

JUN 14 1974

Docket No. 50-261

Carolina Power & Light Company
ATTN: Mr. E. E. Utley, Vice President
Bulk Power Supply Department
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

The Commission has issued the enclosed Amendment No. 7 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant. This amendment includes Change No. 32 to the Technical Specifications, Appendix A, and is in response to your request dated March 12, 1974.

This amendment authorizes the continued irradiation of four test assemblies each containing up to twelve gadolinia-bearing fuel rods.

The Federal Register Notice and the Safety Evaluation relating to this action are also enclosed.

Sincerely,

Original Signed by
Karl Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosures:

1. Amendment No. 7
2. Federal Register Notice
3. Safety Evaluation

See next page for cc's

JUN 14 1974

cc w/enclosures:

George F. Trowbridge, Esquire
 Shaw, Pittman, Potts & Trowbridge
 910 - 17th Street, N.W.
 Washington, D. C. 20006

John D. Whisenhunt, Esquire
 Bridges and Whisenhunt
 Bridge Building
 P. O. Box 26
 Florence, South Carolina 29501

Mr. Elmer Whitten
 State Clearinghouse
 Office of the Governor
 Division of Administration
 1205 Pendleton Street
 4th Floor
 Columbia, South Carolina 29201

Mr. Harrell L. Gordner
 Chairman, Darlington County
 Board of Commissioners
 Route 2
 Darlington, South Carolina 29532

Mr. Dave Hopkins
 Environmental Protection Agency
 1421 Peachtree Street, N.E.
 Atlanta, Georgia 30309

Hartsville Memorial Library
 Home and Fifth Avenues
 Hartsville, South Carolina 29550

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 RAPurple, L:OR-1
 DScott, L:OR-1
 SATeets, L:OR-1

This action was reviewed by Dr. Esimburo on 6/14/74. He determined that the amendment should be signed on 6/14/74 in view of the plant being ready to resume operation on 6/15/74, even though OGC concurrence could not be obtained in time. He concluded that the safety issues related to this action have been properly evaluated.
Dwight Scott
6/14/74

OFFICE >	L:OR-1 <i>DS</i>	L:OR-1 <i>AP</i>	OGC	L:OR <i>KRG</i>	L:TR <i>Wood</i>	
SURNAME >	DScott:dc	RAPurple		KRGoller	PWood	<i>Ry</i>
DATE >	6/4/74	6/15/74	6/1/74	6/14/74	6/13/74	

Docket No. 50-261

Carolina Power & Light Company
ATTN: Mr. E. E. Utley, Vice President
Bulk Power Supply Department
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

By letter dated March 12, 1974, you submitted an application for a change to the Technical Specifications appended to License No. DPR-23, as amended, for Unit No. 2 at the H. B. Robinson Steam Electric Plant. The proposed change would authorize the continued irradiation of four test assemblies each containing up to twelve fuel rods with gadolinia dispersed in the fuel pellets.

We have reviewed your application, and conclude that the proposed change does not involve significant hazards considerations. A copy of the Safety Evaluation by the Directorate of Licensing and a copy of the Federal Register Notice are enclosed for your information.

Accordingly, the Commission has issued the enclosed Amendment No. 7 with Change No. 32 appended thereto to Facility Operating License No. DPR-23.

Sincerely,

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosures:

1. Amendment No. 7 and Change No. 32
2. Safety Evaluation for Change No. 32
3. Federal Register Notice

See next page for cc's

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 7
License No. DPR-23

1. The Atomic Energy Commission ("the Commission") has found that:
 - A. The application for amendment by Carolina Power & Light Company ("the licensee") dated March 12, 1974, 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 license, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
2. Accordingly, paragraph 3.B of Facility License No. DPR-23 is hereby amended to read as follows:

"(B) Technical Specifications

The Technical Specifications contained in Appendix A, attached to Facility Operating License No. DPR-23 are revised as indicated in the attachment to

this license amendment. The Technical Specifications, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised."

