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Dockets Nos. 50-269 50-270  
and 50-287

Mr. William O. Parker, Jr.  
Vice President - Steam Production  
Duke Power Company  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

P. Check

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos. 78, 78, and 75 for Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3. These amendments consist of changes to the Station's Common Technical Specifications in response to your request dated December 13, 1979. Additional information pertaining to this proposed change was provided in your letters of December 28, 1979 and January 2, 1980.

These amendments revise the core protection safety limits, protective system maximum allowable setpoints, control rod position limits, operational power imbalance envelope and axial power shaping rod position limits for Unit 2 consistent with extending the duration of the Unit's present operating cycle from 297 ± 10 to 363 effective full power days. Editorial changes have been included as discussed and accepted by your staff.

The extension of Cycle 4 for Oconee Nuclear Station, Unit No. 2 does not in any way modify the provisions of the Show Cause Order dated January 2, 1980.

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

Sincerely,

Original signed by  
Robert W. Reid  
Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosures:

1. Amendment No. 78 to DPR-38
2. Amendment No. 78 to DPR-47
3. Amendment No. 75 to DPR-55
4. Safety Evaluation
5. Notice

cc w/enclosures: See next page

\*SEE PREVIOUS YELLOW FOR CONCURRENCE

OFFICE	ORB#4:DOR	ORB#4:DOR	ORB#4:DOR	C-ORB#4:DOR	A-AD-ORP:DOR	OELD
SURNAME	Ringram	SWookey/cb	MFairtile	RReid	WGammill	ourtellotte*
DATE	1/4/80	1/4/80	1/ /80	1/4 /80	1/4/80	1/2/80

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CMiles  
RDiggs  
HDenton  
BJones (12)  
BScharf (10)  
DBrinkman

**Dockets Nos. 50-269, 50-270  
and 50-287**

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Vice President - Steam Production  
Duke Power Company  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242**

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These amendments revise the core protection safety limits, protective system maximum allowable setpoints, control rod position limits, operational power imbalance envelope and axial power shaping rod position limits for Unit 2 consistent with extending the duration of the Unit's present operating cycle from 297 + 10 to 353 + 10 effective full power days. Editorial changes have been included as discussed and accepted by your staff.

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

**Sincerely,**

**Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors**

**Enclosures:**

1. Amendment No. to DPR-38
2. Amendment No. to DPR-47
3. Amendment No. to DPR-55
4. Safety Evaluation
5. Notice

A-AD-ORP:DOR  
WGammill  
12/ /79

**cc w/enclosures: See next page**

OFFICE	ORB#4:DOR	ORB#4:DOR	C-ORB#4:DOR	ORB#4:DOR		OELD
SURNAME	RIngram	SWookey/cb	RReid	MFairtile		<i>Laurtellotte</i>
DATE	12/ /79	12/ /79	12/ /79	12/ /79	12/ /79	12/ /79



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

January 4, 1980

Dockets Nos. 50-269, 50-270  
and 50-287

Mr. William O. Parker, Jr.  
Vice President - Steam Production  
Duke Power Company  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos. 78, 78, and 75 for Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3. These amendments consist of changes to the Station's Common Technical Specifications in response to your request dated December 13, 1979. Additional information pertaining to this proposed change was provided in your letters of December 28, 1979 and January 2, 1980.

These amendments revise the core protection safety limits, protective system maximum allowable setpoints, control rod position limits, operational power imbalance envelope and axial power shaping rod position limits for Unit 2 consistent with extending the duration of the Unit's present operating cycle from 297 + 10 to 363 effective full power days. Editorial changes have been included as discussed and accepted by your staff.

The extension of Cycle 4 for Oconee Nuclear Station, Unit No. 2 does not in any way modify the provisions of the Show Cause Order dated January 2, 1980.

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

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert W. Reid", is written over the typed name.

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosures:

1. Amendment No. 78 to DPR-38
2. Amendment No. 78 to DPR-47
3. Amendment No. 75 to DPR-55
4. Safety Evaluation
5. Notice

cc w/enclosures: See next page

8001180 117

Duke Power Company

cc w/enclosure(s):

Mr. William L. Porter  
Duke Power Company  
Post Office Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esquire  
DeBevoise & Liberman  
700 Shoreham Building  
806 15th Street, N.W.  
Washington, D. C. 20005

Oconee Public Library  
201 South Spring Street  
Walhalla, South Carolina 29691

Honorable James M. Phinney  
County Supervisor of Oconee County  
Walhalla, South Carolina 29621

Director, Technical Assessment  
Division  
Office of Radiation Programs  
(AW-459)  
U. S. Environmental Protection Agency  
Crystal Mall #2  
Arlington, Virginia 20460

U. S. Environmental Protection Agency  
Region IV Office  
ATTN: EIS COORDINATOR  
345 Courtland Street, N.E.  
Atlanta, Georgia 30308

Mr. Francis Jape  
U. S. Nuclear Regulatory Commission  
P. O. Box 7  
Seneca, South Carolina 29678

Mr. Robert B. Borsum  
Babcock & Wilcox  
Nuclear Power Generation Division  
Suite 420, 7735 Old Georgetown Road  
Bethesda, Maryland 20014

Manager, LIS  
NUS Corporation  
2536 Countryside Boulevard  
Clearwater, Florida 33515

cc w/enclosure(s) and incoming  
dtd.: 12/13 & 28, 1979 & 1/2/80

Office of Intergovernmental Relations  
116 West Jones Street  
Raleigh, North Carolina 27603



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

DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 78  
License No. DPR- 38

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duke Power Company (the licensee), dated December 13, 1979, as supplemented December 28, 1979, and January 2, 1980, 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. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR- 38 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 78, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment becomes effective within 5 days after its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Robert W. Reid".

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 4, 1980



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

DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 78  
License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duke Power Company (the licensee), dated December 13, 1979, as supplemented December 28, 1979, and January 2, 1980, 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. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-47 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 78, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment becomes effective within 5 days after its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Robert W. Reid". The signature is fluid and cursive, with the first and last names being more prominent.

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 4, 1980





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

DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 75  
License No. DPR-55

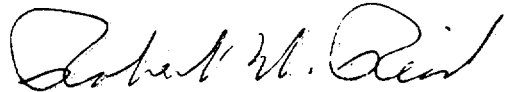
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duke Power Company (the licensee), dated December 13, 1979, as supplemented December 28, 1979, and January 2, 1980, complies with the standards and requirements of the Atomic Energy Act of 1954, 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. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR- 55 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 75, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment becomes effective within 5 days after its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Robert W. Reid". The signature is fluid and cursive, with the first name "Robert" being more prominent.

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 4, 1980

ATTACHMENTS TO LICENSE AMENDMENTS

AMENDMENT NO. 78 TO DPR-38

AMENDMENT NO. 78 TO DPR-47

AMENDMENT NO. 75 TO DPR-55

DOCKETS NOS. 50-269, 50-270 AND 50-287

Revise Appendix A as follows:

Remove the following pages and insert the revised identically numbered pages.

