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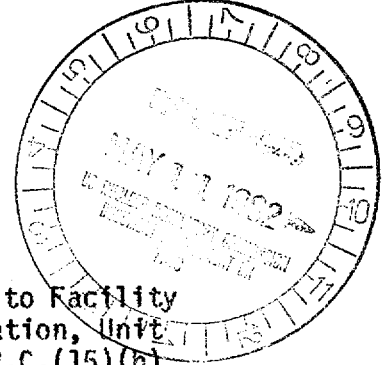
MAY 3 1982

Docket No. 50-339

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



Dear Mr. Leasburg:

The Commission has issued the enclosed Amendment No. 22 to Facility Operating License No. NPF-7 for the North Anna Power Station, Unit No. 2 (NA-2). The amendment revises License Condition 2.C.(15)(h), paragraphs (2) and (4), as requested in your letter dated February 17, 1982 (Serial No. 079) and as revised in your letter dated March 18, 1982 (Serial No. 141).

The amendment revises the time required for the Virginia Electric and Power Company to complete the revised stipulations of License Conditions 2.C.(15)(h)(2) and 2.C.(15)(h)(4) regarding diesel generator reliability. The revised date for completion is the October 1982 NA-2 Fall maintenance outage.

The extension in time is related to the unavailability of equipment required to implement the modifications as stipulated in revised License Condition 2.C.(15)(h)(2) and (4).

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

Sincerely,

Original signed by

8205190082 820503
 PDR ADOCK 05000339
 P PDR

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

Enclosures:

1. Amendment No. 22 to NPF-7
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
 See next page

OK for 5/3

no legal objection to amend. or notice

OFFICE	ORB#3:DL PMKreutzer	ORB#3:DL LEngle/ph	ORB#3:DL RAClark	AD OR:DL TNovak	D:DL DEisenhut	OELD DSwanson
SURNAME	PMKreutzer	LEngle/ph	RAClark	TNovak	DEisenhut	DSwanson
DATE	4/8/82	4/8/82	4/8/82	4/8/82	4/11/82	4/11/82



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

DISTRIBUTION:
Docket File
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Docket No. 50-339

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: VIRGINIA ELECTRIC AND POWER COMPANY, North Anna Power Station,
Unit No. 2

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

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

Other: Amendment No. 22.
Referenced documents have been provided PDR.

Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
As Stated

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

Virginia Electric and Power Company

cc:

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Resident Inspector/North Anna
c/o U.S.N.R.C.
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Blandon Building
Richmond, Virginia 23209

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

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

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

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



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated February 17, as revised March 18, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Paragraphs 2.C.(15), 2.C.(15)(h)(2) and 2.C.(15)(h)(4) of Facility Operating License NPF-7 are hereby amended to read as follows:
 - 2.C.(15) Prior to resuming power operation following the first refueling outage except as specifically noted in paragraphs (h)(2) and (h)(4) below:

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- 2.C.(15)(h)(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 October 1982 Fall maintenance outage."
- 2.C.(15)(h)(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. The modifications shall be completed no later than the October 1982 Fall maintenance outage."

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

FOR THE NUCLEAR REGULATORY COMMISSION



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

Date of Issuance: May 3, 1982



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NO. NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNIT NO. 2

DOCKET NO. 50-339

Introduction:

By letters dated February 17, 1982 and March 18, 1982, the Virginia Electric and Power Company (the licensee) requested that License Condition 2.C.(15)(h) to Facility Operating License NFP-7 be revised for the North Anna Power Station, Unit 2 (NA-2).

License Condition 2.C.(15)(h) and subparts thereto, numbered (1), (2), (3), (4), (5), and (6), stipulate certain design and procedural modifications for diesel generator reliability which must be completed prior to restart after the first refueling outage.

The stipulations of License Condition 2.C.(15)(h), and all subparts thereto are in conformance with the recommendations of NUREG/CR-0660 regarding the enhancement of diesel generator reliability. In our SER, Supplement No. 11 (August 1980) related to the operation of NA-2, we stated that the modifications as specified in License Condition 2.C.(15)(h) would provide reasonable assurance of diesel generator reliability through the design life of the plant.

The licensee's request for revising License Condition 2.C.(15)(h) specifically applies to only subparagraphs 2.C.(15)(h)(2) and 2.C.(15)(h)(4). The requirements specified in subparagraphs 2.C.(15)(h)(1), (3), (5) and (6) have either been or will be completed prior to restart after the first refueling outage. Restart for NA-2 is presently scheduled to commence May 14, 1982.

