CONSUMERS POWER COMPANY
Docket 50-155
Request for Change to the Technical Specifications
License DPR-6

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in the Facility Operating License DPR-6, Docket 50-155, issued to Consumers Power Company on May 1, 1964, for the Big Rock Point Plant be changed as described in Section I below:

I. Changes

Section 5.2.1(b) - Table I

Change the column headings on Table I of Section 5.2.1(b) to read:

"Reloads: F & Modified F	Reload G	Reload G-1U	Reload G-3/G-4/H-1/H-2/H-3"

Section 5.2.1(b) - Table II

Replace Table 2 of Section 5.2.1.(b) with the new Table 2 attached.

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Table 2
MAPLHGR(KW/FT) LIMITS

Planar Average Exposure (MWD/STM)	Reload Modified F	Reload F	Reload G	Reload G-1U	Reload G-3/G-4/H-1	Reload H-2	Reload H-3
0	Same as present Technical Specifications						6.77
200							-
360							-
1,000							7.56
1,630							-
3,810							-
3,900							-
5,000							-
6,440							-
6,620							7.48
10,000							-
12,880							-
13,520							-
13,610							-
15,000							-
19,050							-
20,000							-
20,320							7.56
20,870							-
24,580							-
25,000							-
26,400							7.32
26,760							-
28,210							-
30,000							-
31,210							6.73
32,000							-
33,020							-
33,380							6.69
34,000							-
34,470							-
36,000							-
36,290							-

II. Discussion

The above proposed Technical Specifications changes are requested to implement reactor operating limits for Reload H-3 fuel which are based on the Loss of Coolant Accident (LOCA) Analysis required by 10CFR50.46. The maximum Average Planar Linear Heat Generation Rate (MAPLHGR) Limits for Reload H-3 are based on the LOCA analysis submitted by Consumers Power Company letter dated March 7, 1979 (Exxon Nuclear Company (ENC) Report XN-NF-78-53). The MAPLHGR limits were derived in a manner identical to that described in ENC Report XN-NF-79-21, Revision 1, "Big Rock Point LOCA Analysis Using the Exxon Nuclear Company WREM NJP-BWR ECCS Evaluation Model - MAPLHGR Analysis" which was submitted by Consumers Power Company letter dated February 25, 1980. On the basis of these two submittals the NRC staff previously issued Amendment No 44 to the Big Rock Point Operating License which revised MAPLHGR limits for all fuel supplied by ENC to that point in time. By letter dated December 15, 1981, Consumers Power Company requested a change to the Big Rock Point Technical Specifications, regarding Exxon Reload H-2 fuel MAPLHGR limits. On the basis of this submittal (December 15, 1981) the NRC staff issued Amendment No 53 to the Big Rock Point Operating License which revised MAPLHGR limits for Exxon Reload H-2.

Reload H-3 is identical to Reload H-2 in all respects, except as described below.

Reload H-3 fuel design is show in Figure 1 (attached). The differences between H-3 and H-2 are:

