Northern States Power Company
Prairie Island Nuclear Generating Plant
1717 Wakonade Dr. East
Welch, Minnesota 55089

April 8, 1996

NRC Bulletin 96-01

U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Response to NRC Bulletin 96-01: Control Rod Insertion Problems

This letter provides our response to Bulletin 96-01, Control Rod Insertion Problems. The bulletin requests two responses within 30 days of the date of the bulletin:

(1) Within 30 days of the date of this bulletin, a report certifying that control rods are determined to be operable: actions taken for Requested Actions (1) and (2) above; and the plans for implementing Requested Action (3) and (4).

(2) Within 30 days of the date of this bulletin, a core map of rodded fuel assemblies indicating fuel type (materials, grids, spacers, guide tube inner diameter) and current and projected end of cycle burnup of each rodded assembly for the current cycl; when available, provide the same information for the next cycle.

The response to (1) is included in Attachment 2 and the core maps for the current cycles for both units as requested by (2) are included in Attachment (3). In addition, we commit to provide the requested core maps for the next cycle for each unit when available. New NRC commitments contained in Attachment 2 are those statements which are italicized.

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Please contact Jack Leveille (612-388-1121, Ext. 4662) if you have any questions related to this letter.

Michael D Wadley
Plant Manager
Prairie Island Nuclear Generating Plant

c: Regional Administrator - Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
J E Silberg

Attachments:
1. Affidavit
2. Response to Bulletin 96-01, Control Rod Insertion Problems
3. Core Maps of Rodded Fuel Assemblies

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT DOCKET NO. 50-282
50-306

BULLETIN 96-01: CONTROL ROD INSERTION PROBLEMS

Northern States Power Company, a Minnesota corporation, with this letter is submitting information requested by NRC Bulletin 96-01.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

BY Michael D Wadley
Michael D Wadley
Plant Manager
Prairie Island Nuclear Generating Plant

On this 8th day of April 1996 before me a notary public in and for said County, personally appeared Michael D Wadley, Plant Manager, Prairie Island Nuclear Generating Plant; and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.

Marcia K LaCore

MARCIA K. LaCORE
NOTARY PUBLIC-MINNESOTA
HENNEPIN COUNTY
My Commission Expires Jan. 31, 2000

MARCIA K. LaCORE
NOTARY PUBLIC-MINNESOTA
HENNEPIN COUNTY
My Commission Expires Jan. 31, 2000

RESPONSE TO BULLETIN 96-01, CONTROL ROD INSERTION PROBLEMS

Requested Action (1):

(1) Promptly inform operators of recent events (reactor trips and testing) in which control rods did not fully insert and subsequently provide necessary training, including simulator drills, utilizing the required procedures for responding to an event in which the control rods do not fully insert upon reactor trip (e.g., boration of a pre-specified amount).

Response to Requested Action (1):

Northern States Power, Prairie Island is meeting the intent of Requested Action (1) from NRC Bulletin 96-01as follows:

Northern States Power, Prairie Island operators and management were promptly notified of the Wolf Creek event on 2/12/96 using information from the NRC press release concerning the event The procedural requirements to borate should two or more rods fail to fully insert was emphasized. Bulletin 96-01 was issued 3/8/96. Follow-up communication with the additional information contained in this bulletin was transmitted to the operators on 3/15/96.

Simulator training of Operations crews began on 3/12/96. The simulator scenario is designed to require the operators to enter the procedure having the requirements to borate should two or more rods fail to fully insert. Critiques will be held after the simulator training. The crews will receive the simulator training during their regular training cycle. This training will be complete by 5/24/96.

Requested Action (2):

(2) Promptly determine the continued operability of control rods based on current information. As new information becomes available from plant rod drop tests and trips, licensees should consider this new information together with data already available from Wolf Creek, South Texas, North Anna, and other industry experience, and make a prompt determination of control rod operability.

Response to Requested Action (2):

Northern States Power, Prairie Island is meeting the intent of Requested Action (2) from NRC Bulletin 96-01as follows.