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3.5-16b

3.5-19a

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3.5-25a

3.5-25b

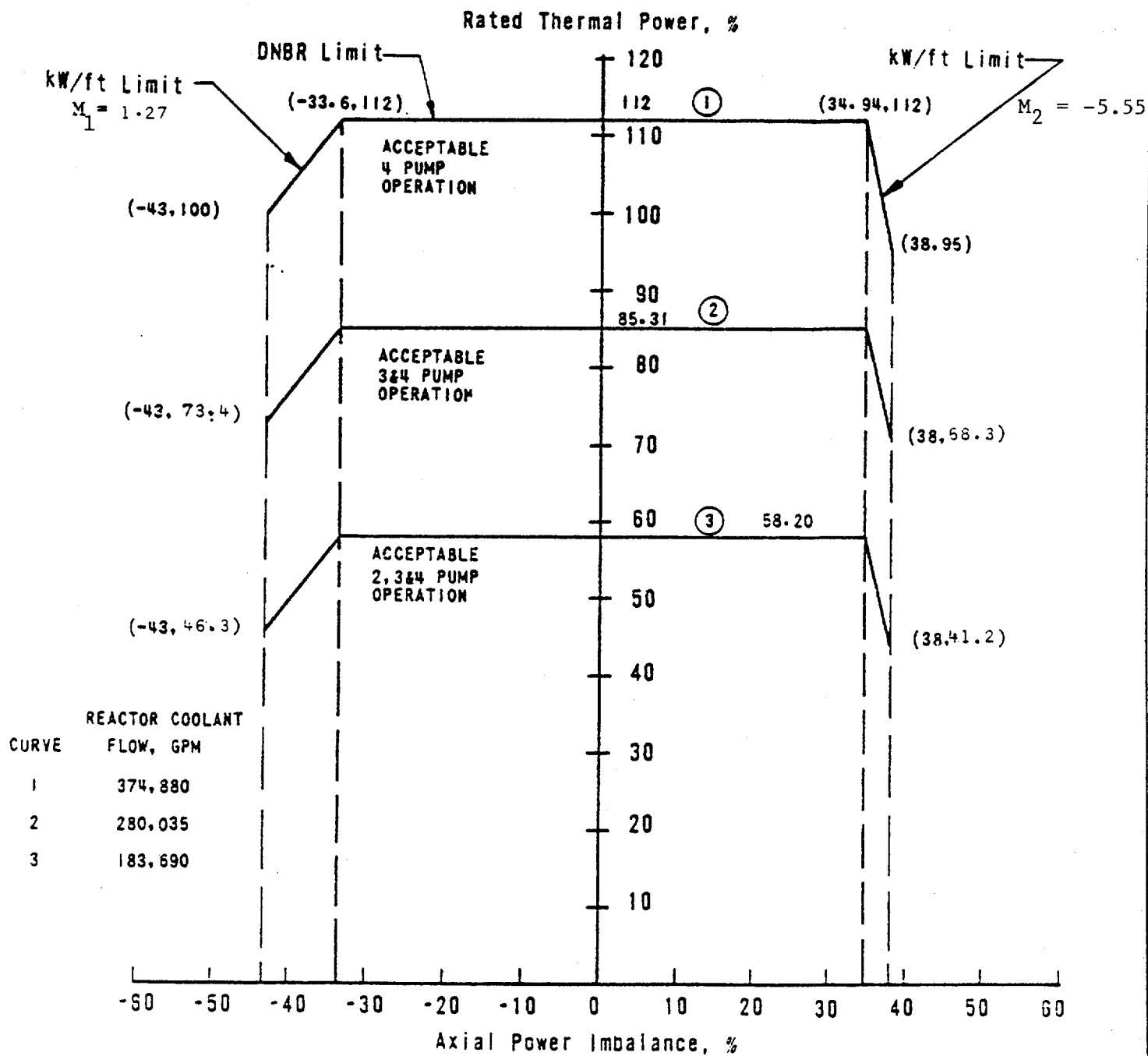
Changes on the revised pages are identified by marginal lines.

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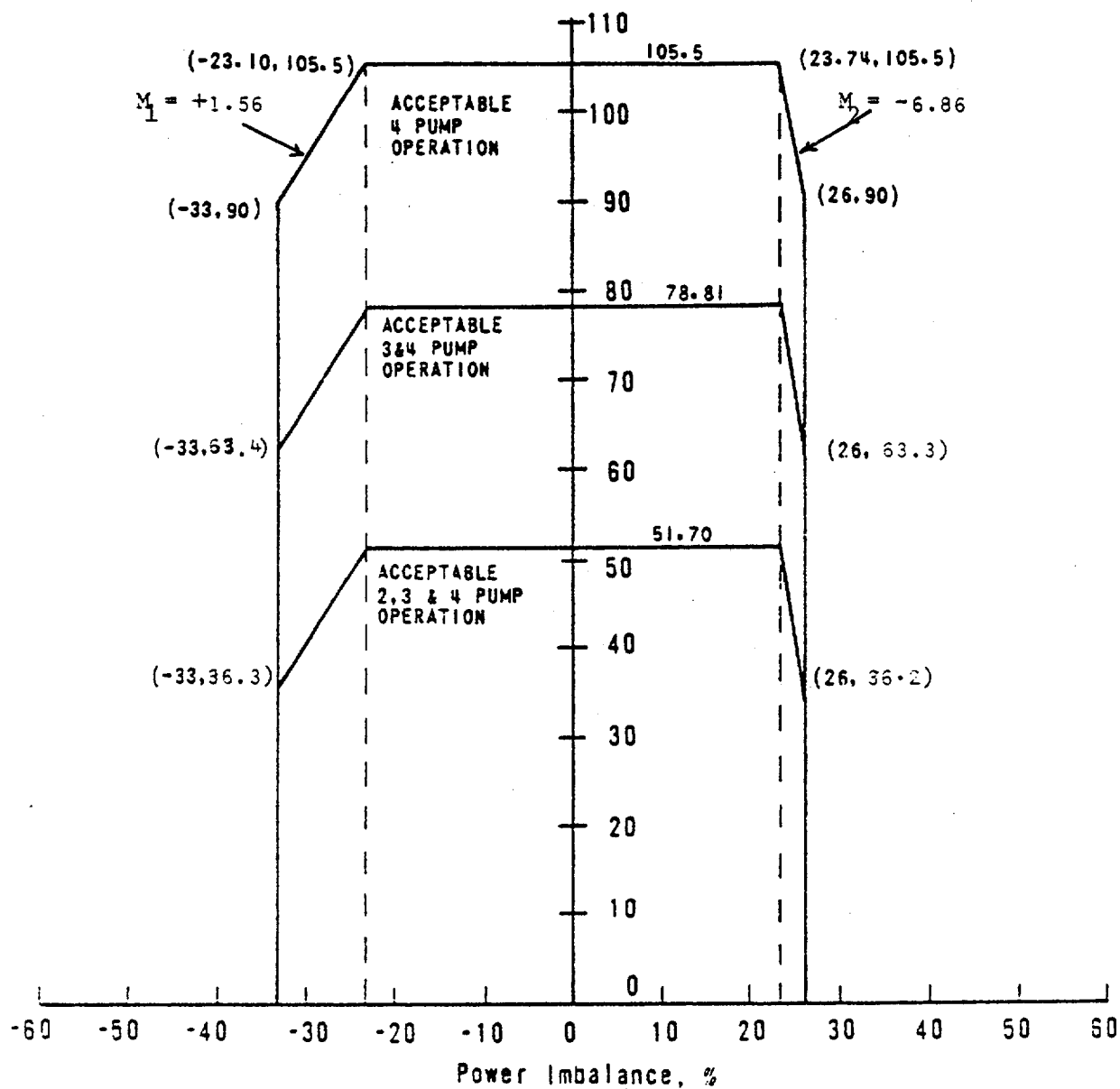