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

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
Karl Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Attachment:
Change No. 32 to Appendix A
Technical Specifications

Date of Issuance: JUN 14 1974

OFFICE ➤						
SURNAME ➤						
DATE ➤						

ATTACHMENT TO LICENSE AMENDMENT NO. 7

CHANGE NO. 32 TO APPENDIX A TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-23

Delete pages 5.3-1 and 5.3-2 from the Technical Specifications and insert the attached replacement pages.

OFFICE ➤						
SURNAME ➤						
DATE ➤						

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-261

CAROLINA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF FACILITY LICENSE AMENDMENT

Notice is hereby given that the U. S. Atomic Energy Commission ("the Commission") has issued Amendment No. 7 to Facility Operating License No. DPR-23 issued to Carolina Power & Light Company which revised Technical Specifications for operation of the H. B. Robinson Steam Electric Plant Unit No. 2, located in Darlington County, Hartsville, South Carolina. The amendment is effective as of its date of issuance.

The amendment permits changes in the Technical Specifications to authorize the continued irradiation of gadolima-bearing fuel rods in test assemblies during Cycle 3 operation.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act,, as amended ("the Act"), and the Commission's rules and regulations and the Commission has made appropriate findings as required by the Act, and the Commission's rules and regulations in 10 CFR Chapter 1, which are set forth in the license amendment.

For further details with respect to this action, see (1) the application for amendment dated March 12, 1974, (2) Amendment No. 7 to License No. DPR-23 and Change No. 32, and (3) the Commission's related Safety Evaluation. All of these are available for public inspection

OFFICE ➤						
SURNAME ➤						
DATE ➤						

at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina.

A copy of items (2) and (3) may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this **JUN 14 1974**

FOR THE ATOMIC ENERGY COMMISSION

Original signed by:
Robert A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Directorate of Licensing

OFFICE >						
SURNAME >						
DATE >						



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING
SUPPORTING AMENDMENT NO. 7 TO FACILITY OPERATING LICENSE NO. DPR-23
(CHANGE NO. 32 TO APPENDIX A TECHNICAL SPECIFICATIONS)

CAROLINA POWER & LIGHT COMPANY

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

DOCKET NO. 50-261

INTRODUCTION

By letter dated March 12, 1974, Carolina Power & Light Company requested a revision to the Technical Specifications for the H. B. Robinson Steam Electric Plant Unit No. 2 to allow continued irradiation of up to twelve gadolinia-bearing fuel rods in each of four test assemblies during Cycle 3 and to relocate the test assemblies to more central core locations than approved for Cycle 2. The present Technical Specification limits the use of these test assemblies to peripheral regions of the core and to the end of Cycle 2.

EVALUATION

The staff evaluation in support of Technical Specification Change No. 17 dated April 19, 1973, that initially authorized the use of test assemblies containing gadolinia-bearing fuel rods in the H. B. Robinson plant was applicable only for location of these test assemblies in the peripheral regions of the core and only through the end of Cycle 2. The continued use of these test assemblies in subsequent cycles was planned but until the specific core locations were selected, a safety evaluation for subsequent cycles could not be completed. The licensee has now identified the locations proposed for Cycle 3 and has furnished a safety analysis in support of the requested technical specification change.

The significant safety related issues that need to be evaluated for the presently proposed locations are: (1) the power density that will exist in the gadolinia-bearing rods during Cycle 3 due to their more central core location and (2) an evaluation of the ejected control rod accident due to the proximity of the test assemblies to the highest worth control rod. These were the issues that could not previously be evaluated (since core location had not been selected) and were the reasons for limiting the initial approval to the end of Cycle 2 operation. Except for these two issues, the staff determination of acceptability of the use of these test assemblies in Cycle 2 remains valid for Cycle 3 operation.