On March 15, 1996 the Prairie Island Operations Committee determined that control rods for Units 1 and 2 were operable. The operabilitiy determination was based on the following information:

1) Prairie Island standard practice is to trip rods in and verify that they trip in during a shutdown for refueling. A review of rod trip information from 1990 to 3/15/96, from both planned and unplanned trips from both units combined, shows that a total of 52 rod-trips into fuel elements having a burnup of greater than 40,000 MWD/MTU have occurred. Two of these rod-trips were in fuel elements having greater than 50,000 MWD/MTU. According to control board instrumentation, all of these rod-trips were normal. The control rod insertion problems observed in the industry to date have only occurred in rodded fuel assemblies having burnups of greater that 42,000 MWD/MTU.

2) Results of drag tests on RCCAs after latching following refuelings from 1990 to 3/15/96 have met their acceptance criteria.

3) Rod drop timing traces at beginning of core life show normal rod recoil and acceptable rod drop times for all rods for the current cycles for both units.

4) The periodic surveillance procedures SP1047 and SP2047, "Control Rod ExerciseTest", have been performed satisfactorily.

5) Westinghouse has performed safety assessments on a large number of plants that show that the amount of uninserted worth associated with observed control rod insertion problems to date is small compared to the design basis assumption of the most reactive rod stuck out.

On April 8, 1996 the Prairie Island Operations Committee again determined that the control rods for Units 1 and 2 were operable. This operabilitiy determination included all of the items considered for the operability determination of March 15, 1996 as well as the following additional items:

1) Information obtained from the Prairie Island Unit 2 trip of 3/19/96 was assessed on 3/19/96. This asessment showed that rods inserted normally.

2) Rod drop timing tests were performed after the 3/19/96 Unit 2 reactor trip. This testing showed that all rods had acceptable rod drop times and normal recoil. Only one rod was in a fuel element having an exposure of greater than 40,000 MDW/MTU. This rod drop timing information will be submitted to the NRC in accordance with reporting requirements of Bulletin 96-01in a separate report to be submitted by 4/18/96.

3) At the end of the current Unit 1 core cycle (18), Unit 1 will have five rodded fuel elements with burnups greater than 50,000 MWD/MTU and no other rodded elements with burnup greater than 40,000 MWD/MT. At the end of the current Unit 2 core cycle (17), Unit 2 will have thirteen rodded fuel

elements with burnups between 47,000 and 51,000 WD/MTU and no other rodded elements with burnup greater than 40,000 MWD/MTU.

Shutdown margin analysis for Unit 2 end of life burnups show that even with 11 of the rods in elements having greater than 40,000 MWD/MT burnup stuck at 20 steps withdrawn and 2 rods stuck at 30 steps withdrawn, that the amount of uninserted worth associated with the postulated control rod insertion problem is small compared to the design basis assumption of the most reactive rod stuck out.

Northern States Power, Prairie Island will continue to monitor the industry for additional information related to this issue through the Westinghouse Owners Group and other generic communications. Our determinations that control rods are operable will be assessed as such applicable additional information is received.

Requested Actions (3) and (4):

(3) Measure and evaluate at each outage of sufficient duration during calendar year 1996 (end of cycle, maintenance, etc.), the control rod drop times and rod recoil data for all control rods. If appropriate plant conditions exist where the vessel head is removed, measure and evaluate drag forces for all rodded fuel assemblies.

a. Rods failing to meet the rod drop time in the technical specifications shall be deemed inoperable.

b. Rods failing to bottom or exhibiting high drag forces shall require prompt corrective action in accordance with Appendix B to Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50).

(4) For each reactor trip during calendar year 1996, verify that all control rods have promptly fully inserted (bottomed) and obtain other available information to assess the operability and any performance trend of the rods. In the event that all rods do not fully insert promptly, conduct tests to measure and evaluate rod drop times and rod recoil.