License Condition 2.C.(15)(h)(2) addresses certain modifications required for the diesel generator prelube system. License Condition 2.C.(15)(h)(4) addresses modifications required to reroute the diesel day tank overflow line back to the seven day underground diesel storage tank.

The licensee has requested that 2.C.(15)(h)(2) be revised to incorporate alternate modifications for the diesel prelube system and that the time required for completing the modifications be extended to the NA-2 1982 Fall maintenance outage.

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For 2.C.(15)(h)(4), the licensee proposed modifications regarding the rerouting of the diesel day tank overflow line which we found unacceptable. The licensee has further revised the original proposed modifications and has requested that the time for completing the revised modifications be extended to the 1982 Fall maintenance outage.

The licensee's request for an extension in time for both subparagraphs (h)(2) and (h)(4) is based on equipment delivery dates which come after the scheduled May 14, 1982 restart date for NA-2.

Our discussion of the above matters including our evaluation and conclusions regarding the licensee's request is provided below.

License Condition 2.C.(15)(h)(4); Emergency Diesel Engine Lubricating Oil System

Discussion:

The emergency diesel generator system for NA-2 consists of two Fairbank Morse Model 3800 TD 8-1/8, opposed piston diesels. According to the licensee and the manufacturer, the design of the Fairbanks Morse (FM) diesels was such that continuous lubrication of the wearing parts when the engine is on standby service is not feasible. The FM diesel is provided with a keep warm lubrication system which operates continuously when the engine is on standby service. This system does not lubricate the engine wearing parts. Therefore, when the engine is on standby service for a prolonged period of time, lubricating oil drains from the wearing parts and the engine is subject to a dry start. Dry starting of these diesel generators under emergency conditions results in momentary lack of lubrication at the various moving parts which could eventually lead to failures with resultant equipment unavailability.

Therefore, at the time NA-2 received a full power operating license (August 21, 1980), License Condition 2.C.(15)(h)(2) was formulated to require a modification to the diesel lube oil system to alleviate dry starting and the modifications were to be completed during the first refueling outage.

By letter dated February 17, 1982 the licensee proposed to install the manufacturer's modification to the lube oil system instead of the modification imposed by the staff as a licensing condition to the operating license. The modification as proposed by the licensee will result in the continuous lubrication of the lower portions of the engine. The upper portions of the engine will not be prelubricated in the standby condition. Lubricating the upper portions of the engine in the standby condition would result in excessive amounts of oil collecting in the cylinders, which is an unacceptable condition to the manufacturer. However, the modification will provide for partial filling of the upper lube oil supply header and a lube oil booster/accumulator system which will force lube oil into the upper lube oil header during starting. Therefore, the wearing parts in the upper portion of the engine will get lubricated immediately upon engine starting. We find this modification to be acceptable and hence our concern on dry starting is alleviated.

By letter dated February 17, 1982, the licensee requested a postponement of the licensing condition until the second refueling outage due to equipment unavailability. We found this unacceptable and informed the licensee. In a letter dated March 18, 1982, the licensee stated that the manufacturer, Fairbanks Morse, had scheduled final delivery of the equipment needed for the lube oil system modification for May 1982, which would come after the scheduled restart for NA-2. The licensee further stated that the modification to the lube oil system would be installed during the fall maintenance outage scheduled for October 1982. We find this date acceptable and will modify License Condition 2.C.(15)(h)(2) to reflect this revised implementation date.

Evaluation:

Based on our review of the licensee's proposed modifications, we conclude that the emergency diesel engine lubricating oil system as modified above meets the requirements of General Design Criteria 2, 4, 5 and 17, meets the guidance of the cited Regulatory Guides and Standard Review Plan 9.5.7, can perform its design safety function, meets the recommendations of NUREG/CR-0660 and industry codes and standards, and is therefore acceptable.

Further, we conclude that, based on the above, the licensee has complied with the requirements of 2.C(15)(h)(2) to the extent practicable at this time, and we find that an additional six (6) months extension in time for completing the approved modifications does not adversely affect the intent of License Condition 2.C.(15)(h) for providing reasonable assurance of diesel generator reliability through the design life of the plant.

Therefore, Licence Condition 2.C.(15)(h)(2) is hereby revised to stipulate:

"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 October 1982 Fall maintenance outage."