CORE PROTECTION  
SAFETY LIMITS

UNIT 2  
OCONEE NUCLEAR STATION



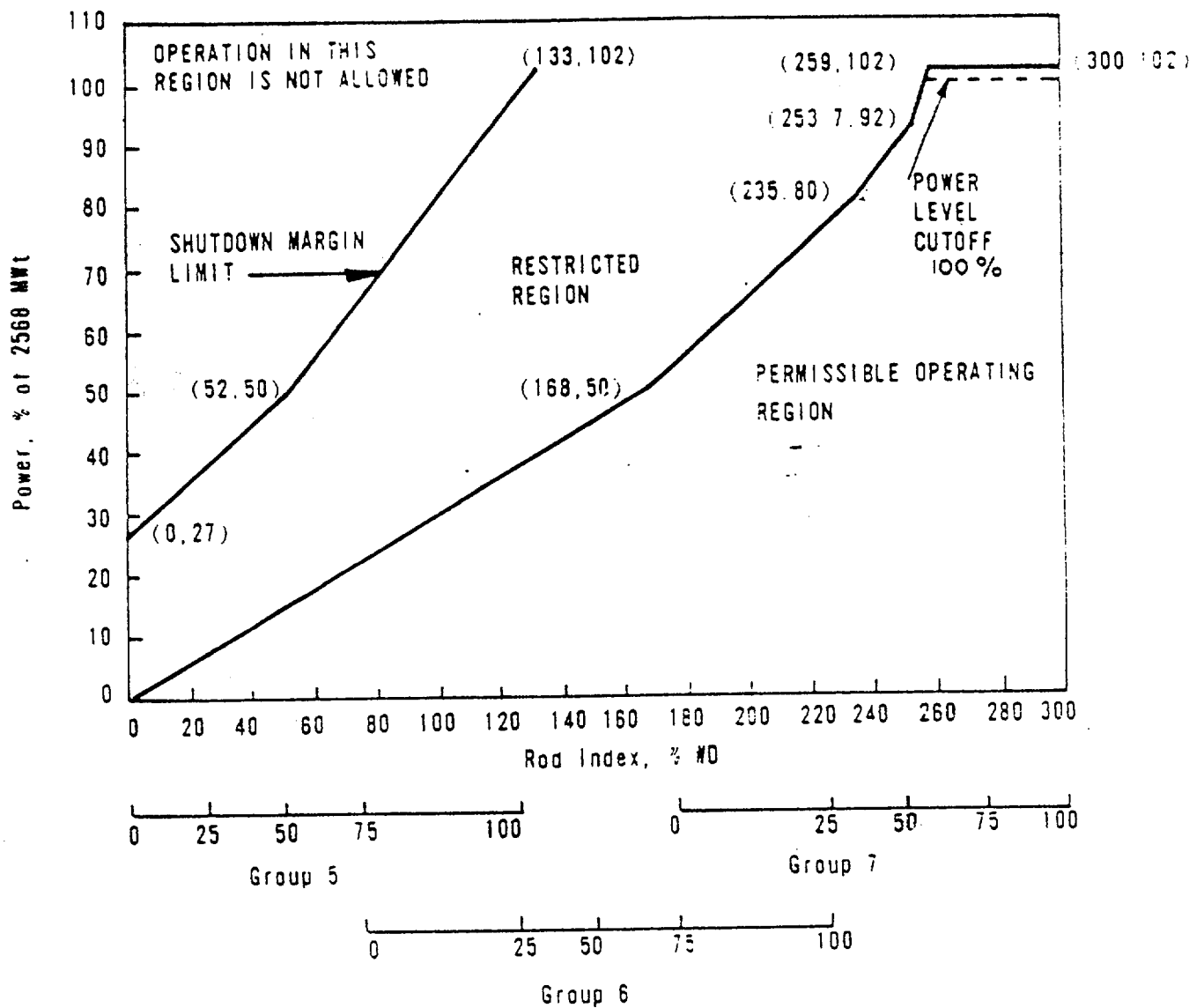
Thermal Power Level, %  
UNACCEPTABLE OPERATION



PROTECTIVE SYSTEM  
MAXIMUM ALLOWABLE SETPOINTS



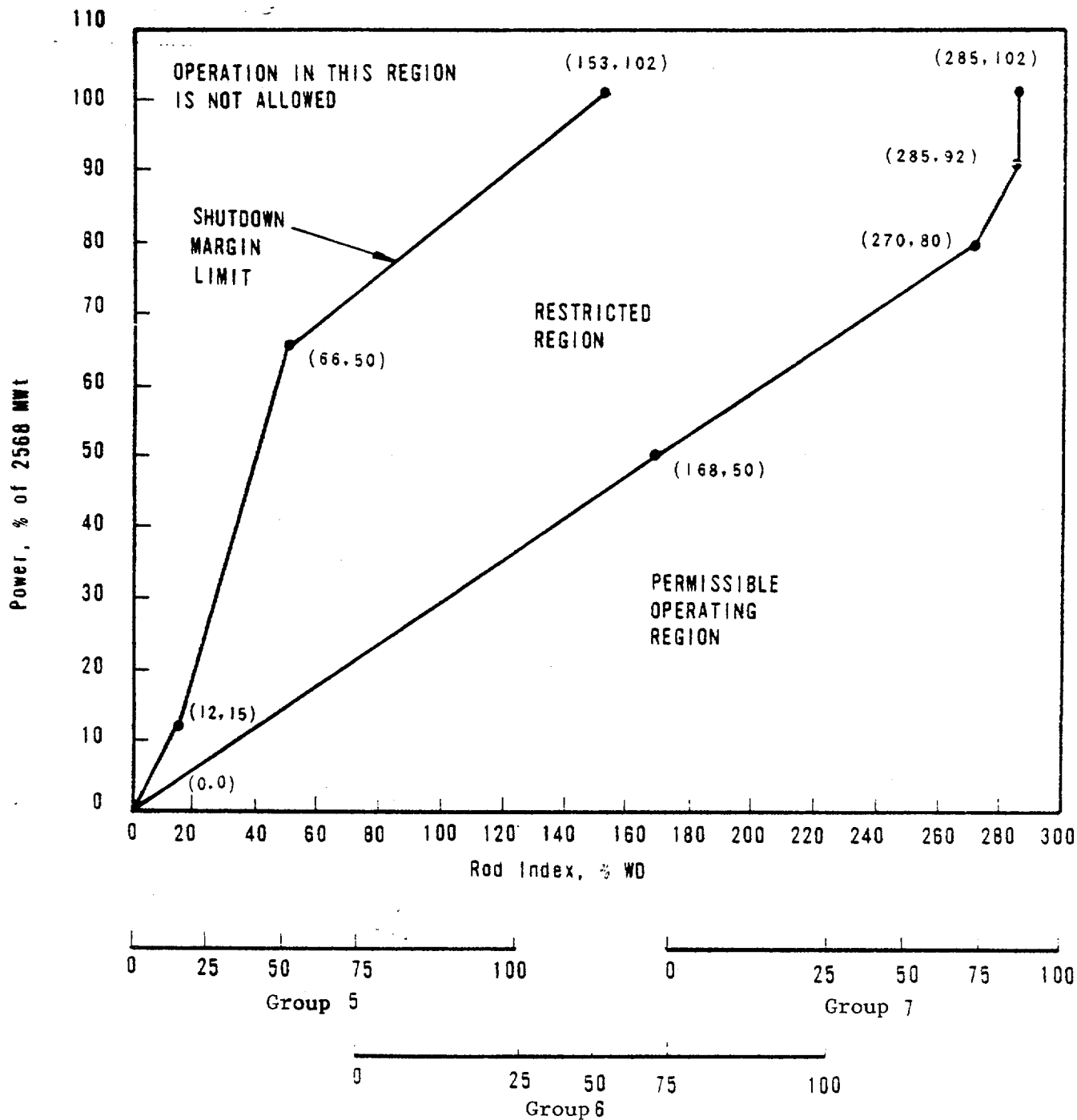
UNIT 2  
OCONEE NUCLEAR STATION



ROD POSITION LIMITS  
FOR FOUR-PUMP OPERATION  
From  $250 \pm 10$  EFPD To 307 EFPD  
OCONEE 2  
OCONEE NUCLEAR STATION  
Figure 3.5.2-1B2