(1) Power Density

The presence of gadolinia in the UO₂ fuel reduces the melting point and the thermal conductivity of the mixture. To compensate for these effects, the peak gadolinia fuel rod power was limited in Cycle 2 to 80% of the non-gadolinia bearing fuel rod design power limit. This 20% reduction in allowable power conservatively covers both the reduced melting point of gadolinia fuel and the reduced thermal conductivity. Although the new positions proposed for Cycle 3 are more centrally located than for Cycle 2, they coincide with positions having, and test assemblies are being modified to include, sixteen borosilicate burnable poison rods which will suppress the power density in the gadolinia-bearing fuel rods so that the 80% criteria will be met in Cycle 3. The predicted gadolinia-bearing rod power generally increases as a function of cycle burnup, but remains at least 13% below the above mentioned peak gadolinia fuel rod power limit at all times. Thus, we conclude that with respect to power density the proposed location of the gadolinia rods in Cycle 3 is acceptable.

An additional consideration to be evaluated in connection with the use of the gadolinia-bearing fuel rods is the potential material degradation as a result of continued exposure in the core. It is estimated that these rods will have been subjected to an exposure of 17,000 MWd/MTe by the end of Cycle 3. Similar gadolinium-bearing fuel rods have been used in other power reactors for exposure of over 20,000 MWd/MTe with no significant adverse effects. Accordingly, the staff concludes that the continued exposure of the test gadolinia-bearing fuel rods through Cycle 3 is acceptable.

(2) Ejected Control Rod Accident

In Cycle 2, because of: (1) the peripheral location of the test assemblies; (2) the lower-than-normal power in the assemblies; (3) the fact that the test assemblies were not adjacent to a fuel assembly containing a full length control rod; and (4) the fact that the nearest control rod was not the highest worth ejected rod; the conclusion was reached that the test assemblies would not experience severe effects from an ejected control rod accident. It was recognized that the potential effects of this accident would have to be considered prior to continued use in Cycle 3. As proposed, the test elements in Cycle 3 will be adjacent to the location of the highest worth control rod and, therefore, will experience, in the event of an ejected rod accident, the local effects of that accident.

The analysis of an ejected control rod accident during Cycle 3 for normal UO₂ fuel has been performed by the licensee with predicted results that were found to be acceptable to the staff (reference: SER, May 20, 1974). Since the power density in the gadolinia-bearing fuel rods will always be at least 20% less than that in the UO₂ fuel rods that are affected by the ejected rod accident, the effects on the test rods are expected to be no more severe than on the UO₂ fuel. There will be no control rods in the test assemblies; the presence of the test assembly at the proposed location will not increase the probability of an ejected rod accident. Thus, we conclude that the proposed location of the gadolinia-bearing fuel rods is acceptable with respect to postulated accident conditions.

CONCLUSION

On the basis of the above considerations, the staff concludes that: (1) the change does not involve a significant hazards consideration since it does not involve a substantial increase in the probability or consequences of accidents previously considered and does not involve a substantial decrease in the margin of safety; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner.

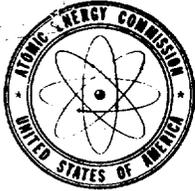


Dunlap Scott
Operating Reactors Branch #1
Directorate of Licensing



Robert A. Purple, Chief
Operating Reactors Branch #1
Directorate of Licensing

Date: June 14, 1974



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

June 14, 1974

Docket No. 50-261

Carolina Power & Light Company
ATTN: Mr. E. E. Utley, Vice President
Bulk Power Supply Department
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

The Commission has issued the enclosed Amendment No. 7 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant. This amendment includes Change No. 32 to the Technical Specifications, Appendix A, and is in response to your request dated March 12, 1974.

This amendment authorizes the continued irradiation of four test assemblies each containing up to twelve gadolinia-bearing fuel rods.

The Federal Register Notice and the Safety Evaluation relating to this action are also enclosed.

Sincerely,

A handwritten signature in cursive script that reads "Karl R. Goller".

