1980.

(d) Upgrade Emergency Preparedness (Section 22.2 Item III.A.1.1)

VEPCO shall maintain in effect an emergency plan that meets:

- (i) Regulatory requirement of 10 CFR Part 50, Appendix E, and
- (ii) The operator Planning Objectives of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Preparedness in Support of Nuclear Power Plants," January 1980.

This plan shall provide an emergency operations facility as a base for coordinating onsite activities and interface with State, local, and Federal agencies.

No later than 90 days from the date of issuance of this license, VEPCO shall report to the NRC the status of any items related to emergency preparedness identified by FEMA or the NRC as requiring further action.

(21) TMI Action Plan Dated Conditions

Each of the following conditions references the appropriate section of Supplement No. 11 to the Safety Evaluation Report (NUREG-0053) for the North Anna Power Station, dated August 1980, and shall be completed to the satisfaction of the NRC.

(a) Shift Technical Advisor (Section 22.3 Item I.A.1.1)

During 1980, at least one Senior Reactor Operator (SRO) or an experienced degreed engineer who is a member of the Site Safety Engineering Staff shall be designated as the Shift Technical Advisor (STA).

All STA's shall be fully trained no later than by January 1, 1981. During 1980, all SRO's designated as STA's shall complete eight weeks of mathematics, physics, thermodynamics, fluid flow, heat transfer, instrumentation and control, chemistry, materials and structural analysis. Following this, STA's shall receive two weeks of design review and five weeks of systems dynamic behavior including transient analysis and techniques for transient identification. The training program for engineers designated as STA's shall consist of 3 portions: academic training in thermodynamics, fluid flow, heat transfer and reactor theory; specific instruction in plant systems and Technical Specifications; and finally, simulator training.

The training shall be taught at the college level and equivalent to about 60 semester hours.

(b) Administration of Training Programs for License Operators (Section 22.3 Item I.A.2.3)

All license personnel and nuclear training coordinators at the facility are required to participate in the Requalification Program as specified in VEPCO's letter dated March 28, 1980.

(c) Reactor Coolant System Vents (Section 22.2 Item II.B.1)

VEPCO shall submit procedural guidelines and analytical bases for the reactor coolant system vents. The reactor coolant system vents shall be installed no later than the implementation schedule of NUREG-0737.

(d) Plant Shielding (Section 22.3 Item II.B.2)

VEPCO shall complete modifications to assure adequate access to vital areas and protection of safety equipment following an accident resulting in a degraded core no later than January 1, 1983.

(e) Post-Accident Sampling (Section 22.3 Item II.B.3)

VEPCO shall complete corrective actions needed to provide the capability to promptly obtain and perform radioisotopic and chemical analysis of reactor coolant and containment atmosphere samples under degraded core conditions without excessive exposure at the first outage of sufficient duration but no later than January 1, 1983.

(f) Relief and Safety Valve Test Requirements (Section 22.3 Item II.D.1)

VEPCO shall complete tests to qualify the reactor coolant system relief and safety valves under expected operating conditions for design basis transients and accidents no later than July 1, 1982.

(g) Auxiliary Feedwater Initiation and Indication (Section 22.3 Item II.E.1.2)

VEPCO shall implement the modification to upgrade the safety-grade indications of AFW flow from semi-vital bus power to vital bus power no later than January 1, 1981.

(h) Containment Dedicated Penetrations (Section 22.3 Item II.E.4.1)

VEPCO shall install redundant remote actuated valves in series to isolate the containment vacuum pumps from the combustible gas control system. VEPCO shall also convert the manual valves in the hydrogen recombiner piping to remote manual actuation no later than the implementation schedule of NUREG-0737.

(i) Additional Accident Monitoring Instrumentation (Section 22.3 Item II.E.1)

VEPCO shall install and demonstrate the operability of instruments for continuous indication in the control room of the following variables. Each item shall be completed by the specified date in the condition:

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- (i) Containment pressure from 0 psia to three times the design pressure of the containment no later than the implementation schedule of NUREG-0737;
- (ii) Containment water level from (1) the bottom to the top of the containment sump, and (2) the bottom of the containment to a level equivalent to 600,000 gallons of water no later than the implementation schedule of NUREG-0737.
- (iii) Containment atmosphere hydrogen concentration from 0 to 10 volume percent shall be installed no later than January 1, 1983, and the hydrogen sampling system to be used in the interim shall remain in effect until January 1, 1983;
- (iv) Containment radiation up to  $10^7$  R/hr. no later than the second refueling outage.
- (v) Noble gas effluent from each potential release point from normal concentrations to  $10^5$  uCi/cc (Xe-133) no later than January 1, 1983.