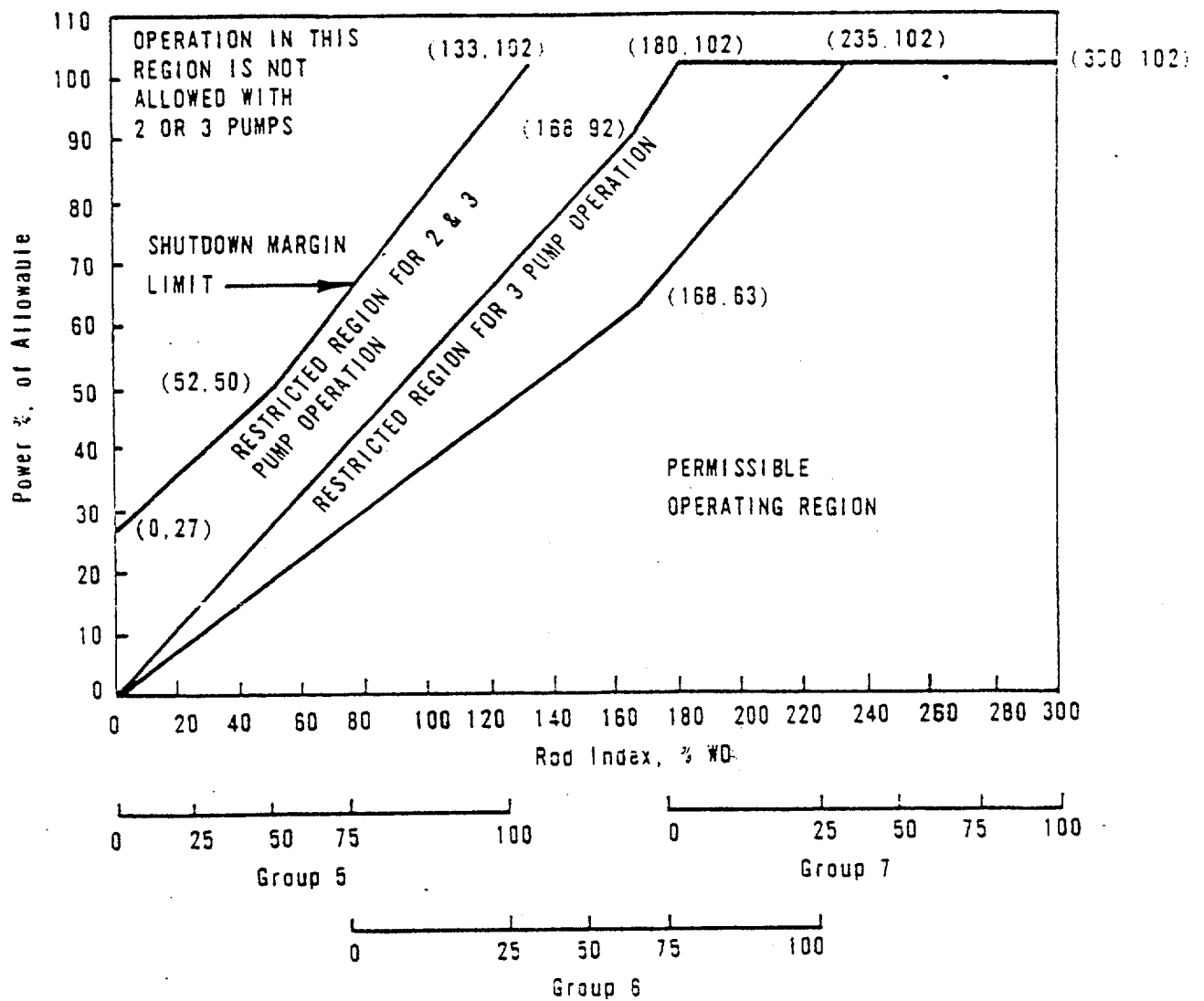






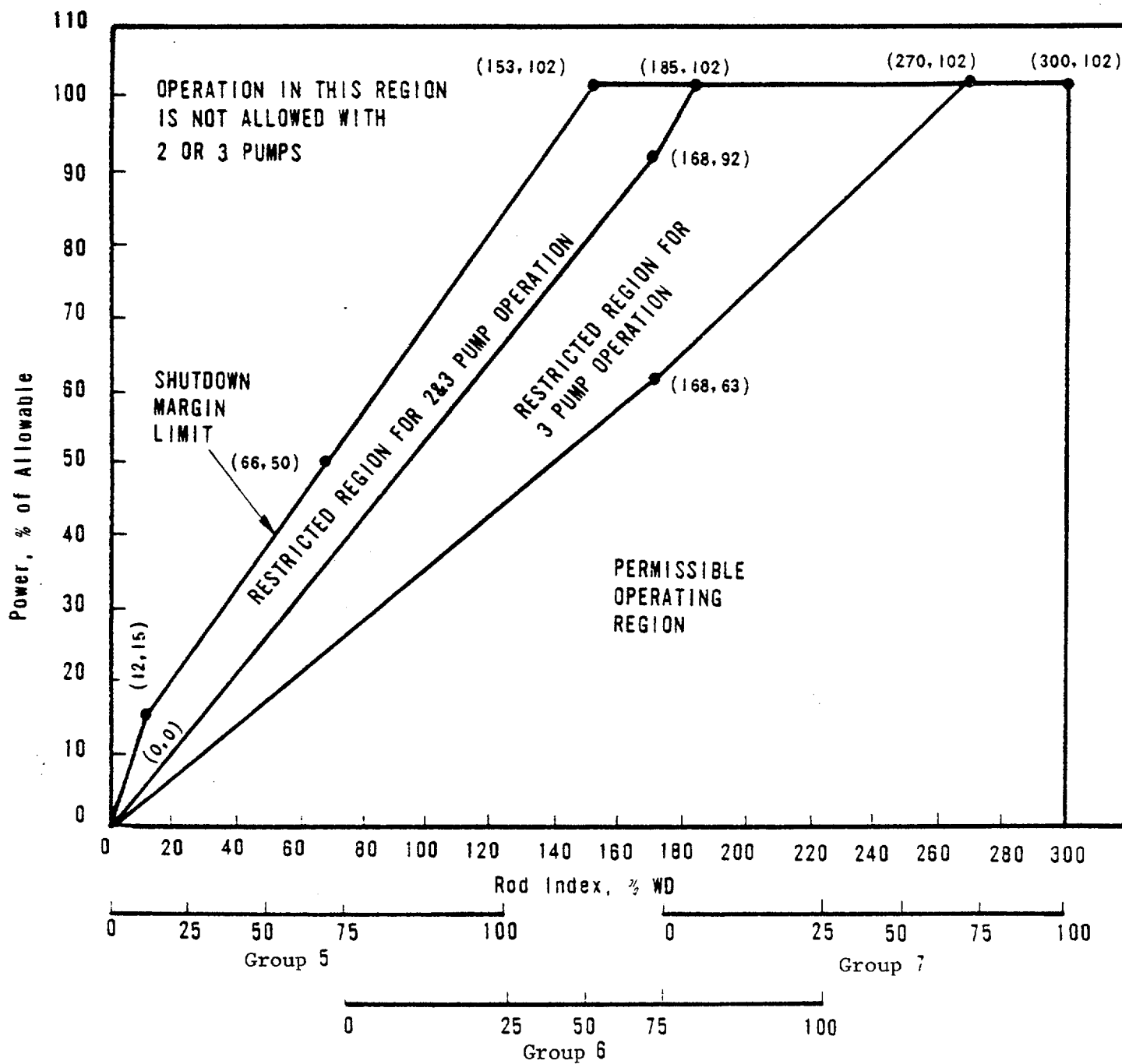
ROD POSITION LIMITS FOR  
FOUR PUMP OPERATION  
FROM 297 TO 363 EFPD  
UNIT 2  
OCONEE NUCLEAR STATION





