DEC 28 1973

Docket No. 50-237

Commonwealth Edison Company
ATTN: Mr. J. S. Abel
Nuclear Licensing Administrator -
Boiling Water Reactors
Post Office Box 767
Chicago, Illinois 60690

Change No. 24
License No. DPR-19

Gentlemen:

Your letter dated December 14, 1973, proposed changes to the Technical Specifications of Facility License No. DPR-19 for the Dresden Unit 2 reactor that would increase the maximum average planar linear heat generation rate (MAPLHGR). These changes in the MAPLHGR are the result of changes in the fuel densification model by the General Electric Company as reported in NEDO-20181, "GEGAP III A Model for Prediction of Pellet-Clad Thermal Conductance in BWR Fuel Rods", dated November 1973 and its supplement NEDC-20181 Supplement 1 (Proprietary) dated November 1973. Modifications to the proposed model were made by the Regulatory staff and transmitted by our letter dated December 5, 1973, to you.

The changes in the fuel densification model provide for an exposure dependent gap conductance and time-dependent fuel densification. The Regulatory staff evaluation of these changes is reported in "Supplement 1 to the Technical Report on Densification of General Electric Reactor Fuels" dated December 14, 1973, and our Safety Evaluation dated December 14, 1973, for the Dresden Unit 2 reactor which were provided to you by our letter of December 14, 1973.

Pursuant to an Order dated December 28, 1973, of the Atomic Safety and Licensing Board in the matter of PETITION FOR DERATING OF CERTAIN

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DEC 28 1973

BOILING WATER REACTORS, the Director of Regulation, in accordance with Section 50.59 of 10 CFR Part 50, has issued Change No. 24 to the Technical Specifications of Facility License No. DPR-19. This change is effective immediately.

Sincerely,

Original signed by
Robert J. Schemel

Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

Enclosure:
Change No. 24 to Technical
Specifications (3 pages)

cc w/enclosure:
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proprietary information:*
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ATTN: Joan Sause
Office of Radiation Programs
Environmental Protection Agency

Mr. Gary Williams
Federal Activities Branch
Environmental Protection Agency

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*And NEDO-20181 and XN-174.

2233.2

OFFICE ➔ X7403	L:ORB #2	L:ORB #2	L:ORB #2	L:RS	OGC	L:OR
SURNAME ➔	RWReid:sjh	RMDiggs RDSilver	DLZiemann	VStello		DJSkovholt
DATE ➔	12/28/73	12/28/73	12/28/73	12/28/73	12/28/73	12/28/73