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosures:

1. Amendment No. 7
2. Federal Register Notice
3. Safety Evaluation

See next page for cc's

June 14, 1974

cc w/enclosures:

George F. Trowbridge, Esquire
Shaw, Pittman, Potts & Trowbridge
910 - 17th Street, N.W.
Washington, D. C. 20006

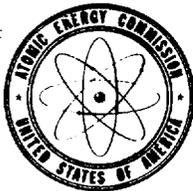
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Mr. Elmer Whitten
State Clearinghouse
Office of the Governor
Division of Administration
1205 Pendleton Street
4th Floor
Columbia, South Carolina 29201

Mr. Harrell L. Gordner
Chairman, Darlington County
Board of Commissioners
Route 2
Darlington, South Carolina 29532

Mr. Dave Hopkins
Environmental Protection Agency
1421 Peachtree Street, N.E.
Atlanta, Georgia 30309

Hartsville Memorial Library
Home and Fifth Avenues
Hartsville, South Carolina 29550



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 7
License No. DPR-23

1. The Atomic Energy Commission ("the Commission") has found that:
 - A. The application for amendment by Carolina Power & Light Company ("the licensee") dated March 12, 1974, 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 license, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
2. Accordingly, paragraph 3.B of Facility License No. DPR-23 is hereby amended to read as follows:

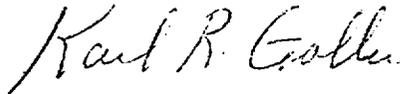
"(B) Technical Specifications

The Technical Specifications contained in Appendix A, attached to Facility Operating License No. DPR-23 are revised as indicated in the attachment to

this license amendment. The Technical Specifications, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised."

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

FOR THE ATOMIC ENERGY COMMISSION



Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Attachment:

Change No. 32 to Appendix A
Technical Specifications

Date of Issuance: June 14, 1974

ATTACHMENT TO LICENSE AMENDMENT NO. 7

CHANGE NO. 32 TO APPENDIX A TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-23

Delete pages 5.3-1 and 5.3-2 from the Technical Specifications and insert the attached replacement pages.

5.3 REACTOR

5.3.1.1 The reactor core contains approximately 71 metric tons of uranium in the form of slightly enriched uranium dioxide pellets. The pellets are encapsulated in Zircaloy - 4 tubing to form fuel rods. Two thirds of the initial core loading will contain pre-pressurized fuel rods. Subsequent core loadings will consist of all pre-pressurized fuel rods. The reactor core is made up of 157 fuel assemblies. Each fuel assembly contains 204 fuel rods. (1)

5.3.1.2 The average enrichment of the initial core is a nominal 2.50 weight percent of U-235. Three fuel enrichments are used in the initial core. The highest enrichment is a nominal 3.10 weight percent of U-235. (2)

5.3.1.3 Reload fuel will be similar in design to the initial core. The enrichment of reload fuel will be no more than 3.5 weight percent of U-235.

Four test assemblies containing gadolinia-bearing fuel rods may be loaded in the core during Cycle 3 operations. The test assemblies, the fuel rods in each assembly, and their locations in the core must conform to the descriptions given in Reference 8 and Reference 9. The test rods must be replaced with rods containing standard fuel before commencing operation for Cycle 4.

5.3.1.4 Burnable poison rods are incorporated in the initial core. There are 816 poison rods in the form of 12-rod clusters, which are located in vacant rod cluster control guide tubes. (3) The burnable poison rods consist of borated pyrex glass clad with stainless steel. (4)

5.3.1.5 There are 45 full-length RCC assemblies and 8 partial-length RCC assemblies in the reactor core. The full-length RCC assemblies contain 144 inch length of silver-indium-cadmium alloy clad with

the stainless steel. The partial-length RCC assemblies contain a 36 inch length of silver-indium-cadmium alloy with the remainder of the stainless steel sheath filled with Al_2O_3 .⁽⁵⁾

- 5.3.1.6 Up to 10 grams of enriched fissionable material may be used either in the core, or available on the plant site, in the form of fabricated neutron flux detectors for the purposes of monitoring core neutron flux.