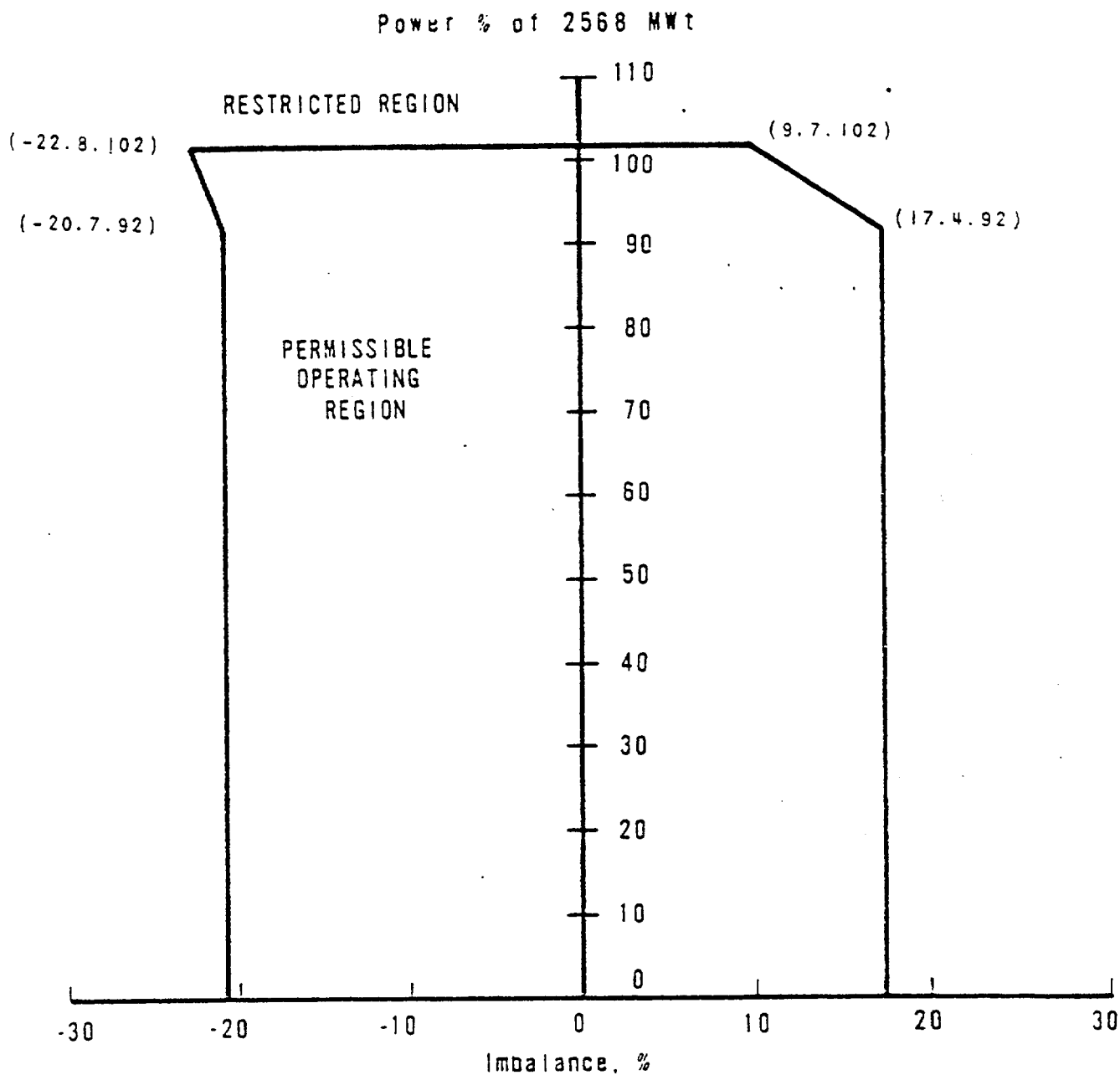
ROD POSITION LIMITS  
FOR TWO AND THREE PUMP OPERATION  
From  $250 \pm 10$  EFPD to 307 EFPD  
OCONEE 2  
OCONEE NUCLEAR STATION  
Figure 3.5.2-2B2