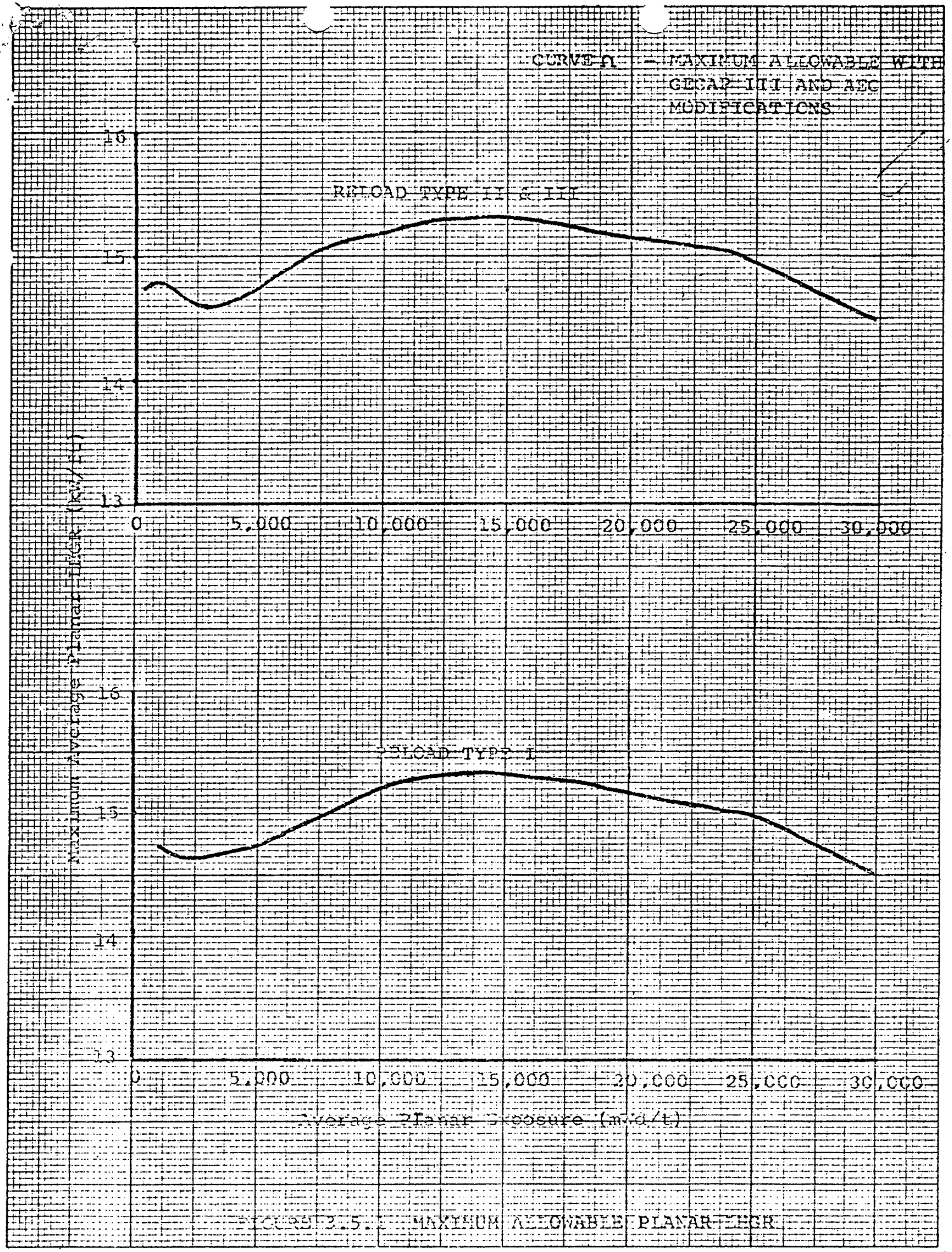

FIGURE 3.2.1 MAXIMUM ALLOWABLE PLANAR HEAT

(Rev. w/Change 24 dated 12/28/73)

3.5.I Average Planar LHGR

This specification assures that the peak cladding temperature following the postulated design basis loss-of-coolant accident will not exceed the 2300°F limit specified in the Interim Acceptance Criteria (IAC) issued in June 1971 considering the postulated effects of fuel pellet densification.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average heat generation rate of all the rods of a fuel assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within an assembly. Since expected local variations in power distribution within a fuel assembly affect the calculated peak clad temperature by less than ±20°F relative to the peak temperature for a typical fuel design, the limit on the average linear heat generation rate is sufficient to assure that calculated temperatures are below the IAC limit.

The maximum average planar LHGR shown in Figure 3.5.1 is the same as that shown on the curve labeled "Ω" (omega) on Figures 3-H and 4-H in the General Electric letter of J. A. Hinds to V. A. Moore, "Plant Evaluations with GEGAP-III," dated December 12, 1973, based on calculations employing the models described in the General Electric reports NEDM-10735 as modified by the General Electric report NEDO-20181.

(Rev. w/Change 24 dated 12/28/73)

3.5.J Local LHGR

This specification assures that the linear heat generation rate in any rod is less than the design linear heat generation even if fuel pellet densification is postulated. The power spike penalty specified is based on the analysis presented in Section 3.2.1 of the GE topical report NEDM-10735 Supplement 6, and assumes a linearly increasing variation in axial gaps between core bottom and top, and assures with a 95% confidence, that no more than one fuel rod exceeds the design linear heat generation rate due to power spiking.

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(Rev. w/Change 24 dated 12/28/73)