5.3.2 Reactor Coolant System

- 5.3.2.1 The design of the Reactor Coolant System complies with the code requirements.⁽⁶⁾

- 5.3.2.2 All piping, components and supporting structures of the Reactor Coolant System are designed to Class I requirements.

- 5.3.2.3 The nominal liquid volume of the Reactor Coolant System, at rated operating conditions, is 9343 cubic feet.⁽⁷⁾

References

- (1) FSAR - Section 3.2.3
- (2) FSAR - Section 3.2.1
- (3) FSAR - Section 3.2.1
- (4) FSAR - Section 3.2.3
- (5) FSAR - Sections 3.2.1 & 3.2.3
- (6) FSAR - Table 4.1-9
- (7) FSAR - Table 4.1.1
- (8) 'Description and Evaluation of Test Assemblies Containing Gadolinia Bearing Fuel Rods' submitted with letter dated January 5, 1973, from CP&L to the Director of Licensing."
- (9) "Description and Evaluation of Test Assemblies Containing Gadolinia Bearing Fuel Rods - H. B. Robinson Unit No. 2 Cycle 3" submitted with letter dated March 12, 1974, from CP&L to the Director of Licensing.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING

SUPPORTING AMENDMENT NO. 7 TO FACILITY OPERATING LICENSE NO. DPR-23

(CHANGE NO. 32 TO APPENDIX A TECHNICAL SPECIFICATIONS)

CAROLINA POWER & LIGHT COMPANY

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

DOCKET NO. 50-261

INTRODUCTION

By letter dated March 12, 1974, Carolina Power & Light Company requested a revision to the Technical Specifications for the H. B. Robinson Steam Electric Plant Unit No. 2 to allow continued irradiation of up to twelve gadolinia-bearing fuel rods in each of four test assemblies during Cycle 3 and to relocate the test assemblies to more central core locations than approved for Cycle 2. The present Technical Specification limits the use of these test assemblies to peripheral regions of the core and to the end of Cycle 2.

EVALUATION

The staff evaluation in support of Technical Specification Change No. 17 dated April 19, 1973, that initially authorized the use of test assemblies containing gadolinia-bearing fuel rods in the H. B. Robinson plant was applicable only for location of these test assemblies in the peripheral regions of the core and only through the end of Cycle 2. The continued use of these test assemblies in subsequent cycles was planned but until the specific core locations were selected, a safety evaluation for subsequent cycles could not be completed. The licensee has now identified the locations proposed for Cycle 3 and has furnished a safety analysis in support of the requested technical specification change.

The significant safety related issues that need to be evaluated for the presently proposed locations are: (1) the power density that will exist in the gadolinia-bearing rods during Cycle 3 due to their more central core location and (2) an evaluation of the ejected control rod accident due to the proximity of the test assemblies to the highest worth control rod. These were the issues that could not previously be evaluated (since core location had not been selected) and were the reasons for limiting the initial approval to the end of Cycle 2 operation. Except for these two issues, the staff determination of acceptability of the use of these test assemblies in Cycle 2 remains valid for Cycle 3 operation.

(1) Power Density

The presence of gadolinia in the UO_2 fuel reduces the melting point and the thermal conductivity of the mixture. To compensate for these effects, the peak gadolinia fuel rod power was limited in Cycle 2 to 80% of the non-gadolinia bearing fuel rod design power limit. This 20% reduction in allowable power conservatively covers both the reduced melting point of gadolinia fuel and the reduced thermal conductivity. Although the new positions proposed for Cycle 3 are more centrally located than for Cycle 2, they coincide with positions having, and test assemblies are being modified to include, sixteen borosilicate burnable poison rods which will suppress the power density in the gadolinia-bearing fuel rods so that the 80% criteria will be met in Cycle 3. The predicted gadolinia-bearing rod power generally increases as a function of cycle burnup, but remains at least 13% below the above mentioned peak gadolinia fuel rod power limit at all times. Thus, we conclude that with respect to power density the proposed location of the gadolinia rods in Cycle 3 is acceptable.