VEPCO shall also provide capability for continuous sampling and for onsite analysis of the radiiodine and particulate effluent samples no later than January 1, 1983.

(j) Inadequate Core Cooling Instruments (Section 22.3 Item II.F.2)

VEPCO shall install and demonstrate the operability of additional instruments or controls needed to supplement installed equipment in order to provide unambiguous, easy-to-interpret indication of inadequate core cooling at the first outage of sufficient duration but no later than July 1, 1982.

licensee

(22) The licensee is authorized to receive from the Surry Nuclear Power Station Units No. 1 and 2, possess, and store irradiated Surry fuel assemblies containing special nuclear material, enriched to not more than 4.1% by weight U-235, subject to the following conditions:

- a. Surry fuel assemblies may not be placed in the North Anna Power Station Units No. 1 and 2 reactors.
- b. Irradiated fuel shipped to North Anna shall have been removed from the Surry reactors no less than 730 days prior to shipment.
- c. No more than 500 Surry irradiated fuel assemblies shall be received for storage at the North Anna Units No. 1 and 2 spent fuel pool.

Add

(5) ENVIRONMENTAL PROTECTION PLAN

The Environmental Protection Plan contained in Appendix B, as revised through Amendment No. —, is hereby incorporated ~~Amendment No. 65~~ in the license. The licensee shall operate the facility in accordance with the Environmental Protection Plan.

D. ~~(23)~~ Fire Protection

Updated

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.

~~(24) Lead Test Assemblies~~

~~Virginia Electric and Power Company may use up to four (4) fuel assemblies containing advanced zirconium based alloys as described in the licensee's submittal dated September 4, 1996, as supplemented February 3, 1997.~~



~~D. An exemption from certain requirements of Appendix C to 10 CFR Part 50 is described in the Office Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 10. This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption is, therefore, hereby granted. The granting of the exemption was authorized with the issuance of the License for Fuel Loading and Low-Power Testing, dated April 11, 1980. The facility will operate to the extent authorized herein, in conformity with the application, as amended, to provisions of the Act, and the regulations of the Commission.~~

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E. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "North Anna Power Station Physical Security Plan," with revisions submitted through February 24, 1988; "North Anna Power Station Guard Training and Qualification Plan," with revisions submitted through May 14, 1987; and "North Anna Power Station Safeguards Contingency Plan," with revisions submitted through January 9, 1987. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

INSERT A  
Move to  
2.C(3)(a)

~~F. The design of the reactor coolant pump and steam generator supports may be revised in accordance with the licensee's submittal dated November 6, 1986 (Serial No. 86-477A).~~

§/3

~~If VEPCO plans to remove or to make significant changes in the normal operation of equipment that controls the amount of radioactivity in effluents from the North Anna Power Station, the NRC shall be notified in writing regardless of whether the change affects the amount of radioactivity in the effluents.~~

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INSERT B  
MOVE to  
2.C(3)(a)

~~H. VEPCO shall report any violations of the requirements contained in Section 2, Items C(3) through C(21), E, F and G of this license within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.~~

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VEPCO shall report any violations of this requirement within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.

2

I. The Additional Conditions contained in Appendix C, as revised through Amendment No. 195, are hereby incorporated into this license. Virginia Electric and Power Company shall operate the facility in accordance with the Additional Conditions.

