Consumers Power Company

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November 9, 1976

Director of Nuclear Reactor Regulation
Att: Mr Albert Schwencer, Chief
Operating Reactor Branch No 1
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - SPECIAL REPORT
NO 9 - REVISION OF TABLE 6

Based on discussion with members of your staff (on October 20 and 21, 1976), we have revised Table 6 of special report No 9 entitled "Palisades Cycle II Start-Up Report August 27, 1976." The attached Table 6 makes provision for a measurement uncertainty allowance of 10% of the net rod worth. In order to provide this margin, the power dependent insertion limit curve has been revised to allow less rod insertion at power levels below 43% power. A copy of the present power dependent insertion limit curve is attached for your information.

The curve presented as Figure 3-6 of the Technical Specifications was first submitted as Figure 1 of Section 1 of Attachment 1 to our October 12, 1972 request for a power level increase from 60% to 100% of rated power. This curve was more restrictive than the previous curve (Figure 3-15 of the FSAR) and reflected the reduced allowable power peaking required to meet AEC criteria for peak clad temperature for LOCA with "densified" or "collapsed clad" fuel.

After completion of the zero power physics test for Cycle 2, the allowable rod insertion was restricted, at zero power, to approximately 50% of Group 3. This provided about 1% $\Delta\rho$ additional shutdown margin at beginning of life.

The present curve (attached) is designed to provide the margin specified in revised Table 6 (Cycle 2 start-up report) for end of life conditions.

David A. Bixel

David A Bixel
Assistant Nuclear Licensing Administrator

CC: JGKeppler, USNRC

TABLE 6

Palisades Cycle II Shutdown Margin

	BOC		EOC	
	HZP	HFP	HZP	HFP
Doppler Defect	0	1.0	0	1.0
Moderator Temperature Defect	0	0.2	0	0.8
Moderator Void Defect	0	0	0	0.1
PDIL Rod Insertion Worth	1.05	0.07	1.24	0.15
Axial Flux Redistribution	0	0	0	0.5
Total Reactivity Allowances	1.05	1.27	1.24	2.55
Total Measured Full-Length Rod Worth	8.53	8.53	8.68*	8.68*
Stuck Rod Worth	3.22	3.22	3.52	3.52
Net Available Worth	5.31	5.31	5.16	5.16
Measurement Uncertainty Allowance	0.53	0.53	0.52	0.52
Shutdown Margin	3.73	3.51	3.40	2.09
Required Margin	3.40	2.00	3.40	2.00

$$*\text{EOC Rod Worth} = \text{EOC (Calculated)} \times \frac{\text{BOC (Measured)}}{\text{BOC (Calculated)}}$$

Revised October 28, 1976

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PALISADES PLANT

CONTROL ROD INSERTION LIMITS

ALLOWED POWER LEVEL (% of 2200 MWt) VS CONTROL ROD INSERTION (%)

BY ROD GROUP FOR OPERATION BELOW 1900 PSIA

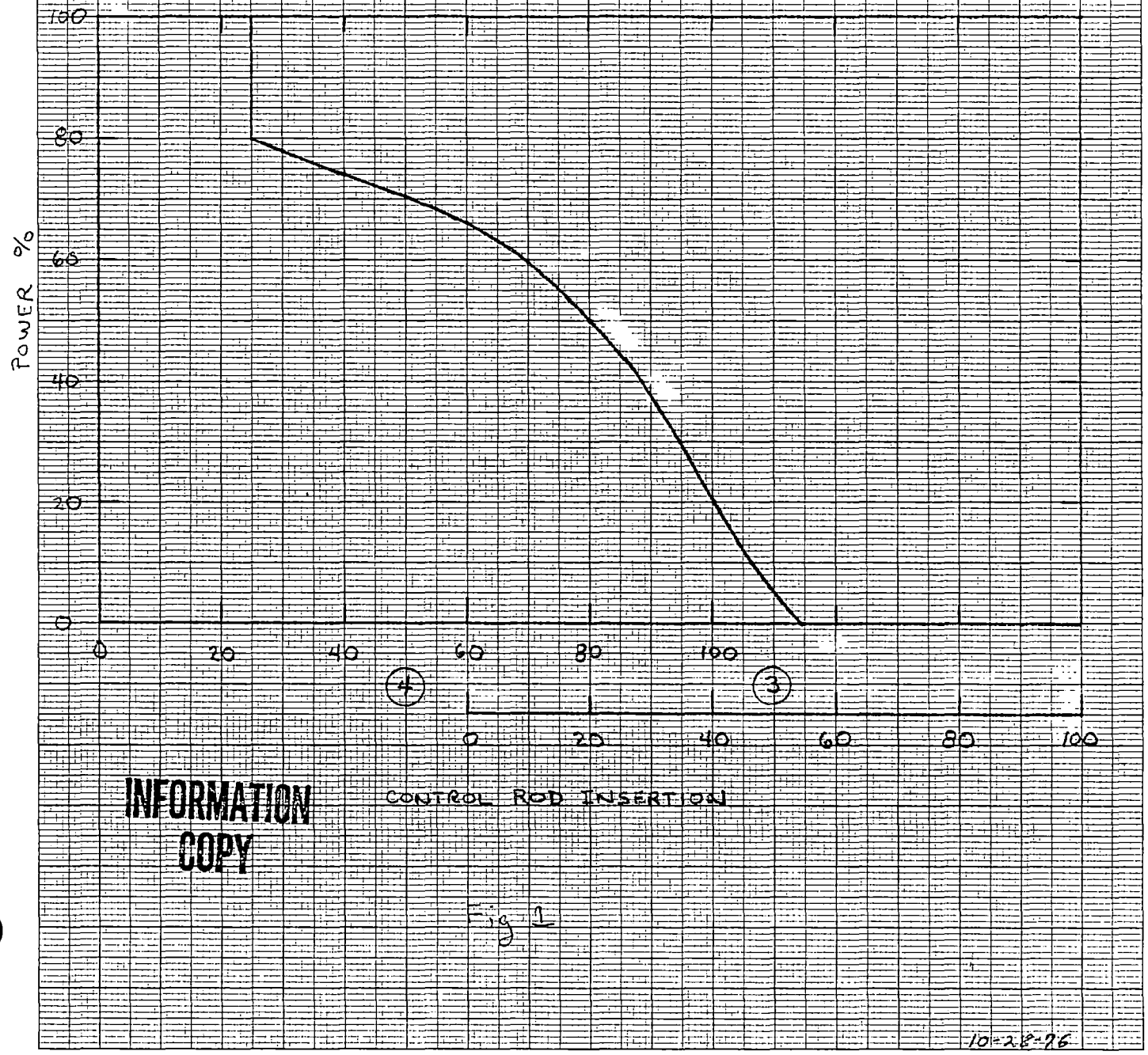

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Fig 1

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