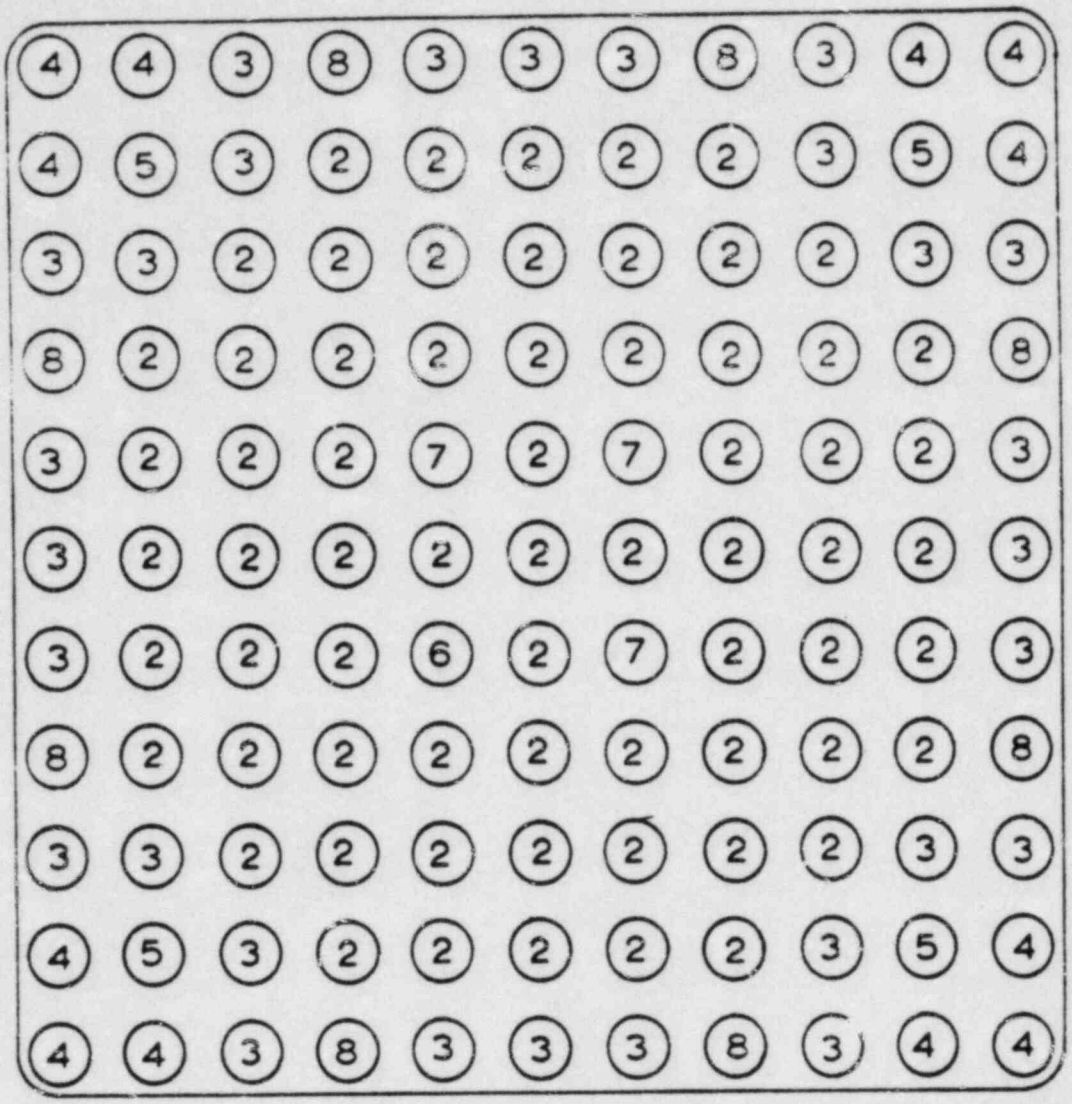
1. In Reload H-3 the gadolinia rods are moved closer to the periphery of the fuel bundles and

2. The gadolinia content of the gadolinia bearing fuel rods is higher (2.0 w/o Gd_2O_3) for H-3 as compared to H-2 (1.5 w/o Gd_2O_3).

These minor differences have no effect on the thermal hydraulic design basis for ENC Fuel. The changes in fuel design have been made to provide an improved shut-down margin at the beginning of core life.

A slight increase in local peaking factors, results in higher peak clad temperatures for the H-3 reload in comparison to the H-2 reload at low burnups. The H-3 MAPLHGRs were reduced at lower exposures to assure peak clad temperatures less than 2200°F. The MAPLHGRs for the H-3 reload were decreased from the previous H-2 reload values at low bundle burnups (below 6.62 GWD/STM). At higher burnups, the MAPLHGR values for the ENC H-3 design are identical to those for the H-2 reload. These effects are illustrated by comparing the last two columns of the proposed Table 2 of the Technical Specification Section 5.2.1(b).

This proposed Technical Specification change has no effect on the December 20, 1982 submittal regarding the utilization of Minimum Critical Power Ratio (MCPR).



ITEM	ROD TYPE	QTY.
2	FUEL ROD (HIGH ENRICH)	65
3	FUEL ROD (MED. ENRICH)	28
4	FUEL ROD (LOW ENRICH)	12
5	NAF (LOW ENRICH)	4
8	TIE ROD (MED. ENRICH)	8
6	SPACER CAPTURE ROD (Inert)	1
7	INERT ROD	3

FIGURE 1

FUEL ROD ARRANGEMENT - BRP RELOAD H-3

III. Conclusion

Based on the foregoing, both the Big Rock Point Plant Review Committee and the Safety and Audit Review Board have reviewed these changes and find them acceptable.

CONSUMERS POWER COMPANY

By R B DeWitt
R B DeWitt, Vice President
Nuclear Operations

Sworn and subscribed to before me this 20th day of April 1983.

Sherry L. Durfey
Sherry L Durfey, Notary Public
Jackson County, Michigan
My commission expires November 5, 1986.

SHERRY LYNN DURFEY
Notary Public, Jackson County, MI
My Commission Expires Nov. 5 19[illegible]