Consumers Power Company

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June 6, 1979

Director, Nuclear Reactor Regulation
Att Mr Dennis L Ziemann, Chief
Operating Reactors Branch No 2
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - CYCLE 4 START-UP PHYSICS TEST

On May 23, 1979 Consumers Power Company representatives talked with the NRC staff about specific aspects of the Palisades Plant Cycle 4 operation. Although not required by regulations or the Plant Technical Specifications, Consumers Power agreed to submit an outline of the planned Cycle 4 start-up physics tests.

Attached is the proposed Cycle 4 Start-Up Test Program for Palisades. The tests are the same as were performed last cycle with the following exceptions:

1. The net rod worth (N-1) measurement will not be done. Industry practice has been to do this test only once for a particular reactor, so repetition of this test in the future is not contemplated.

2. The dropped rod worth test will not be performed. The overriding concern in the rod drop accident analysis is the core power distribution, which is not directly associated with rod worth, so that this test provides no useful information that is not already covered by other tests.

3. The central control rod calibration has been added and the moderator and power coefficient tests will be performed by trading with this rod, assuming that the special test exception technical specification change (to be submitted on June 7, 1979) is granted.

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PALISADES CYCLE 4
START-UP TESTS

I. LOW POWER

Measured Parameter	Acceptance Criterion
ARO HZP critical boron concentration.	± 10% of predicted value.
Regulation rod bank worths, no overlap.	± 15% of predicted value or within 0.15% $\Delta\rho$ predicted value, whichever is greater.
Regulation rod bank worths in overlap sequence.	None.
Central rod integral worth calibration.	None.
Symmetric rod worths.	Each individual rod within ± 10% of the symmetric group average.
Moderator temperature coefficient - ARO and regulating banks in.	$\pm 5 \times 10^{-5}$ $\Delta\rho$/°F from the predicted value.
Reciprocal soluble boron worth.	Not larger than 125 ppm/% $\Delta\rho$.

II. POWER ESCALATION - (50% and 90% of Rated Power)

Measured Parameter	Acceptance Criterion
Moderator temperature coefficient.	$\pm 5 \times 10^{-5}$ $\Delta\rho$/°F from the predicted value.
Power coefficient.	Average for all tests within $\pm 3 \times 10^{-5}$ $\Delta\rho$/% power of the predicted average.
Power distribution.	Technical Specifications are met.