2.C.(15)(h)(4); Emergency Diesel Engine Fuel Oil Storage and Transfer System

Discussion

The overflow line from the diesel generator day tank, as presently designed and installed, permits fuel oil to be spilled to the ground whenever the tank is overfilled or in the event of level controller malfunction. We found this design to be unacceptable because the capacity of the 7 day fuel oil storage tank could be compromised and because a ground oil spill is a fire hazard that could endanger the availability of the diesel generators.

License Condition 2.C.(15)(h)(4) required that the day tank overflow line be rerouted to return excess fuel to the 7 day fuel oil storage tank, and that the modification be installed prior to start-up following the first refueling.

In its letter dated February 1982, the licensee stated that routing an overflow line from the day tank to the seven day storage tank would be impossible due to above and below ground interferences such as the refueling water storage tank, condensate storage, auxiliary feedwater pumphouse, buried service water piping, and tank and building foundations. The licensee proposed to install a separate day tank high level alarm for each tank with separate annunciation in the control room. We found this to be unacceptable, since the proposed modification did not alleviate the original concern. The licensee was informed of the unacceptability of his modification.

In its letter dated March 18, 1982, the licensee revised his proposal to include, in addition to the separate high level alarms, independent and redundant shut-off switches to the lead transfer pump and backup transfer pump. Presently the diesel generator fuel oil transfer pumps (lead and backup) stop on high level from two independent level switches (one level switch stops the lead pump and one level switch stops the backup pump) mounted on the day tank. The modification would add a pressure switch per pump which will be set to stop the pump on high level making them redundant to the existing high level shut off switches. We find this design modification and addition of a high level alarm to be an acceptable alternative to an overflow line from the day tank to the seven day storage tank, provided the following condition is met: We will require that the licensee submit technical specifications prior to implementation of the modifications which will verify proper operation of the transfer pump high level shutoff control switches, day tank high level alarms, and transfer pump pressure shutoff switches. The frequency of the inservice inspection will be monthly.

License Condition 2.C.(15)(h)(4) required the installation of the overflow line prior to startup following the first refueling. In the March 18, 1982 letter, the licensee proposed to install the modifications described above during the fall maintenance outage scheduled for October 1982. The licensee stated that delivery of qualified pressure switches is such that they could not be installed by the end of the first refueling outage scheduled to end in May 1982. We find the installation of the above items, during the fall maintenance outage scheduled for October 1982, to be acceptable.

Evaluation:

Based on our review, we conclude that the emergency diesel engine fuel oil system as modified meets the requirements of General Design Criteria 2, 4, 5, and 17, meets the guidance of the cited Regulatory Guides and Standard Review Plan 9.5.7, except as stated above, can perform its design safety function, meets the recommendations of NUREG/CR-0660 and industry codes and standards, and is therefore acceptable.

We also conclude, based on the above, that the licensee has complied with the requirements of 2.C.(15)(h)(4) to the extent practicable at this time, and we find that an additional six (6) months extension in time for completing the approved modifications does not adversely affect the intent of License Condition 2.C.(15)(h) for providing reasonable assurance of diesel generator reliability through the design life of the plant.

Therefore, License Condition 2.C.(15)(h)(4) is hereby revised to stipulate:

"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. The modifications shall be completed no later than the October 1982 Fall maintenance outage."

Environmental Consideration

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

Conclusion

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

Date: May 3, 1982

Principal Contributors;

R. Giardina
L. Engle

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

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 22 to Facility Operating License No. NPF-7 issued to the Virginia Electric and Power Company (the licensee) for operation of the North Anna Power Station, Unit No. 2 (the facility) located in Louisa County, Virginia. The amendment is effective as of its date of issuance.

The amendment revises the time required for the licensee to complete the revised and approved stipulation of Licensing Conditions 2.C.(15)(h)(2) and 2.C.(15)(h)(4) regarding diesel generator reliability. The approved extension in time from the first refueling outage to the October 1982 Fall maintenance outage is due to the impact of equipment delivery dates with the NA-2 scheduled restart date of May 14, 1982.

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

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

For further details with respect to this action, see (1) the application for amendment dated February 17, 1982 as revised March 18, 1982, (2) Amendment No. 22 to Facility Operating License No. NPF-7, and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and at the Board of Supervisors Office, Louisa County Courthouse, Louisa, Virginia 23093 and at the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901. A copy of items (2) and (3) may be obtained upon request to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 3rd day of May, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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