} | 2

F. This license is effective as of the date of issuance and shall expire at midnight on August 21, 2020.

| 1

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:  
Harold R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Attachment:

~~Appendices A, B, and C~~

| 1.8

Date of Issuance: AUG 21 1980

Appendix A, Technical Specifications  
Appendix B, Environmental Protection Plan

8

APPENDIX C  
TO FACILITY OPERATING LICENSE NO. NPF-7  
NORTH ANNA POWER STATION, UNIT NO. 2  
VIRGINIA ELECTRIC AND POWER COMPANY  
DOCKET NO. 50-339  
ADDITIONAL CONDITIONS

2

~~ADDITIONAL CONDITIONS~~

<del>Amendment Number</del>	<del>Additional Condition</del>	<del>Implementation Date</del>
<del>195</del>	The licensee shall implement a procedure that will prohibit entry into an extended Emergency Diesel Generator Outage Time (14 days), for scheduled maintenance purposes, if severe weather conditions are expected, as described in the licensee's application dated June 25, 1998, and evaluated in the staff's Safety Evaluation dated August 26, 1998.	<del>Prior to implementation of Amendment No. 195</del>

Move to 2.C(3)(b)  
as INSERT C

**ATTACHMENT 3**

**PROPOSED OPERATING LICENSES AND TECHNICAL SPECIFICATIONS PAGES**

**VIRGINIA ELECTRIC AND POWER COMPANY  
(DOMINION)  
NORTH ANNA POWER STATION UNIT 2**

## TABULATION OF CHANGES

License No. NPF-7 / Docket No. 50-339

### Summary of change:

This proposed change to the Technical Specifications is being made to remove obsolete license conditions from the Operating License.

<u>DELETE</u>	<u>DATED</u>	<u>SUBSTITUTE</u>
License Page 1	11-18-83	License Page 1
License Page 2	11-18-83	License Page 2
License Page 3	11-20-00	License Page 3
License Page 4	05-26-88	License Page 4
License Page 5	05-26-88	---
License Page 6	05-03-82	---
License Page 6a	02-10-81	---
License Page 7	02-20-91	---
License Page 8	10-29-82	---
License Page 8a	10-29-82	---
License Page 9	12-29-80	---
License Page 10	---	---
License Page 11	08-10-82	---
License Page 12	04-21-86	---
License Page 12a	05-09-97	---
License Page 13	12-05-88	---
License Page 14	08-26-98	---
Appendix C	08-26-98	---
AC 1	08-26-98	---

VIRGINIA ELECTRIC AND POWER COMPANY  
OLD DOMINION ELECTRIC COOPERATIVE  
DOCKET NO. 50-339  
NORTH ANNA POWER STATION, UNIT NO. 2  
FACILITY OPERATING LICENSE

License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for license filed by Virginia Electric and Power Company (VEPCO) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the North Anna Power Station Unit No. 2 (facility) has been substantially completed in conformity with Construction Permit No. CPPR-78 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I;
  - E. VEPCO is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. VEPCO and the Old Dominion Electric Cooperative have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
  - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License NPF-7, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
  - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70; and
  - J. The Old Dominion Electric Cooperative is a partial financial owner of the facility and will not operate the facility.

2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on August 20, 1980, the License for Fuel-Loading and Low-Power Testing issued on April 11, 1980 is superseded by Facility Operating License NPF-7 hereby issued to Virginia Electric and Power Company (VEPCO) and the Old Dominion Electric Cooperative (ODEC) to read as follows:

A. This license applies to the North Anna Power Station, Unit No. 2, a pressurized water nuclear reactor and associated equipment (the facility), owned by VEPCO and ODEC. The facility is located near Mineral in Louisa County, Virginia and is described in VEPCO's Updated Final Safety Analysis Report and Environmental Report as supplemented and amended (Supplements 1 through 4).

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

(1) Pursuant to Section 103 of the Act and 10 CFR Part 50, VEPCO and ODEC to possess and VEPCO to use and operate the facility at the designated location in Louisa County, Virginia, in accordance with the limitations set forth in this license;

(2) Pursuant to the Act and 10 CFR Part 70, VEPCO to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in VEPCO's Updated Final Safety Analysis Report;

(3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material, without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, VEPCO to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

VEPCO is authorized to operate the facility at steady state reactor core power levels not in excess of 2893 megawatts (thermal).



(2) Technical Specifications

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

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the condition or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission:

- a. If VEPCO plans to remove or to make significant changes in the normal operation of equipment that controls the amount of radioactivity in effluents from the North Anna Power Station, the NRC shall be notified in writing regardless of whether the change affects the amount of radioactivity in the effluents.

VEPCO shall report any violations of this requirement within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.

- b. The licensee shall implement a procedure that will prohibit entry into an extended Emergency Diesel Generator Outage Time (14 days), for scheduled maintenance purposes, if severe weather conditions are expected, as described in the licensee's application dated June 25, 1998, and evaluated in the staff's Safety Evaluation dated August 26, 1998.