ROD POSITION LIMITS FOR TWO  
AND THREE PUMP OPERATION  
FROM 297 to 363 EFPD  
UNIT 2  
OCONEE NUCLEAR STATION

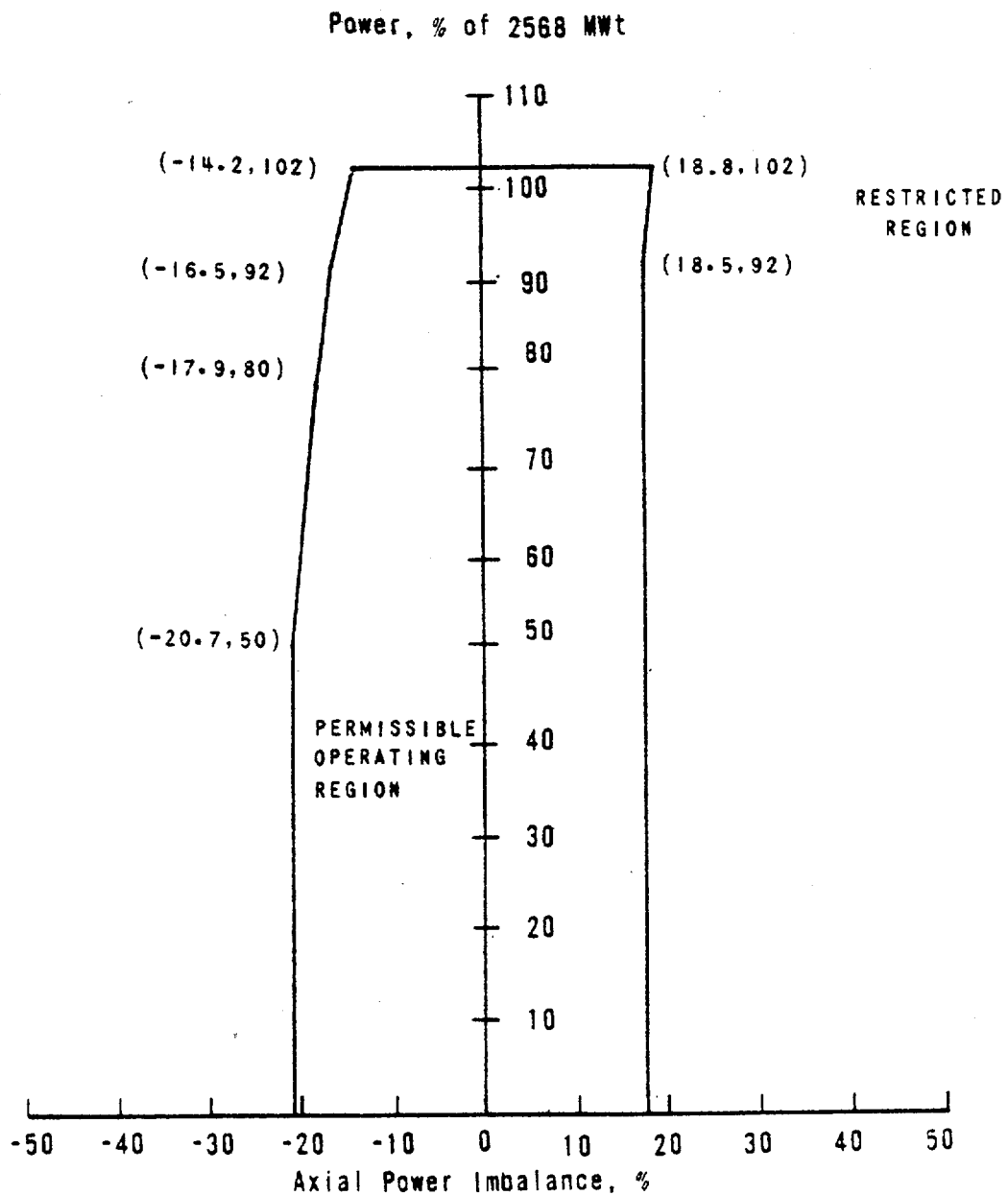




OPERATIONAL POWER IMBALANCE ENVELOPE  
 FOR OPERATION FROM  $250 \pm 10$  EFPD to  
 OCONEE 2 307 EFPD

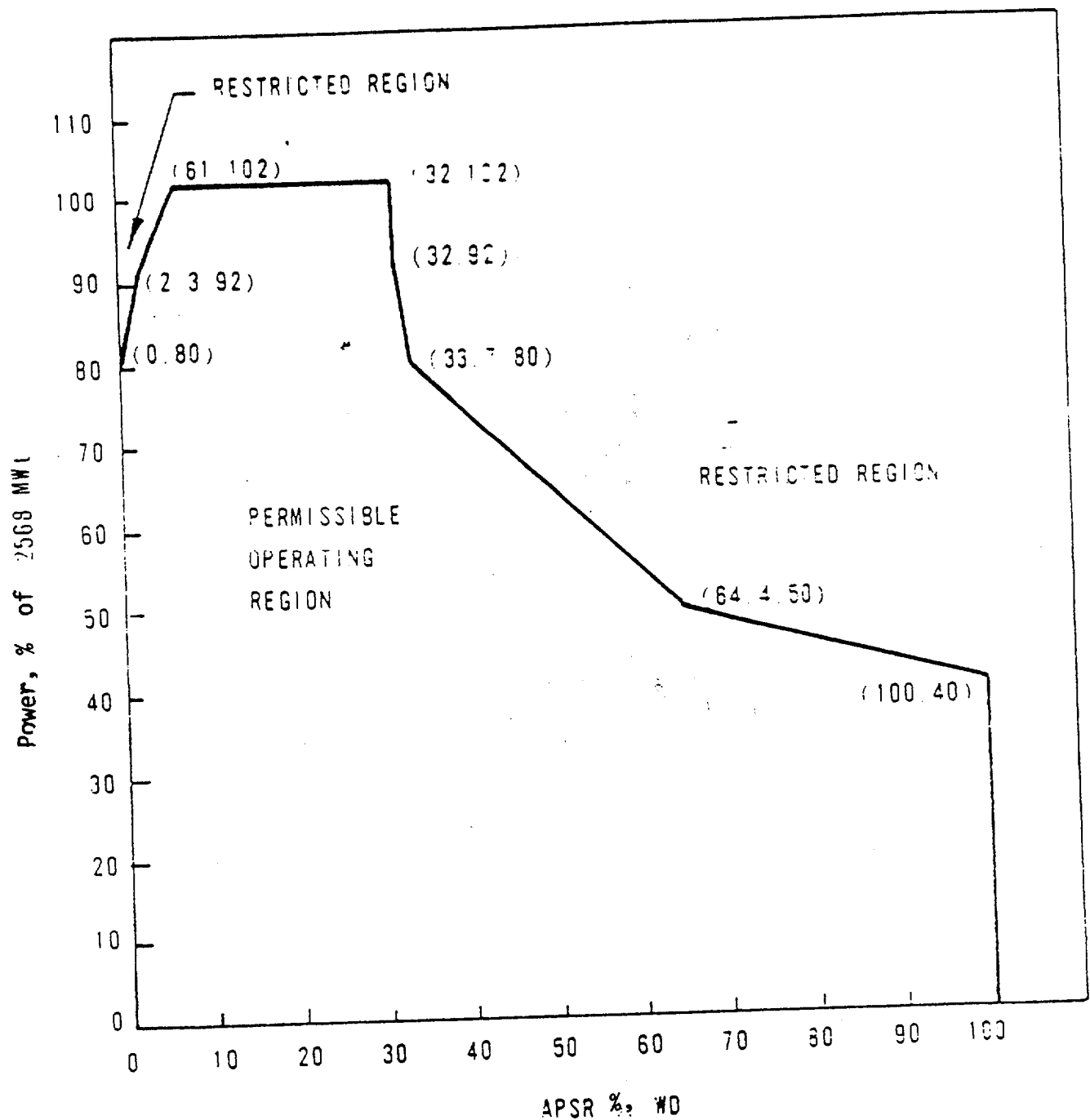


OCONEE NUCLEAR STATION  
 Figure 3.5.2-3B2



OPERATIONAL POWER IMBALANCE  
ENVELOPE  
FOR OPERATION  
FROM 297 TO 363 EFPD  
UNIT 2  
OCONEE NUCLEAR STATION





APSR POSITION LIMITS FOR  
OPERATION

FROM 250  $\pm$  10 EFPD to 307

OCONEE 2 EFPD

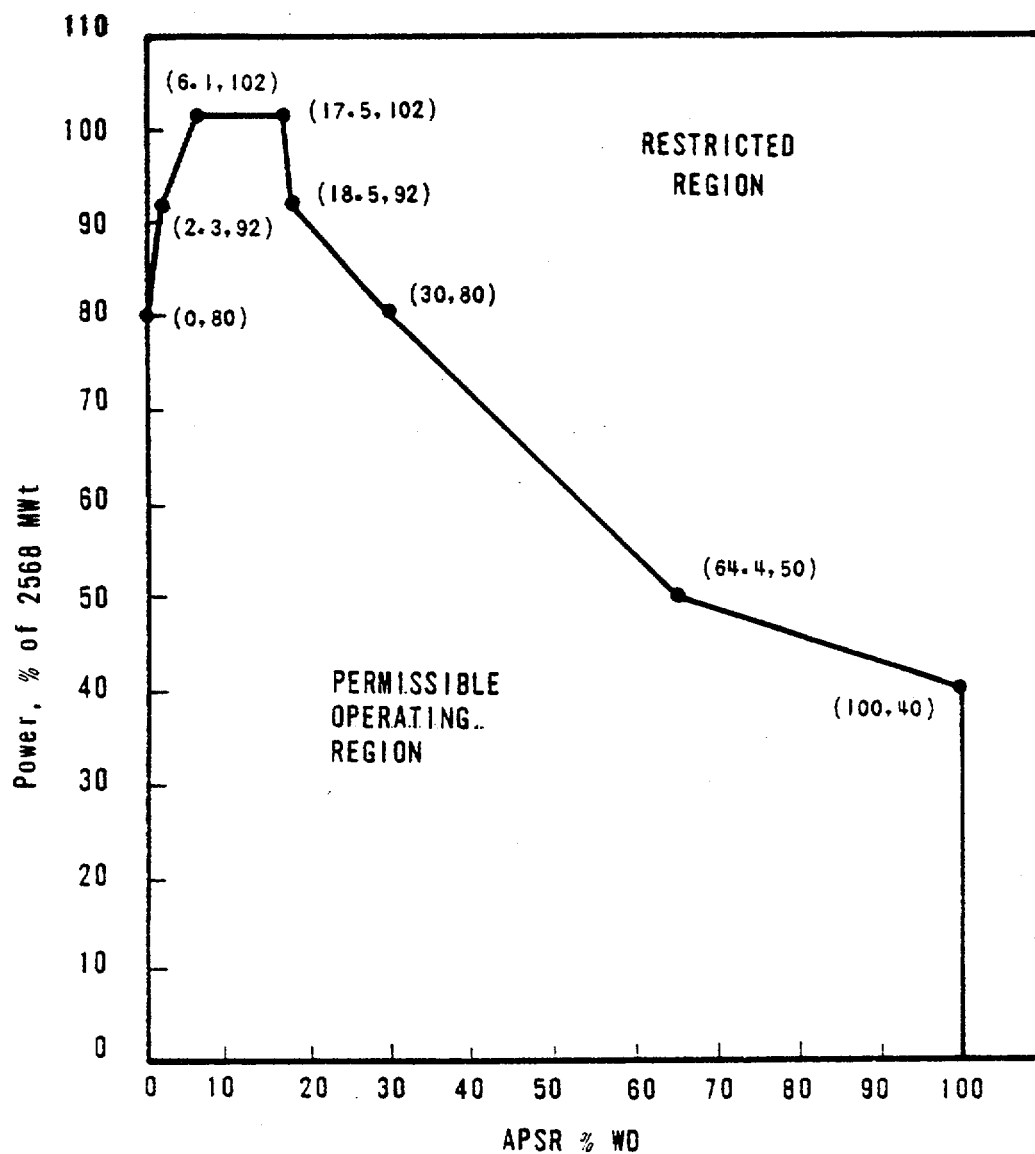
OCONEE NUCLEAR STATION

Figure 3.5.2-4B2

Amendments Nos. 78, 78, & 75

3.5-25a





APSR POSITION LIMITS  
FOR OPERATION  
FROM 297 TO 363 EFPD  
UNIT 2  
OCONEE NUCLEAR STATION



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 78 TO FACILITY OPERATING LICENSE NO. DPR-38  
AMENDMENT NO. 78 TO FACILITY OPERATING LICENSE NO. DPR-47  
AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NO. DPR-55

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS NOS. 1, 2 AND 3

DOCKETS NOS. 50-269, 50-270 AND 50-287

Introduction

By letter dated December 13, 1979, Duke Power Company (DPC) requested amendment of the common Technical Specifications (TS) appended to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3 (ONS-1, 2 & 3). The requested change would modify the ONS-2 figures relating to core protection safety limits, protective system setpoints, control rod position, power imbalance, and axial power shaping rod (APSR) position consistent with extending the duration of the ONS-2 present operating cycle (Cycle 4) from  $297 \pm 10$  effective full power days (EFPD) to 363 EFPD.

Background

By letter dated September 18, 1978, DPC requested amendment of the ONS common TS to provide operating limits consistent with the fuel loading to be used during ONS-2 Cycle 4. The safety analysis supporting this request was contained in the Babcock & Wilcox report "Oconee Unit 2, Cycle 4 Reload Report", BAW 1491, August 1978, which was included in DPC's September 18, 1978 submittal. On December 15, 1978, the Commission issued Amendments Nos. 66, 66 and 63 for the ONS-1, 2 & 3, and a supporting Safety Evaluation which revised the TS to support the operation of ONS-2 during Cycle 4. On June 22, 1979, the Commission issued Amendments Nos. 73, 73 and 70 for the ONS-1, 2 and 3, and a supporting Safety Evaluation which revised the TS in regard to power level cut-off.

Initial criticality for Cycle 4 was achieved on December 27, 1978. The 100% power level of 2568 MW(t) was reached on January 9, 1979. It is presently estimated that the current fuel loading will achieve its design cycle length of  $297 \pm 10$  EFPD on January 5, 1980. This would normally be the point at which ONS-2 would shut-down and begin refueling for operation in Cycle 5.

Due to an extended refueling and modification outage of ONS-1 and the associated difficulties of managing concurrent outages and load considerations, DPC has requested by letter dated December 13, 1979, an extension of their ONS-2 Cycle 4 by about 66 EFPD.

