August 23, 1985

DMB 016

Docket No. 50-278

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Mr. Edward G. Bauer, Jr.
Vice President and General Counsel
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Dear Mr. Bauer:

SUBJECT: TECHNICAL SPECIFICATION AMENDMENT TO PERMIT RELOADING AND OPERATING PEACH BOTTOM ATOMIC POWER STATION, UNIT 3, FOR CYCLE 7

The Commission has issued the enclosed Amendment No. 114 to Facility Operating License No. DPR-56 for the Peach Bottom Atomic Power Station, Unit No. 3. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated January 7, 1985, as amended by letter dated April 1, 1985.

The changes to the TSs permit reactor operation of Peach Bottom Unit No. 3 with Reload No. 6 (Cycle 7).

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

"ORIGINAL SIGNED BY:"

Gerald E. Gears, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosure:
1. Amendment No. 114 to DPR-56
2. Safety Evaluation

cc w/enclosure:
See next page

ORB#4:DL	ORB#4:DL	ORB#4:DL	OELD	AD:ORB:DL
RIngram	GGears;cf	JStolz	L. Finkelstein	GLainas
8/8/85	8/13/85	8/13/85	8/15/85	8/20/85

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P PDR

Mr. E. G. Bauer, Jr.
Philadelphia Electric Company

Peach Bottom Atomic Power Station,
Units 2 and 3

cc:
Mr. Eugene J. Bradley
Assistant General Counsel
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Troy B. Conner, Jr., Esq.
1747 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Thomas A. Deming, Esq.
Assistant Attorney General
Department of Natural Resources
Annapolis, Maryland 21401

Philadelphia Electric Company
ATTN: Mr. R. Fleishmann
Peach Bottom Atomic
Power Station
Delta, Pennsylvania 17314

Mr. M. J. Cooney, Superintendent
Generation Division - Nuclear
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Mr. Anthony J. Pietrofitta, General Manager
Power Production Engineering
Atlantic Electric
P. O. Box 1500
1199 Black Horse Pike
Pleasantville, New Jersey 08232

Resident Inspector
U.S. Nuclear Regulatory Commission
Peach Bottom Atomic Power Station
P.O. Box 399
Delta, Pennsylvania 17314

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Mr. R. A. Heiss, Coordinator
Pennsylvania State Clearinghouse
Governor's Office of State Planning
and Development
P.O. Box 1323
Harrisburg, Pennsylvania 17120

Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Mr. Albert R. Steel, Chairman
Board of Supervisors
Peach Bottom Township
R. D. #1
Delta, Pennsylvania 17314

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

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.114
License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Philadelphia Electric Company, et al. (the licensee) dated January 7, 1985, as amended by letter dated April 1, 1985, 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 2.C.(2) of Facility Operating License No. DPR-56 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 114, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 23, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 114

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change.

Remove	Insert
iv	iv
133d	133d
133e	133e
142	142
142a	142a
142e	--
142h	142h
142i	142i

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3.5.1.G	DELETED	
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Amendment No. 14, 47, 45, 46, 62, 79, 82, 104, 107, 114

TABLE 3.5.K.2

OPERATING LIMIT MCPR VALUES
FOR VARIOUS CORE EXPOSURES*

Fuel Type	MCPR Operating Limit For Incremental Cycle Core Average Exposure**	
	BOC to 2000 MWD/t Before EOC	2000 MWD/t before EOC To EOC
BP/P8X8R	1.27	1.28
LTA	1.27	1.28

* If requirement 4.5.K.2.a is met.

** These values shall be increased by 0.01 for single loop operation.

Amendment No. 42, 62, 77, 79, 83, 92, 107, 114

TABLE 3.5.K.3

OPERATING LIMIT MCPR VALUES
FOR VARIOUS CORE EXPOSURES*

Fuel Type	MCPR Operating Limit For Incremental Cycle Core Average Exposure**	
	BOC to 2000 MWD/t Before EOC	2000 MWD/t before EOC To EOC
BP/P8X8R	1.33	1.40
LTA	1.33	1.40

* If surveillance requirement 4.5.K.2 is not performed.