(4) The licensee is authorized to receive from the Surry Nuclear Power Station Units No. 1 and 2, possess, and store irradiated Surry fuel assemblies containing special nuclear material, enriched to not more than 4.1% by weight U-235, subject to the following conditions:

- a. Surry fuel assemblies may not be placed in North Anna Power Station Units No. 1 and 2 reactors.
- b. Irradiated fuel shipped to North Anna shall have been removed from the Surry reactors no less than 730 days prior to shipment.
- c. No more than 500 Surry irradiated fuel assemblies shall be received for storage at the North Anna Units No. 1 and 2 spent fuel pool.

(5) Environmental Protection Plan

The Environmental Protection Plan contained in Appendix B, as revised through Amendment No. , is hereby incorporated in the license. The licensee shall operate the facility in accordance with the Environmental Protection Plan.

D. Fire Protection

VEPCO shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated 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.

E. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission - approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54 (p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "North Anna Power Station Physical Security Plan," with revisions submitted through February 24, 1988; "North Anna Power Station Guard Training and Qualification Plan," with revisions submitted through May 14, 1987; and "North Anna Power Station Safeguards Contingency Plan," with revisions submitted through January 9, 1987. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. This license is effective as of the date of issuance and shall expire at midnight on August 21, 2020.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:  
Harold R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Appendix A, Technical Specifications  
Appendix B, Environmental Protection Plan

Date of Issuance: AUG 21 1980

**ATTACHMENT 4**

**SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION**

**VIRGINIA ELECTRIC AND POWER COMPANY  
(DOMINION)  
NORTH ANNA POWER STATION UNIT 2**

## **SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION**

Virginia Electric and Power Company has reviewed the requirements of 10 CFR 50.92 as they relate to the proposed administrative change to the Facility Operating License (FOL), NPF-7, for North Anna Unit 2 and determined that a significant hazards consideration is not involved. The proposed administrative change to the North Anna Unit 2 FOL makes minor editorial corrections, relocates various license conditions within the license, and removes outdated, superceded or otherwise non-applicable license conditions. Minor restructuring and renumbering of certain sections of the Facility Operating License to facilitate consistency between the two units at North Anna is also included in this administrative change. The result is a license document that is directly applicable to the current plant licensing and design bases. There is no significant hazard consideration associated with this proposed change since the change does not alter any currently applicable FOL requirements. Accordingly, the current North Anna Unit 2 licensing and design bases are unchanged. In support of this conclusion, the following evaluation is provided.

**Criterion 1** - The proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to the North Anna Unit 2 Facility Operating License, NPF-7, is administrative (and in part editorial) in nature. The removal of license conditions regarding completed, no longer needed, and expired requirements has no impact on plant operations since these requirements no longer have meaningful applications. The renumbering and/or relocation within the FOL of various license conditions in this proposed administrative change does not alter the technical basis, requirements or the implementation of the affected items. The proposed change is within the current design and licensing bases of the facility. Since this change is administrative only and neither station operations nor design are affected by the change, it does not involve any significant increase in the probability or the consequences of any accident or malfunction of equipment important to safety previously evaluated.

**Criterion 2** - The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change is administrative (and in part editorial) in nature. The license conditions that are being removed or relocated by this proposed change do not impact station operations or station equipment in any manner. The proposed change does not involve a physical alteration of the plant, nor a change in the methods used to respond to plant transients that has not been previously

analyzed. No new or different equipment is being installed and no installed equipment is being removed or operated in a different manner. Consequently, no new failure modes are introduced and the proposed administrative change to the North Anna Unit 2 Facility Operating License does not create the possibility of a new or different kind of accident or malfunction of equipment important to safety from any previously evaluated.

**Criterion 3 - The proposed license amendment does not involve a significant reduction in a margin of safety.**

The proposed change is administrative (and in part editorial) in nature and neither station operations nor design are affected by the change. Since station operations are not affected by the proposed administrative change and no physical change is being made to the station, the change does not impact the condition, design, or performance of any station structure, system or component. Therefore, the proposed administrative change to the North Anna Unit 2 Facility Operating License does not involve a significant reduction in any margin of safety described in the bases of the Technical Specifications.