Response to Requested Actions (3) and (4):

Northern States Power, Prairie Island plans to meet the intent of Requested Actions (3) and (4) from NRC Bulletin 96-01. This will be accomplished by following the actions described in Requested Actions (3) and (4) until such time as Westinghouse and the Westinghouse Owners Group have identified the appropriate data required to support a root cause determination. Northern States Power, Prairie Island will provide an update of our Bulletin 96-01 response if our plans for implementing Requested Actions (3) and

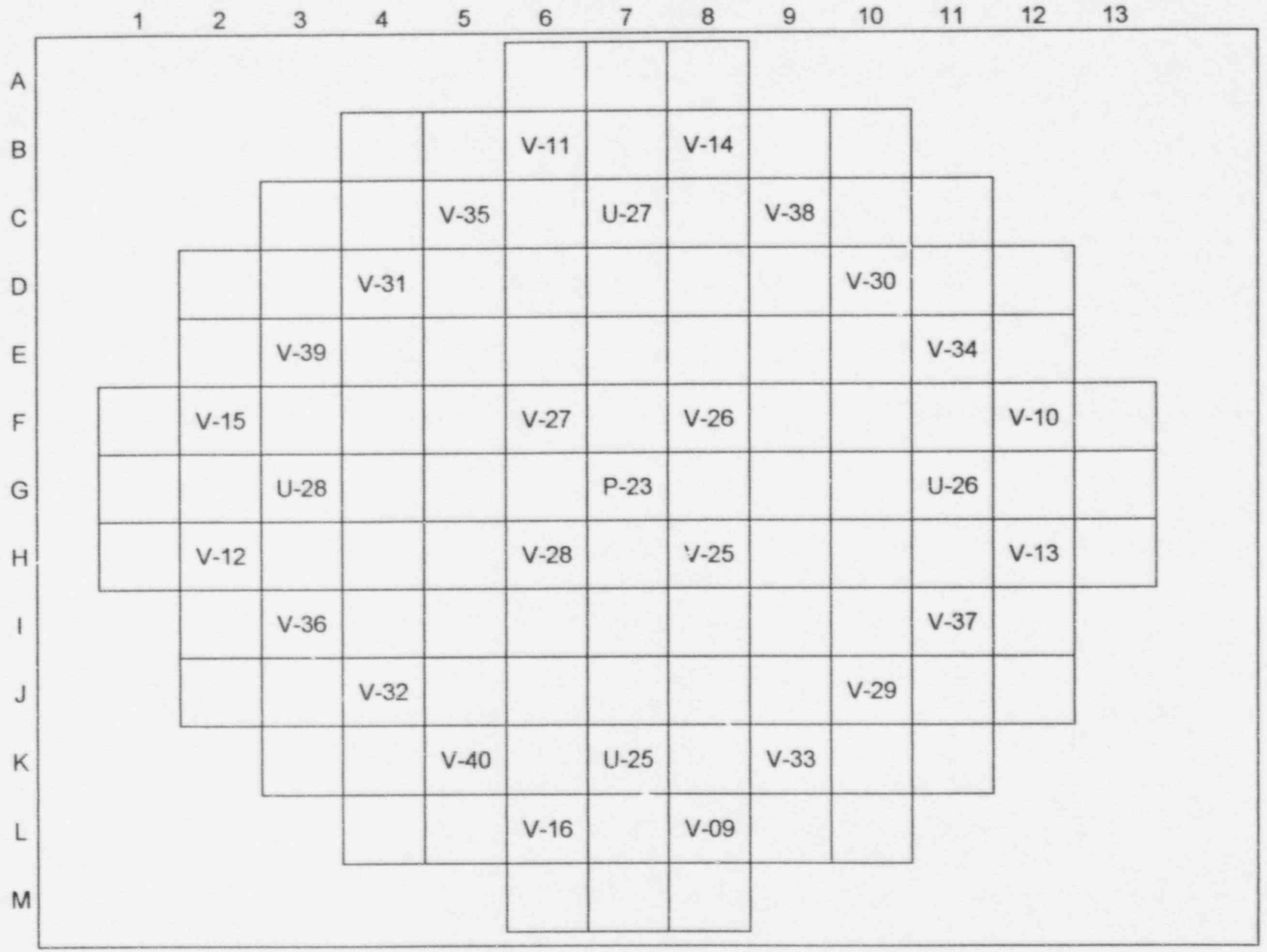
(4) are modified to support the collection of appropriate data for the root cause determination. An outage of sufficient duration is an outage that allows time to properly set up and test the rods by established plant procedures without restraining a plant restart.