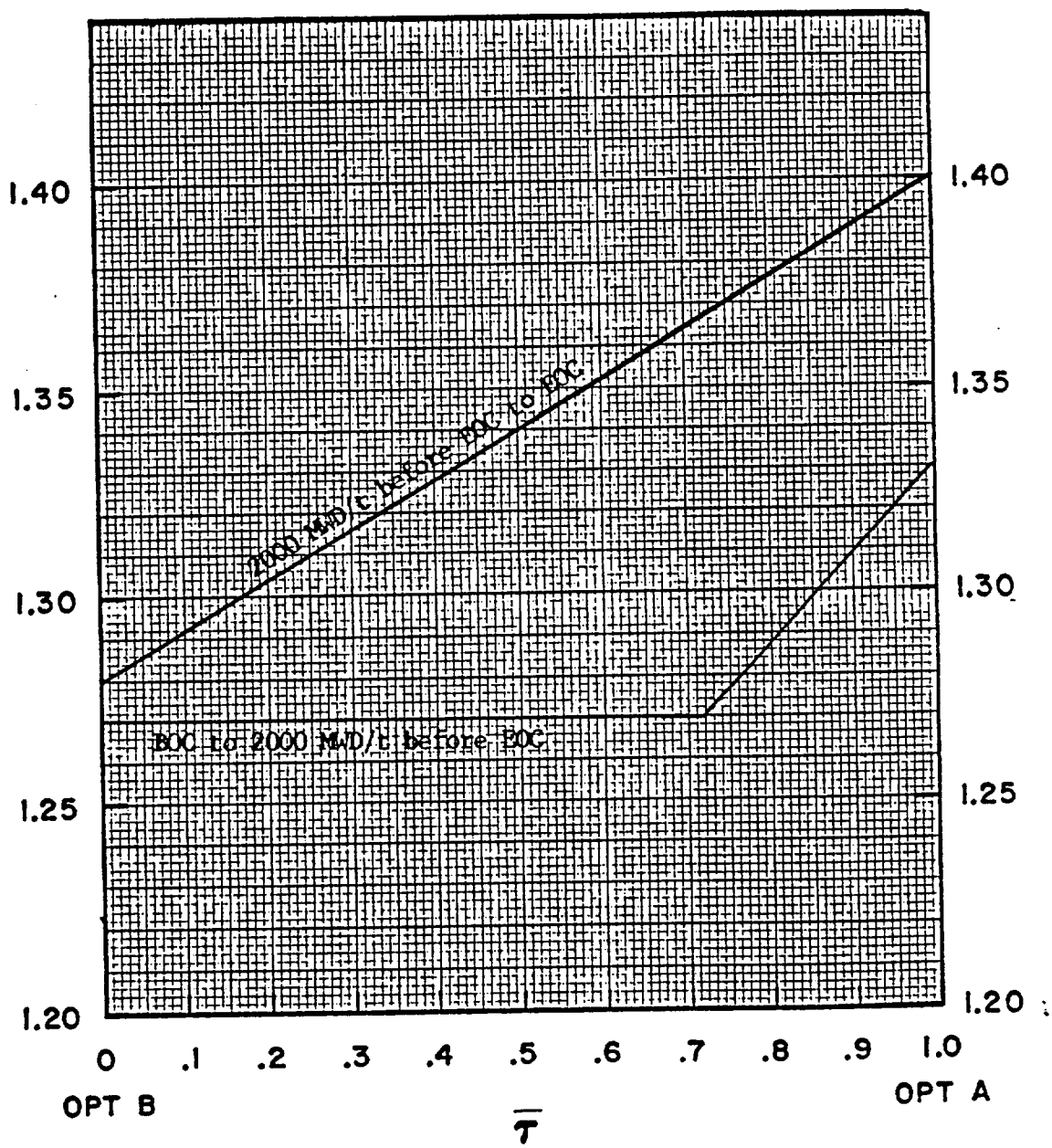
** These values shall be increased by 0.01 for single loop operation.

