



Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

April 5, 1984
Fort St. Vrain
Unit #1
P-84103

Robert Burnett, Director
Office of Nuclear Reactor Regulation
Operating Reactors Safeguards Branch
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: CYCLE 4 BASE REACTIVITY
CURVE AND ROD WITHDRAWAL
SEQUENCE

Gentlemen:

In accordance with the requirements of LCO 4.1.8 of the Fort St. Vrain Technical Specifications, I am transmitting the Base Reactivity Curve and Rod Withdrawal Sequence for Refueling Cycle 4. This data is provided for your information.

These changes will become effective with revisions to the System Operating Procedures for refueling cycle 4, currently in progress. Initial startup is presently planned to consist of training starts for licensed operators, and is planned to occur during mid-April, 1984. If you have questions regarding this transmittal, please contact me at (303)785-2223.

Very truly yours,

Don W. Warembourg
Don W. Warembourg
Manager, Nuclear Production

Attachments

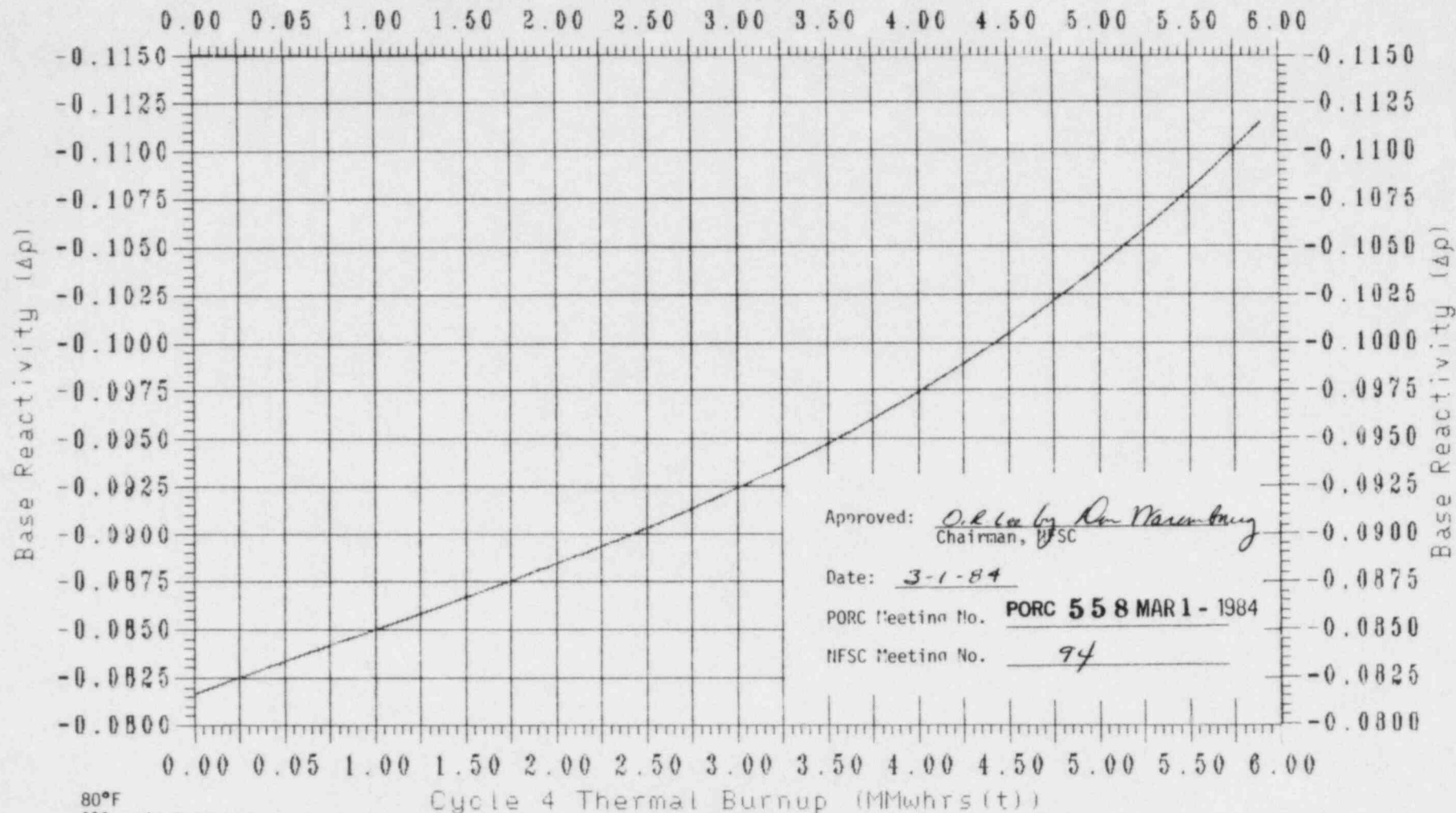
DWW/dkh

8404120112 840405
PDR ADLCK 05000267
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ORIG TO
REG IV

A001
111

FIGURE 18
BASE REACTIVITY CURVE CYCLE 4
 Cycle 4 Thermal Burnup (MMwhrs(t))



Approved: *D. L. G. by Don Macomber*
 Chairman, PFSC

Date: 3-1-84

PORC Meeting No. PORC 558 MAR 1 - 1984

PFSC Meeting No. 94

80°F
 All rods inserted
 No Xe-135
 No Sm-149
 All Pa-233 decayed to U-233



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

TABLE 1

Control Rod Withdrawal Sequence for Cycle 4

WITHDRAWAL SEQUENCE	GROUP NUMBER	O = ODD E = EVEN	ROD PAIRS COMPRISING GROUP			GROUP WORTH WHEN PULLED IN SEQUENCE	CUMULATIVE GROUP WORTH
			A	B	C		
1	2A*	E	2	4	6	0.0485	0.0485
2	4F*	O	25	31	37	0.0139	0.0624
3	4D	O	23	29	35	0.0046	0.0670
4	1 (0-115)	-		1		0.0064	0.0734
5	4B	E	21	27	33	0.0109	0.0843
6	2B	O	3	5	7	0.0368	0.1211
7	4E	O	24	30	36	0.0087	0.1298
8	4A	E	20	26	32	0.0080	0.1378
9	4C	E	22	28	34	0.0126	0.1504
10	3C	O	10	14	18	0.0200	0.1704
11	3A	E	8	12	16	0.0133	0.1837
12	3B	E	9	13	17	0.0196	0.2033
13	3D	O	11	15	19	0.0154	0.2187
14	1 (115-190)	-		1		0.0022	0.2209

* Run-Back groups