Core Maps of Rodded Fuel Assemblies

Prairie Island Nuclear Generating Plant

April 8, 1996

Prairie Island Unit One Cycle Eighteen



Assemblies at Rodded Core Locations

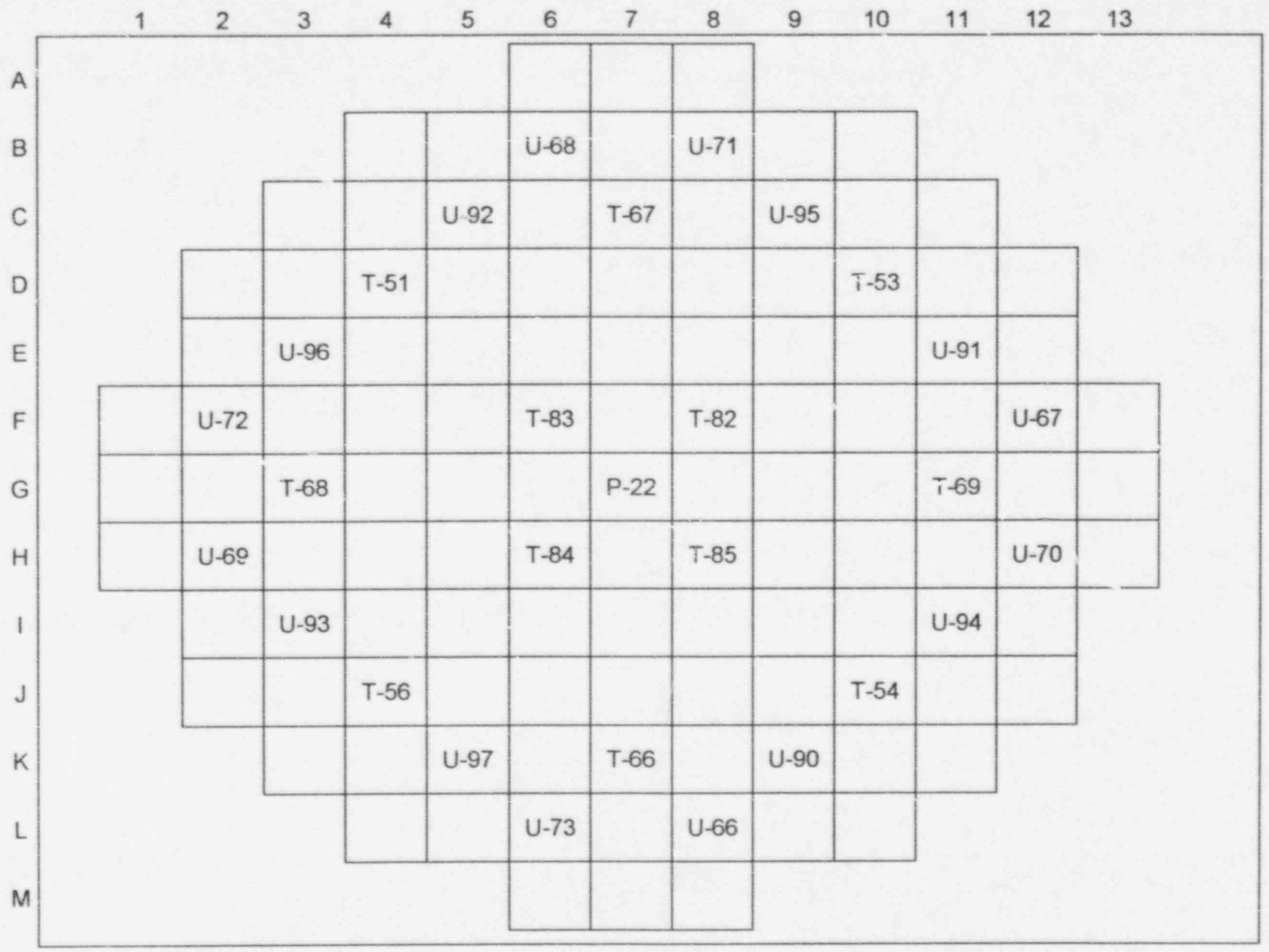
Unit One Cycle Eighteen

Fuel Assembly	Fuel Type	Instrument Tube Material	Number of Guide Tubes per Assembly	Guide Tube Material	Guide Tube Inner Diameter, Upper Region (Inches)	Number of Grids per Assembly	Grid Material, End Two Grids	Grid Material, Middle 5 Grids	Average Initial Enrichment (w/o ^{235}U)	Fuel Pellet Material	Number of Gad Pins per Assembly	Gad Pellet Material	Initial Gadolinia Enrichment (w/o Gd_2O_3)	Clad Material
P-23	W OFA	Zr-4	16	Zr-4	0.490	7	Inconel	Zr-4	3.49	UO_2	8	Gd_2O_3-UO_2	4.0	Zr-4
U-25	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
U-26	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
U-27	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
U-28	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
V-09	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-10	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-11	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-12	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-13	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-14	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-15	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-16	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.91	UO_2	4	Gd_2O_3-UO_2	8.0	ZIRLO
V-25	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.83	UO_2	12	Gd_2O_3-UO_2	8.0	ZIRLO
V-26	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.83	UO_2	12	Gd_2O_3-UO_2	8.0	ZIRLO
V-27	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.83	UO_2	12	Gd_2O_3-UO_2	8.0	ZIRLO
V-28	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.83	UO_2	12	Gd_2O_3-UO_2	8.0	ZIRLO
V-29	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-30	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-31	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-32	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-33	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-34	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-35	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-36	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-37	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-38	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-39	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO
V-40	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.79	UO_2	16	Gd_2O_3-UO_2	8.0	ZIRLO

Fuel Assembly Data

Fuel Assembly	Core Location	Control Rod	Control Rod Bank Group	Burnup At BOC Timing Test (MWD/MTU)	Projected EOC Exposure (MWD/MTU)
P-23	G07	R-119	C2	36215	52660
U-25	K07	R-105	D1	26757	50260
U-26	G11	R-106	D1	26724	50260
U-27	C07	R-112	D1	25836	50260
U-28	G03	R-126	D1	25969	50260
V-09	L08	R-104	A2	0	25240
V-10	F12	R-110	A2	0	25240
V-11	B06	R-101	A2	0	25240
V-12	H02	R-102	A2	0	25240
V-13	H12	R-124	A1	0	25240
V-14	B08	R-111	A1	0	25240
V-15	F02	R-108	A1	0	25240
V-16	L06	R-115	A1	0	25240
V-25	H08	R-113	B1	0	30560
V-26	F08	R-103	B1	0	30560
V-27	F06	R-114	B1	0	30560
V-28	H06	R-107	B1	0	30560
V-29	J10	R-109	C2	0	28630
V-30	D10	R-125	C1	0	28630
V-31	D04	R-117	C2	0	28630
V-32	J04	R-122	C1	0	28630
V-33	K09	R-128	S.B1	0	28630
V-34	E11	R-129	S.B1	0	28630
V-35	C05	R-123	S.B1	0	28630
V-36	I03	R-127	S.B1	0	28630
V-37	I11	R-121	S.A1	0	28630
V-38	C09	R-120	S.A2	0	28630
V-39	E03	R-116	S.A1	0	28630
V-40	K05	R-118	S.A2	0	28630