Amendment No. 79, 85, 92, 107, 114

PEACH BOTTOM UNIT 3

FIGURE 3.5.K.1 MCPR OPERATING LIMIT vs τ

FUEL TYPE LTA

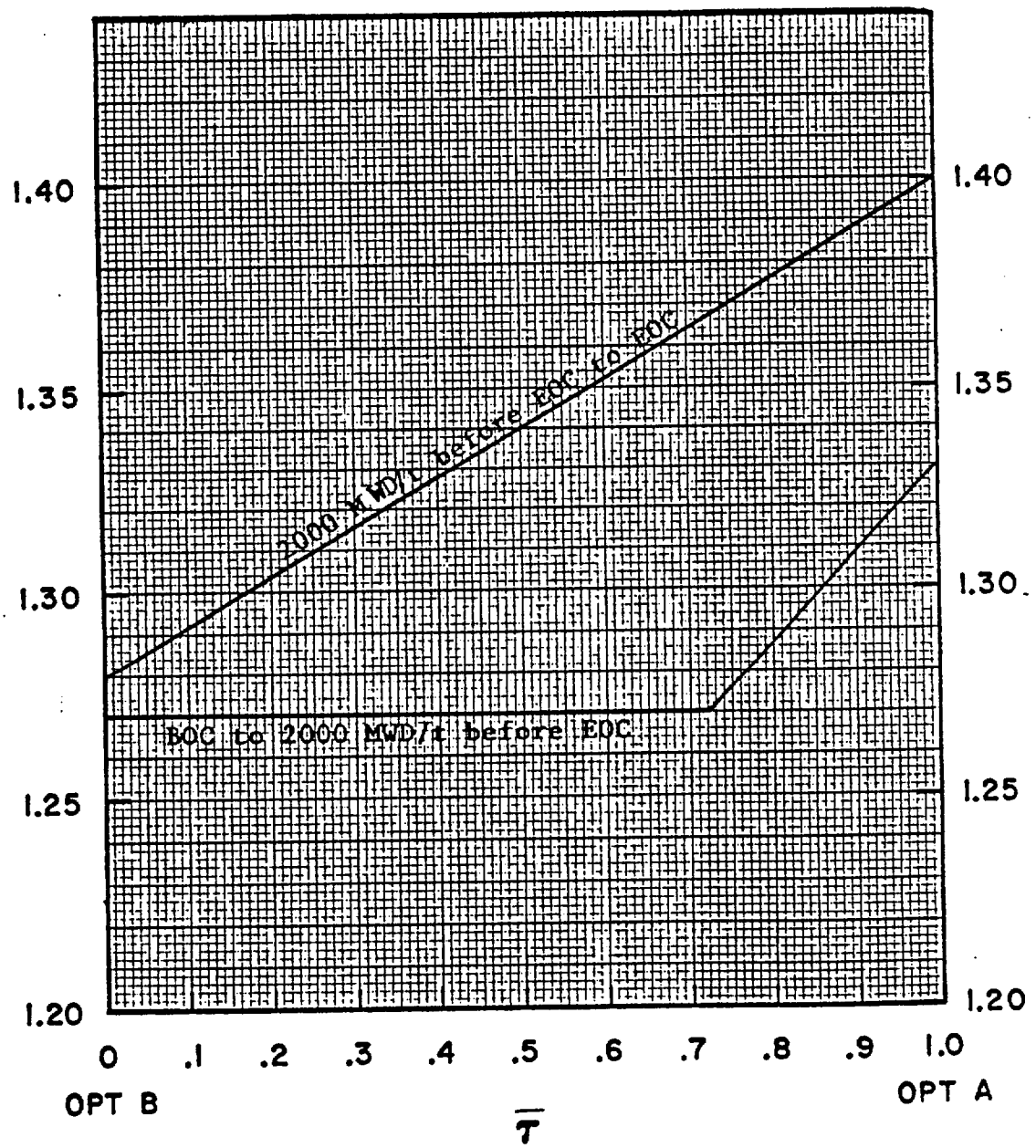


Amendment No. 47, 79, 85, 92, 114

PEACH BOTTOM UNIT 3

FIGURE 3.5.K.2 MCPR OPERATING LIMIT vs τ

FUEL TYPE BP/P8X8R



PEACH BOTTOM UNIT 3

P8X8R FUEL TYPE P8DRB299

BP8X8R FUEL TYPE BP8DRB299

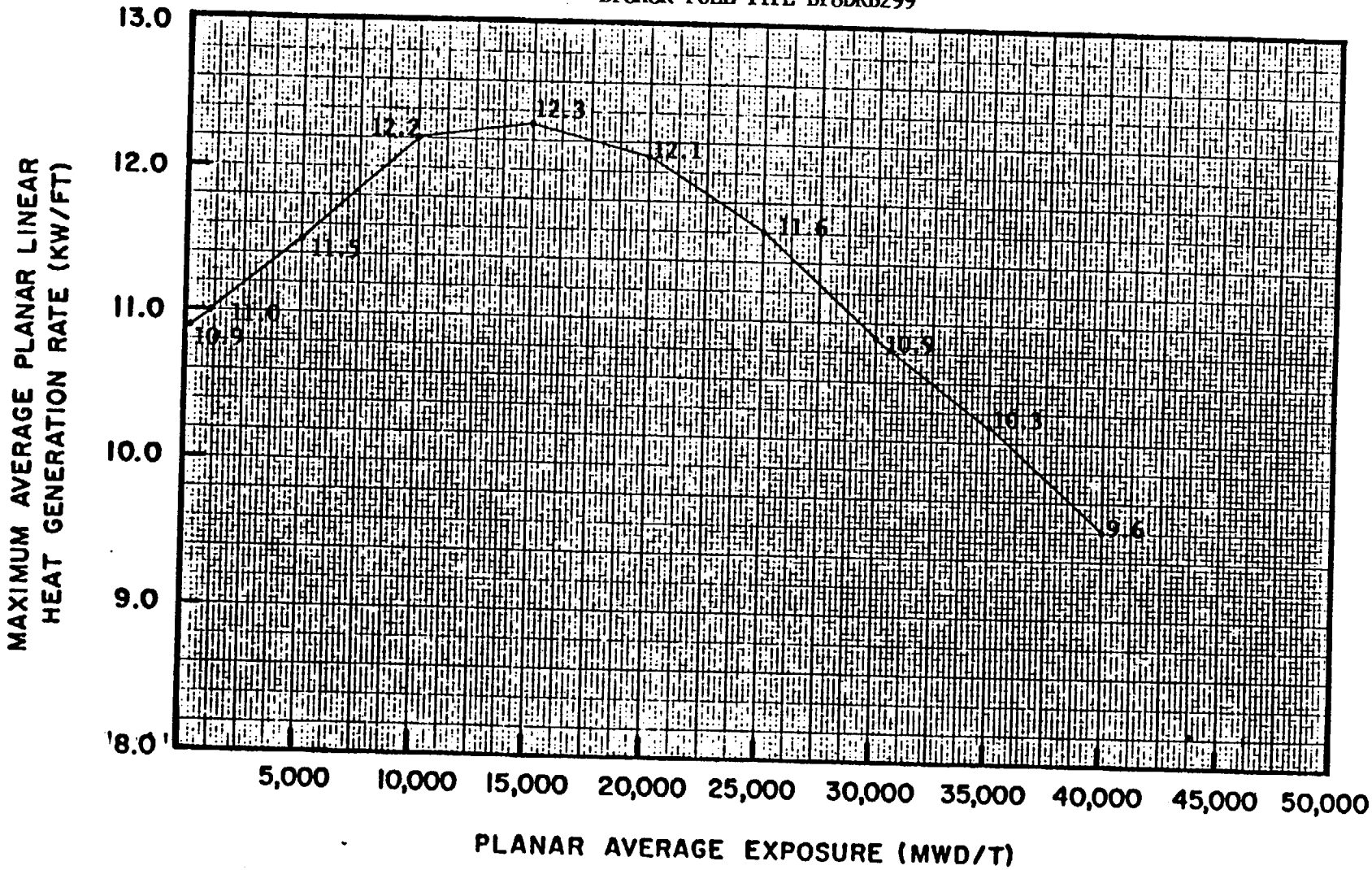


FIGURE 3.5.1.I MAXIMUM AVERAGE PLANAR LINEAR HEAT GENERATION RATE VERSUS PLANAR AVERAGE EXPOSURE

PEACH BOTTOM UNIT 3

BP8X8R FUEL TYPE BP8DRB299H

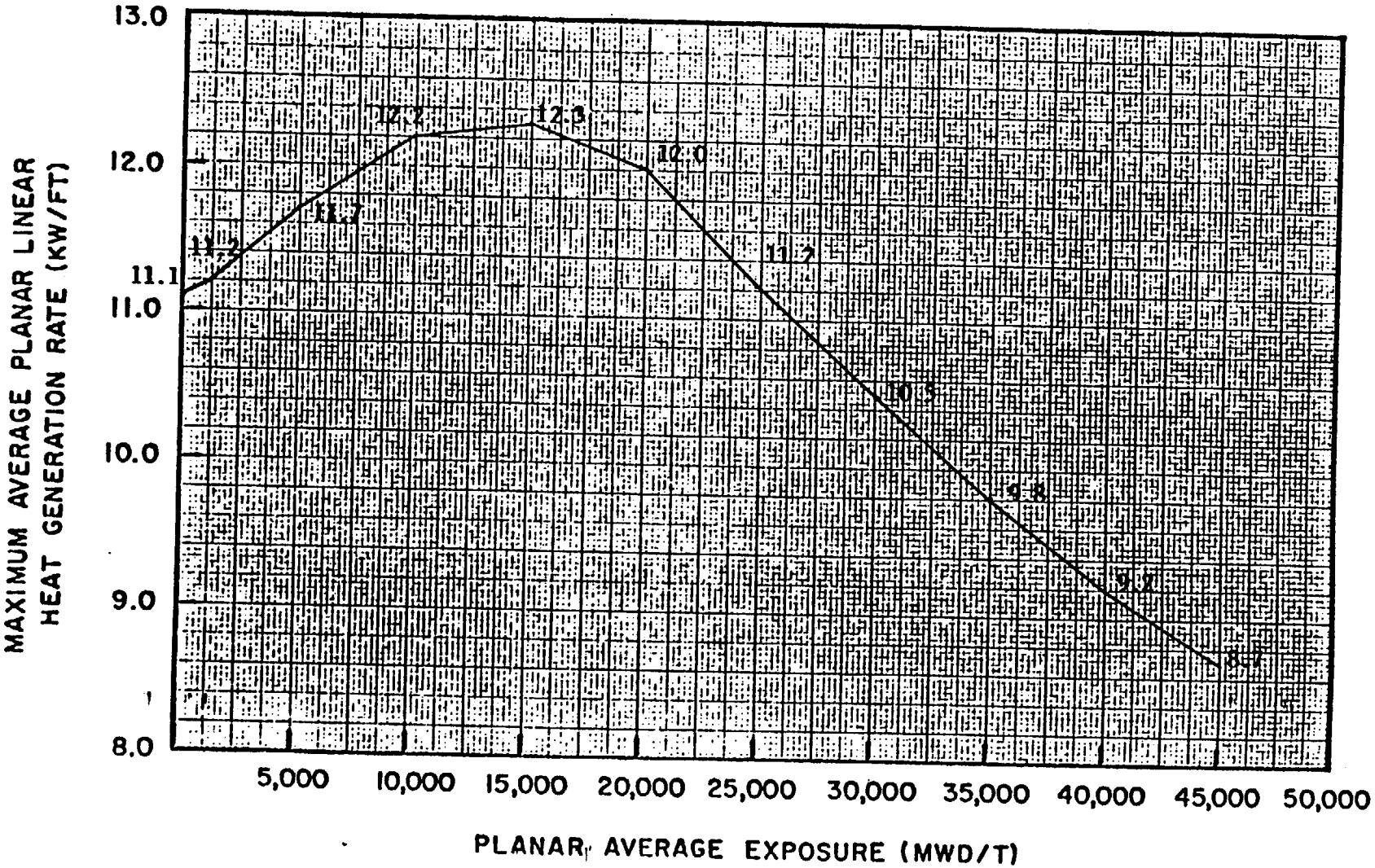


FIGURE 3.5.1.J MAXIMUM AVERAGE PLANAR LINEAR HEAT GENERATION RATE VERSUS PLANAR AVERAGE EXPOSURE

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING

AMENDMENT NO. 114 TO FACILITY OPERATING LICENSE NO. DPR-56

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3

DOCKET NO. 50-278

1.0 INTRODUCTION

By letter dated January 7, 1985, as amended by letter dated April 1, 1985, Philadelphia Electric Company (the licensee) made application to amend the Technical Specifications (TSs) of Peach Bottom Atomic Power Station, Unit 3, to permit reloading