An additional consideration to be evaluated in connection with the use of the gadolinia-bearing fuel rods is the potential material degradation as a result of continued exposure in the core. It is estimated that these rods will have been subjected to an exposure of 17,000 MWd/MTe by the end of Cycle 3. Similar gadolinium-bearing fuel rods have been used in other power reactors for exposure of over 20,000 MWd/MTe with no significant adverse effects. Accordingly, the staff concludes that the continued exposure of the test gadolinia-bearing fuel rods through Cycle 3 is acceptable.

(2) Ejected Control Rod Accident

In Cycle 2, because of: (1) the peripheral location of the test assemblies; (2) the lower-than-normal power in the assemblies; (3) the fact that the test assemblies were not adjacent to a fuel assembly containing a full length control rod; and (4) the fact that the nearest control rod was not the highest worth ejected rod; the conclusion was reached that the test assemblies would not experience severe effects from an ejected control rod accident. It was recognized that the potential effects of this accident would have to be considered prior to continued use in Cycle 3. As proposed, the test elements in Cycle 3 will be adjacent to the location of the highest worth control rod and, therefore, will experience, in the event of an ejected rod accident, the local effects of that accident.

The analysis of an ejected control rod accident during Cycle 3 for normal UO₂ fuel has been performed by the licensee with predicted results that were found to be acceptable to the staff (reference: SER, May 20, 1974). Since the power density in the gadolinia-bearing fuel rods will always be at least 20% less than that in the UO₂ fuel rods that are affected by the ejected rod accident, the effects on the test rods are expected to be no more severe than on the UO₂ fuel. There will be no control rods in the test assemblies; the presence of the test assembly at the proposed location will not increase the probability of an ejected rod accident. Thus, we conclude that the proposed location of the gadolinia-bearing fuel rods is acceptable with respect to postulated accident conditions.

CONCLUSION

On the basis of the above considerations, the staff concludes that: (1) the change does not involve a significant hazards consideration since it does not involve a substantial increase in the probability or consequences of accidents previously considered and does not involve a substantial decrease in the margin of safety; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner.



Dunlap Scott
Operating Reactors Branch #1
Directorate of Licensing



Robert A. Purple, Chief
Operating Reactors Branch #1
Directorate of Licensing

Date: June 14, 1974

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-261

CAROLINA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF FACILITY LICENSE AMENDMENT

Notice is hereby given that the U. S. Atomic Energy Commission ("the Commission") has issued Amendment No. 7 to Facility Operating License No. DPR-23 issued to Carolina Power & Light Company which revised Technical Specifications for operation of the H. B. Robinson Steam Electric Plant Unit No. 2, located in Darlington County, Hartsville, South Carolina... The amendment is effective as of its date of issuance.

The amendment permits changes in the Technical Specifications to authorize the continued irradiation of gadolinium-bearing fuel rods in test assemblies during Cycle 3 operation.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act, as amended ("the Act"), and the Commission's rules and regulations and 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.

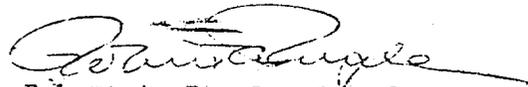
For further details with respect to this action, see (1) the application for amendment dated March 12, 1974, (2) Amendment No. 7 to License No. DPR-23 and Change No. 32, and (3) the Commission's related Safety Evaluation. All of these are available for public inspection

at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina.

A copy of items (2) and (3) may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this 14th day of June, 1974.

FOR THE ATOMIC ENERGY COMMISSION



Robert A. Purple, Chief
Operating Reactors Branch #1
Directorate of Licensing