Based upon an ongoing Commission review on the subject of control rod guide tube wear at nuclear facilities, it was determined that the review of the ONS-2 Cycle 4 extension would include an evaluation on this subject. On December 20, 1979, DPC

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presented to the Commission preliminary results of their control rod guide tube inspection program. Additional information was provided by letter dated December 28, 1979.

### EVALUATION

A comprehensive evaluation of Cycle 4 for its nominal design cycle length is given in our Safety Evaluation of December 15, 1978. This evaluation addresses only those issues which are pertinent to the extension of Cycle 4 from  $297 \pm 10$  to 363 EFPD. The main differences are discussed below.

- 1) An increase in the estimated residence time for all fuel batches in the current Cycle 4 fuel load by about 1584 Effective Full Power Hours (EFPH) (66 EFPD) and its effect on cladding creep collapse:

Babcock & Wilcox (B&W) generic analyses, which have been approved by the Commission, show that the time to rod cladding collapse will be in excess of 30,000 EFPH. At the conclusion of the extended ONS-2 Cycle 4 operation no fuel rod will have accumulated 30,000 EFPH. Therefore, the original Cycle 4 analysis is bounding.

- 2) An increase in the core burnup in MWD/MTU and its effects on rod bow, cladding strain, and fission gas release and associated internal rod pressures:
  - a. DPC has applied a rod bow departure from nucleate boiling ratio (DNBR) penalty of 11.2% to all analyses that define plant operating limits and to design transients, up to a maximum burnup of 33,000 MWD/MTU (Ref. 2). However, subsequent rod bow penalty analysis done by B&W, and accepted (after being revised by B&W) by the Commission (Ref. 3) indicated that the 11.2% penalty is highly conservative. Therefore, the extended Cycle 4 operation is well protected against the effects of rod bow.
  - b. In Reference 4 the anticipated cladding strain for Mark B-2 fuel (most limiting for Cycle 4 operation because of its low initial density) was shown to be less than 1% of the plastic strain limit for burnup to 55,000 MWD/MTU. The maximum anticipated burnup at the end of the extended Cycle 4 is well below 55,000 MWD/MTU.
  - c. B&W calculations using the TACO Code which we have approved for use in the range of this analysis (Ref. 5), have shown that changes in internal fuel rod pressures and average temperatures due to fission gas release are acceptable up to 42,000 MWD/MTU burnup. The maximum anticipated burnup at the end of the extended Cycle 4 is well below 42,000 MWD/MTU.
- 3) A decrease in calculated shutdown margin at the end of cycle (EOC):

The shutdown margin was calculated to be  $1.45 \Delta k/k$  at the EOC 4. However, that calculation was carried out for a cycle life of 250 EFPD. At 250 EFPD in Cycle 4, the transient bank 7 is nearly fully inserted. After 250 EFPD this bank starts to be withdrawn, thus increasing the shutdown margin over the calculated value of  $1.45 \Delta k/k$ . Therefore, the requested extension in Cycle 4 will not decrease the EOC shutdown margin as calculated in

the Cycle 4 Reload Report (Ref. 2).