and operation of the unit for Cycle 7. In support of this application, the licensee submitted a reload report (Reference 1), an update of the Loss of Coolant Accident (LOCA) analysis (Reference 2) and a supplemental reload report (Reference 4).

1.1 Description of the Proposed Amendment Changes Relating to the Cycle 7 Core

The proposed amendment to the Peach Bottom Unit 3 TSs would:

1) Revise the Minimum Critical Power Ratio (MCPR) limits from Beginning of Cycle (BOC) to 2000 MWD/t before End of Cycle (EOC), and

2) Provide Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) limits for all fuel types inserted for Cycle 7.

Each of these changes to the TSs is discussed in Section 2.5 below.

2.0 EVALUATION

2.1 Fuel Mechanical Design

The fuel to be inserted into the core for Cycle 7 is similar to that customarily used for BWR reloads and is described in Reference 2. This report has been approved by the NRC staff (Reference 3), and we conclude that no further review of the fuel mechanical design is required.

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2.2 Nuclear Design

The nuclear design and analysis of the Cycle 7 reload was performed with methods and techniques which are described in Reference 2 and which are used in all reload analyses performed by General Electric. The results of the analysis are within the range of those customarily found for reload cores and are acceptable. We conclude that the nuclear design and analysis of the Cycle 7 reload is acceptable.

2.3 Thermal-Hydraulic Design

The methods and procedures employed in the thermal-hydraulic design and analysis of the Cycle 7 core are described in Reference 2. The value of 1.07 for the safety limit MCPR, approved in that reference, is used for Cycle 7. The methods and procedures used to obtain the operating limit MCPR were those described in Reference 2 and are acceptable. We conclude that the thermal-hydraulic design and analysis of the Peach Bottom 3 Cycle 7 core is acceptable.

2.4 Transient and Accident Analyses

The transient and accident analyses for Cycle 7 have been performed with the methods in Reference 2. Because the transient and accident analyses have been performed by previously approved methods and the results meet our acceptance criteria, we conclude that they are acceptable.

2.5 Technical Specifications

The proposed changes identify the fuel operating limits for Cycle 7 operation.

2.5.1 MAPLHGR Limits

The MAPLHGR limits in the proposed TS changes are consistent with those in Reference 1 and are acceptable.

2.5.2 MCPR Values

The proposed TS change involves the MCPR values from BOC to 2000 MWD/t before EOC. We have reviewed the proposed change and conclude that it is in agreement with the analyses in Reference 4. We therefore find this change acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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.

Dated: August 23, 1985

The following NRC personnel have contributed to this Safety Evaluation:
M. Chatterton

References:

1. GESTAR II - "General Electric Standard Application for Reactor Fuel", NEDE-24011-P-A-6, April 1983

2. Errata and Addenda Sheet No. 6 to NEDO-24082, LOCA Analysis for Peach Bottom Atomic Power Station Unit 3, November 1984

3. GESTAR II, Appendix C

4. "Supplemental Reload Licensing Submittal for Peach Bottom Atomic Power Station Unit 3, Reload 6" General Electric Document #23A4600, March 1985