Prairie Island Unit Two Cycle Seventeen



Assemblies at Rodded Core Locations

Fuel Assembly	Fuel Type	Instrument Tube Material	Number of Guide Tubes per Assembly	Guide Tube Material	Guide Tube Inner Diameter, Upper Region (Inches)	Number of Grids per Assembly	Grid Material, End Two Grids	Grid Material, Middle 5 Grids	Average Initial Enrichment (w/o ^{235}U)	Fuel Pellet Material	Number of Gad Pins per Assembly	Gad Pellet Material	Initial Gadolinia Enrichment (w/o Gd_2O_3)	Clad Material
P-22	W OFA	Zr-4	16	Zr-4	0.490	7	Inconel	Zr-4	3.49	UO_2	8	Gd_2O_3-UO_2	4.0	Zr-4
T-51	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.88	UO_2	4	Gd_2O_3-UO_2	6.0	ZIRLO
T-53	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.88	UO_2	4	Gd_2O_3-UO_2	6.0	ZIRLO
T-54	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.88	UO_2	4	Gd_2O_3-UO_2	6.0	ZIRLO
T-56	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.88	UO_2	4	Gd_2O_3-UO_2	6.0	ZIRLO
T-66	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.84	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
T-67	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.84	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
T-68	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.84	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
T-69	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.84	UO_2	8	Gd_2O_3-UO_2	6.0	ZIRLO
T-82	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.80	UO_2	12	Gd_2O_3-UO_2	6.0	ZIRLO
T-83	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.80	UO_2	12	Gd_2O_3-UO_2	6.0	ZIRLO
T-84	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.80	UO_2	12	Gd_2O_3-UO_2	6.0	ZIRLO
T-85	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.80	UO_2	12	Gd_2O_3-UO_2	6.0	ZIRLO
U-66	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-67	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-68	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-69	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-70	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-71	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-72	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-73	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.87	UO_2	8	Gd_2O_3-UO_2	8.0	ZIRLO
U-90	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-91	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-92	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-93	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-94	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-95	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-96	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO
U-97	W VANTAGE+	ZIRLO	16	ZIRLO	0.492	7	Inconel	Zr-4	4.76	UO_2	20	Gd_2O_3-UO_2	8.0	ZIRLO

Unit Two Cycle Seventeen

Fuel Assembly	Core Location	Control Rod	Control Rod Bank Group	Burnup At BOC Timing Test (MWD/MTU)	Burnup on 2/29/95 (MWD/MTU)	Projected EOC Exposure (MWD/MTU)
P-22	G07	R-148	C2	35775	41776	50490
T-51	D04	R-132	C2	23749	34301	47340
T-53	D10	R-147	C1	24097	34762	47340
T-54	J10	R-138	C2	24222	34899	47340
T-56	J04	R-141	C1	24020	34788	47340
T-66	K07	R-158	D1	24381	35656	49020
T-67	C07	R-152	D1	24453	35677	49020
T-68	G03	R-151	D1	24387	35642	49020
T-69	G11	R-150	D1	25120	36395	49020
T-82	F08	R-145	B1	27669	37392	50100
T-83	F06	R-157	B1	27895	37828	50100
T-84	H06	R-134	B1	27960	37763	50100
T-85	H08	R-142	B1	27611	37372	50100
U-66	L08	R-131	A2	0	11243	25720
U-67	F12	R-154	A2	0	11501	25720
U-68	B06	R-136	A2	0	11091	25720
U-69	H02	R-139	A2	0	11013	25720
U-70	H12	R-143	A1	0	11443	25720
U-71	B08	R-135	A1	0	10943	25720
U-72	F02	R-156	A1	0	11084	25720
U-73	L06	R-153	A1	0	11292	25720
U-90	K09	R-144	S.B1	0	11829	28070
U-91	E11	R-137	S.B1	0	11924	28070
U-92	C05	R-140	S.B1	0	11788	28070
U-93	I03	R-133	S.B1	0	11820	28070
U-94	I11	R-155	S.A1	0	11991	28070
U-95	C09	R-146	S.A2	0	11876	28070
U-96	E03	R-149	S.A1	0	11655	28070
U-97	K05	R-159	S.A2	0	11828	28070

Fuel Burnup Data