- 4) An increase in the negative moderator temperature coefficient (MTC) and its effect on dropped rod transient and the steam line break (SLB) accident:

At the end of the proposed extension in Cycle 4, the MTC will be  $-2.68 \text{ E-4 } \Delta k/k\text{-}^\circ\text{F}$  as opposed to an EOC 4 (Ref. 2) value of  $-2.58 \text{ E-4 } \Delta k/k\text{-}^\circ\text{F}$ . However, in the dropped rod transient and the SLB accident analyses, an EOC MTC value of  $-3.0 \text{ E-4 } \Delta k/k\text{-}^\circ\text{F}$  was used, thus bounding the new MTC value at the end of the extended Cycle 4.

- 5) An increase in the Negative Doppler Coefficient and its effect on the rod ejection accident:

The EOC 4 (Ref. 2) value of the Doppler Coefficient is  $-1.59 \text{ E-5 } \Delta k/k\text{-}^\circ\text{F}$ . This negative value will increase during the additional 66 EFPD of the Cycle 4 extension period due to the U-238 accumulation. A conservative value of  $-1.33 \text{ E-5 } \Delta k/k\text{-}^\circ\text{F}$  was used in the rod ejection accident analysis included in DPC's Final Safety Analysis Report (FSAR). Therefore, the Doppler Coefficient change during the extended Cycle 4 operation will result in an increase in the safety margin above that assumed in the FSAR.

The TS would be revised to establish new reactor protection system limits and set points to ensure operation of the core within the prescribed DNB and accident limits such as peak clad temperature. The TS curves (which are acceptable) were derived following the methodology of B&W Topical Report BAW-10121 entitled RPS Limits and Set Points, June 1978.

These curves are the part of the input used in the evaluation of transients and accidents.

Based upon our review of the fuel mechanical design, nuclear design, thermal-hydraulic analysis, and accident and transient analysis which is summarized in the five point evaluation above, we conclude that the requested Cycle 4 extension for ONS-2 and the associated TS changes do not increase the probability or consequences of accidents or malfunctions previously considered nor involve a significant decrease in a safety margin.

#### Control Rod Guide Tube Wear

By letter dated November 23, 1979, the Commission requested DPC to provide detailed information on the wear characteristics of the control rods on the guide tubes in fuel assemblies at the ONS. In response, DPC engaged B&W to perform confirmatory inspections on selected control rod guide tubes. The purpose of the inspections was to provide assurance that the fuel could sustain the proposed extended Cycle 4 operation at ONS-2 without experiencing through-the-wall wear in the guide tubes, in addition to providing generic information on B&W control rod guide tube wear. The results of the preliminary inspection program were presented to the Commission at a December 20, 1979 meeting. Additional information was provided by DPC's letter dated December 28, 1979.

The inspections were performed by Eddy Current Test (ECT) techniques on fuel assemblies from the ONS-1 and 3 spent fuel pools. The EFPD of operation experienced by the inspected fuel ranged from 264 EFPD to 793 EFPD.

The ECT measurements that were performed using an encircling coil technique and calibrated with machined standards are considered preliminary inspections by the Commission. Results of the inspections indicated minimal loss of wall thickness due to wear of the Zircaloy guide tubes by fretting action of the stainless steel clad control rods in the parked position.

No through-wall wear was observed in any of the tubes examined, and the maximum degradation reported was no greater than 24% through-wall. To provide additional assurance that guide tube wear indicated by the test results would not affect the structural integrity of the fuel, B&W reviewed the strength aspects of degradation.

The review considered uniform circumferential wear, one-sided wear, and two-sided wear. Preliminary results indicate that the allowable wear in the limiting wear scenario would be in excess of 50% through-wall.

Based on the guide tube wear potential indicated by the ECT examinations, and the stress analysis results which included wear degradation, B&W and DPC concluded that control rod guide tube wear does not appear to be a significant problem in B&W fuel and the extension of ONS-2, Cycle 4 will not compromise the structural integrity of the fuel.

We agree with the preliminary conclusions reached by DPC and B&W to the extent that the ECT measurements appear to indicate that there is a sufficient margin between the actual wear observed or expected during the extension of Cycle 4 and design limitations. Additional confirmatory evidence on the conservatism of the ECT measurements using the encircling coil technique is expected to be available in February 1980, based upon the results from surveillance programs currently being formulated by B&W and licensees of other B&W plants.

Our approval for extending the current fuel cycle for ONS-2, based on the preliminary ECT inspections, has considered the following:

- 1) guide tube wear is a time-dependent process,
- 2) available evidence indicates that a sufficient margin exists between guide tube wear observed to date in B&W plants and design limits, and
- 3) confirmatory inspections are planned for February 1980.

#### ENVIRONMENTAL CONSIDERATIONS

We have determined that the amendments do 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 amendments involve 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 these amendments.

### CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 4, 1980

### References

1. Letter, W. O. Parker (Duke Power Company), to H. R. Denton (NRC), December 13, 1979.
2. Oconee-2, Cycle 4 Reload Report, BAW-1491, August 1978.
3. Letter, J. H. Taylor (B&W), to S. A. Varga (NRC), June 22, 1979.
4. Oconee-2, Cycle 3 Reload Report, BAW-1452, April 1977.
5. TACO - Fuel Pin Performance Analysis, BAW-10087.
6. Oconee-2, Cycle 5 Reload Report, BAW-1565, October 1979.
7. Letter, W. O. Parker (Duke Power Company), to H. R. Denton (NRC), December 28, 1979.
8. Letter, R. W. Reid (NRC), to W. O. Parker (Duke Power Company), December 15, 1978.
9. Letter, R. W. Reid (NRC), to W. O. Parker (Duke Power Company), November 23, 1979.
10. Letter, W. O. Parker (Duke Power Company), to H. R. Denton (NRC), January 2, 1980.
11. RPS Limits and Setpoints, BAW-10121, June 1978.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKETS NOS. 50-296, 50-270 AND 50-287DUKE POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITYOPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 78, 78 and 75 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, issued to Duke Power Company, (the licensee), which revised the Station's common Technical Specifications for operation of the Oconee Nuclear Station, Units Nos. 1, 2 and 3, located in Oconee County, South Carolina. The amendments become effective within five days after the date of issuance.

These amendments revise the core protection safety limits, protective system setpoints, control rod position, power imbalance, and axial power shaping rod position for Unit 2 consistent with extending the duration of the Unit's present operating cycle (Cycle 4) from  $297 \pm 10$  to 363 effective full power days.

The application for the amendments 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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to

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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 these amendments.

For further details with respect to this action, see (1) the application for amendments dated December 13, 1979, as supplemented December 28, 1979 and January 2, 1980, (2) Amendments Nos. 78, 78 , and 75 , to Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., and at the Oconee County Library, 201 South Spring Street, Walhalla, South Carolina. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 4th day of January 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors