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LWR #3 File  
D. Swanson  
S. Goldberg  
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Docket No. 50-339

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O. Parr  
A. Dromerick  
M. Rushbrook  
F. Williams  
A. Toalston  
M. Jinks, (w/4 encl.)  
IE (3)

DEC 29 1978

N. Dube  
W. Miller  
R. Diggs  
R. DeYoung  
V. Moore  
W. Regan  
P. Leech  
M. Duncan  
M. Ernst  
R. Vollmer  
D. Crutchfield  
R. Denise  
R. Mattson  
J. Knight  
R. Tedesco

B. Scharf, (15)  
D. Skovholt  
L. Cobb, IE

Virginia Electric & Power Company  
ATTN: Mr. W. L. Proffitt  
Senior Vice President - Power  
P. O. Box 26666  
Richmond, Virginia 23261

Dear Mr. Proffitt:

SUBJECT: ORDER EXTENDING CONSTRUCTION COMPLETION DATE FOR NORTH ANNA POWER STATION, UNIT NO. 2

In response to your request, dated September 26, 1978, the Nuclear Regulatory Commission has issued an Order extending the construction completion date for the North Anna Nuclear Power Station, Unit No. 2. The latest construction completion date has been extended for Unit No. 2 from November 1, 1978 to December 1, 1979.

A copy of the Order, Staff Evaluation, Negative Declaration and Environmental Impact Appraisal, are enclosed for your information. The Order and Negative Declaration have been forwarded to the Office of the Federal Register for publication.

Sincerely,

*15/*  
Olan D. Parr, Chief  
Light Water Reactors Branch No. 3  
Division of Project Management

Enclosures:

- 1. Order
- 2. Staff Evaluation
- 3. Negative Declaration
- 4. Environmental Impact Appraisal

cc w/enclosures:  
See next page

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WR Regan  
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| OFFICE  | LWR #3:LA:LPM              | DSE      | OELD DL   | LWR #3:BC | LWR A/D   | DFM:O    |
| SURNAME | Rushbrook:ch<br>ADromerick | VMoore   | D SWANSON | OParr     | DVassallo | RBoyd    |
| DATE    | 11/29/78                   | 11/30/78 | 12/11/78  | 12/29/78  | 11/29/78  | 12/29/78 |

DEC 29 1978

Mr. W. L. Proffitt

-2-

cc: Mrs. James C. Arnold  
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Region II  
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Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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Department of Civil Engineering  
Drexel University  
Philadelphia, Pennsylvania 19104

cc: Ms. Susan T. Wilburn -3-  
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Council on the Environment  
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Richmond, Virginia 23219

Mr. A. D. Johnson, Chairman  
Board of Supervisors of Louisa County  
Trevillians, Virginia 23170

Mr. George Pence  
U. S. Environmental Protection Agency  
Region III Office  
ATTN: EIS Coordinator  
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Philadelphia, Pennsylvania 19106

Director, Technical Assessment  
Division  
Office of Radiation Programs  
(AW-459)  
US EPA  
Crystal Mall #2  
Arlington, Virginia 20460

Federal Energy Regulatory Commission  
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Washington, D. C. 20426

Chairman, Virginia State Corporation  
Commission  
Blanton Building  
P. O. Box 1197  
Richmond, Virginia 23209

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNIT NO. 2

DOCKET NO. 50-339

ORDER EXTENDING CONSTRUCTION COMPLETION DATE

Virginia Electric and Power Company is the holder of Construction Permit No. CPPR-78 issued by the \*Atomic Energy Commission on February 19, 1971, for construction of the North Anna Power Station, Unit No. 2, presently under construction at the Company's site in Louisa County, Virginia.

On September 26, 1978, the applicant filed a request for an extension of the construction completion date for Unit No. 2.

Construction has been delayed due to:

- (1) Testing of the low head safety injection and recirculation spray pumps;
- (2) Emphasis placed on completion of Unit No. 1 of the North Anna Power Station for operation and transfer of materials to that unit;
- (3) Revised schedule for completion of the Reactor Coolant System, thus delaying construction completion of Unit No. 2;
- (4) Delay of completion of hanger design and final stress analysis for all Category 1 piping systems; and

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\*Effective January 20, 1975, the Atomic Energy Commission became the Nuclear Regulatory Commission and permits in effect on that day continued under the authority of the Nuclear Regulatory Commission.

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(5) The Loan of North Anna Unit 2 reactor coolant pump motor to the Surry Power Station.

This action involves no significant hazards consideration; good cause has been shown for the delay; and the requested extension is for a reasonable period, the bases for which are set forth in the staff evaluation dated DEC 29 1978 . The preparation of an environmental impact statement for this particular action is not warranted because there will be no significant environmental impact attributable to the Order other than that which has already been predicated and described in the Commission's Final Environmental Statement for the North Anna Power Station, Units 1 and 2, published in April 1973, and addendum thereto published in November 1976. A Negative Declaration and an Environmental Impact Appraisal have been prepared and are available, as are the above stated documents for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D.C. 20555 and at the local public document rooms established for the North Anna Power Station facility in the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901 and in the Office of the Board of Supervisors, Louisa County Courthouse, Main Street, Louisa, Virginia 23093.

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It is HEREBY ORDERED THAT THE latest completion date for CPPR-78  
be extended from November 1, 1978 to December 1, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:  
Roger S. Boyd

Roger S. Boyd, Director  
Division of Project Management  
Office of Nuclear Reactor Regulation

DATE OF ISSUANCE: DEC 29 1978

*R DSE*  
Leech/WRegan  
11/30/78

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| OFFICE  | LWR #3:LA:LPM | BSE      | OELD     | LWR #3:BC | LWR MD   | DPM:B    |
| SURNAME | ADromenick    | VMoore   | DSwanson | OParr     | Dross    | RBoyd    |
| DATE    | 11/20/78      | 11/30/78 | 12/11/78 | 12/29/78  | 12/29/78 | 12/29/78 |

DEC 29 1978

EVALUATION OF REQUEST FOR EXTENSION OF  
CONSTRUCTION PERMIT NO. CPPR-78  
FOR THE NORTH ANNA POWER STATION, UNIT NO. 2  
DOCKET NO. 50-339

INTRODUCTION

On September 26, 1978, the Virginia Electric and Power Company filed a request for an extension of the latest construction completion date for Construction Permit CPPR-78 issued for the North Anna Power Station, Unit No. 2. This Unit is approximately 92 percent complete.

DISCUSSION

Construction Permits CPPR-77 and CPPR-78 were issued on February 19, 1971 with construction completion dates of August 1, 1974 and August 1, 1975, respectively. These permits were issued for the construction of the North Anna Power Station, a two unit facility to be located in Louisa County, Virginia. On April 15, 1975 the Commission issued an Order Extending Construction Completion Dates for CPPR-77 (Unit No. 1) to March 1, 1977 and for CPPR-78 (Unit No. 2) to May 1, 1978. On April 19, 1977 the Commission issued an Order Extending Construction Completion Dates for CPPR-77 (Unit No. 1) to September 1, 1977 and for CPPR-78 (Unit No. 2) to November 1, 1978. On September 28, 1977 the Commission issued an Order Extending Construction Completion Date for CPPR-77 (Unit No. 1) to December 31, 1977. The North Anna Power Station, Unit No. 1 was issued Operating License NPF-4 on November 26, 1977.

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In the application for extension of the construction completion date for Unit No. 2 to December 1, 1979, Virginia Electric and Power Company indicated that the major contributing factors to the delay in completion of the construction activities for Unit 2 was the transfer of materials, equipment, and manpower to Unit No. 1. The emphasis was on completion of Unit No. 1 for operation. This resulted in a construction delay of 5 months on Unit No. 2.

A delay of 3 months was incurred by the testing of low head safety injection and recirculation spray pumps. The pumps were tested inside the Unit No. 2 containment building causing delay of other work.

Although the pumps were to be used for both units of the North Anna Power Station, Unit No. 1 was in final preparation for fuel loading, and testing could not be accomplished.

Additional delay was caused by an unanticipated delay in the reviews of the completion of hanger design and final stress analysis for all Category 1 piping systems. The final stress analysis for Category 1 class 1 lines was not completed until October 1, 1978. The final stress reports are not yet completed. The major reactor coolant system problems were:

- (1) Modifications to the Resistance Temperature Detector by-pass valve resulting from stress analysis;

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- (2) Modifications to system related trip valves;
- (3) Review of weld joint procedures; and
- (4) Quality control research on alleged undergrinding of weld joints.

The potential delay attributable to hanger design and final stress analysis is approximately four weeks.

By letter, dated October 31, 1978, the Virginia Electric and Power Company advised of an additional four week delay in the construction of Unit No. 2 caused by loaning the reactor coolant pump motor to the Surry Power Station.

CONCLUSION

We have reviewed the information provided in Virginia Electric and Power Company's submittal, and we conclude that the factors discussed above are reasonable and constitute good cause for delay; and that the requested extension of Construction Permit CPPR-78 for 13 months to December 1, 1979, is justified. As a result of our review of the Final Safety Analysis Report to date, and considering the nature of the delays, we have identified no areas of significant safety considerations in connection with the extension of the construction completion date for North Anna Power Station, Unit No. 2.

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The staff finds that because the request is solely for more time to complete work already reviewed and approved, no significant hazards considerations is involved in granting the request and thus prior public notice of this action is not required. We also find that good cause exists for the issuance of an Order extending the construction completion date.

Accordingly, issuance of an Order extending the latest construction completion date for the North Anna Power Station, Unit No. 2 as set forth in CPPR-78, to December 1, 1979 is reasonable and should be authorized.

Original signed by

A. W. Dromerick

Alexander W. Dromerick, Project Manager  
Light Water Reactors Branch No. 3  
Division of Project Management

Original Signed by

O. D. Parr

Olan D. Parr, Chief  
Light Water Reactors Branch No. 3  
Division of Project Management

Dated: DEC 29 1978

\*SEE PREVIOUS YELLOW FOR CONCURRENCES

\*DSE  
Leech/WRegan  
11/30/78

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| OFFICE >  | LWR #3:LA:LPM            | *DSE     | *OELD    | LWR #3:BC | LWR A/D  | DPM:D    |
| SURNAME > | MRushbrook<br>ADromerick | VMoore   | DSwanson | OParr     | Nyassa   | RBoyd    |
| DATE >    | 12/19/78                 | 11/30/78 | 12/11/78 | 12/29/78  | 12/29/78 | 12/29/78 |

EVALUATION OF REQUEST FOR EXTENSION OF  
CONSTRUCTION PERMIT NO. CPPR-78  
FOR THE NORTH ANNA POWER STATION, UNIT NO. 2  
DOCKET NO. 50-339

*2 Originals  
 1 yellow  
 Plain bond*

INTRODUCTION

On September 26, 1978, the Virginia Electric and Power Company filed a request for an extension of the latest construction completion date for Construction Permit CPPR-78 issued for the North Anna Power Station, Unit No. 2. This Unit is approximately 92 percent complete.

DISCUSSION

Construction Permits CPPR-77 and CPPR-78 were issued on February 19, 1971. *with construction completion date of* These permits were issued for the construction of the North Anna Power Station, a two unit facility to be located in Louisa County, Virginia. *Insert no Para* The North Anna Power Station, Unit No. 1 was issued ~~Operating~~ *Operating* License NPF-4 on November 26, 1977.

In the application for extension of the construction completion date for Unit No. 2 to December 1, 1979, Virginia Electric and Power Company indicated that the major contributing factors to the delay in completion of the construction activities for Unit 2 was the transfer of materials, equipment, and manpower to Unit No. 1. The emphasis was on completion of Unit No. 1 for operation. This resulted in a construction delay of 5 months on Unit No. 2.

A delay of 3 months was incurred by the testing of low head safety injection and recirculation spray pumps. The pumps were tested inside

*August 1, 1974 and August 1, 1975, respectively.*

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the Unit No. 2 containment building causing delay of other work.

Although the pumps were to be used for both units of the North Anna Power Station, Unit No. 1 was in final preparation for fuel loading, and ~~unable to facilitate testing.~~

Additional delay was caused by unanticipated reviews of the completion of hanger design and final stress analysis for all Category 1 piping systems. The final stress analysis for Category 1 class 1 lines was not completed until October 1, 1978. The final stress reports are not yet completed. The major reactor coolant system problems were:

- (1) Modifications to the Resistance Temperature Detector by-pass valve resulting from stress analysis;
- (2) Modifications to system related trip valves;
- (3) Review of weld joint procedures; and
- (4) Quality control research on alleged undergrinding of weld joints.

The potential delay attributable to hanger design and final stress analysis is approximately four weeks.

By letter, dated October 31, 1978, the Virginia Electric and Power Company advised of an additional four week delay in the construction of Unit No. 2 caused by loaning the reactor coolant pump motor to the Surry Power Station.

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CONCLUSION

We have reviewed the information provided in Virginia Electric and Power Company's submittal, and we conclude that the factors discussed above are reasonable and constitute good cause for delay; and that the requested extension of Construction Permit CPPR-78 for 13 months to December 1, 1979, is justified. As a result of our review of the Final Safety Analysis Report to date, and considering the nature of the delays, we have identified no areas of significant safety considerations in connection with the extension of the construction completion date for North Anna Power Station, Unit No. 2.

The staff finds that because the request is solely for more time to complete work already reviewed and approved, no significant hazards considerations is involved in granting the request and thus prior public notice of this action is not required. We also find that good cause exists for the issuance of an Order extending the construction completion date.

Accordingly, issuance of an Order extending the latest construction completion date for the North Anna Power Station, Unit No. 2 as set forth in CPPR-78, to December 1, 1979 is reasonable and should be authorized.

Alexander W. Dromerick, Project Manager  
 Light Water Reactors Branch No. 3  
 Division of Project Management

*WLR*  
 DSE  
 Leech/WRegan  
 11/30/78

Olan D. Parr, Chief  
 Light Water Reactors Branch No. 3  
 Division of Project Management

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| OFFICE  | Dated: LWR #3:LA: LPM DSE | OELD     | LWR #3:BC | LWR A/D   | DPM:D   |
| SURNAME | Moore                     | DSwanson | OParr     | DVassallo | RBoyd   |
| DATE    | 11/30/78                  | 12/11/78 | 11/ /78   | 11/ /78   | 11/ /78 |

NEGATIVE DECLARATION  
REGARDING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-78  
FOR NORTH ANNA POWER STATION UNIT 2  
VIRGINIA ELECTRIC AND POWER COMPANY  
DOCKET NO. 50-339

The U. S. Nuclear Regulatory Commission (the Commission) has reviewed a request from Virginia Electric and Power Company for a 13-month extension of the construction permit for North Anna Power Station Unit 2, located in Louisa County, Virginia. The extension would permit revision of the construction completion date to December 1, 1979.

The Commission's Division of Site Safety and Environmental Analysis has prepared an environmental impact appraisal relative to the proposed extension. Based on the appraisal, the Commission has concluded that an environmental impact statement for this particular action is not warranted because there will be no significant environmental impact other than those which have been described in the Commission's Final Environmental Statement for North Anna Power Station, Unit Nos. 1, 2, 3, and 4, published in April 1973 and the Addendum to Final Environmental Statement published in November 1976, or evaluated in the environmental impact appraisal.

The environmental impact appraisal is available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Board of Supervisors, Louisa County Courthouse, Louisa, Virginia 23093 and Alderman Library, Manuscripts Department, University of

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Virginia, Charlottesville, Virginia 22901. A copy may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Site Safety and Environmental Analysis.

Dated at Bethesda, Maryland, this <sup>29<sup>th</sup></sup> day of *December*, 1975.

FOR THE NUCLEAR REGULATORY COMMISSION



Jan A. Norris, Acting Chief  
Environmental Projects Branch 2  
Division of Site Safety and  
Environmental Analysis

ENVIRONMENTAL IMPACT APPRAISAL  
BY THE DIVISION OF SITE SAFETY AND ENVIRONMENTAL ANALYSIS  
SUPPORTING EXTENSION OF CONSTRUCTION PERMIT NO. CPPR-78  
FOR NORTH ANNA POWER STATION UNIT 2  
DOCKET NO. 50-339

A. Description of the Proposed Action

The proposed action is the issuance of an order relative to extension of the construction completion date for North Anna Power Station Unit 2 from November 1, 1978, to December 1, 1979. This action was requested by the Virginia Electric and Power Company in a letter dated September 26, 1978. The NRC staff has reviewed the request and found that good cause has been shown for extension of the construction permit completion date for Unit 2 by 13 months (see attached Safety Evaluation).

B. Environmental Impacts of the Proposed Action

The environmental impacts associated with construction of Unit 2 were addressed in the NRC staff's Final Environmental Statement (FES, April 1973) and FES Addendum (November 1976) and by the Atomic Safety and Licensing Board in its Partial Initial Decision (LBP-74-39, October 30, 1974) and Initial Decision (LBP-75-70, December 5, 1975). The only environmental impacts possibly resulting from the extension of Unit 2 construction time would be those due to adding 13 months to the total time the area is subjected to temporary construction impacts and continued occupational exposure of the construction workers to radiation from the operation of Unit 1. These impacts are addressed below:

1. Essentially all construction impacts on the area have already occurred since the buildings have been completed and the major components have been installed. The work force of several thousand persons has declined to several hundred and will continue to diminish. Thus, only minimal impacts on the community are likely to result from the extended construction time.
2. During the period between startup of Unit 1 and completion of Unit 2, the construction personnel working on Unit 2 may be exposed to sources of radiation from the operation of Unit 1. The NRC staff estimates that the integrated dose to such workers would be less than 10 man-rems. This is very small compared to about 125,000 man-rems/yr received from natural radiation by the population within 50 miles of the plant. Furthermore, there is little need for construction workers to enter radioactive facilities shared by Units 1 and 2, since they were completed prior to operation of Unit 1. Consequently, no significant impact on construction workers from Unit 1 radiation is expected.

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C. Conclusion and Basis for Negative Declaration

On the basis of the foregoing information and evaluation, the NRC staff finds that, with the exception of the impacts noted above, which are judged to be insignificant, the proposed action would result in no impacts that were not considered in the Commission's FES and FES Addendum and the Atomic Safety and Licensing Board decisions (LBP-74-39 and LBP-75-70).

The Nuclear Regulatory Commission therefore concludes that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.