



Log # TXX-96490
File # 10119
Ref. # NRCB 96-01

October 28, 1996

C. Lance Terry
Group Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
SUPPLEMENTAL RESPONSE TO NRC BULLETIN NO. 96-01
CONTROL ROD INSERTION PROBLEMS

- REF: 1) TU Electric letter logged TXX-96096 from C. L. Terry to the NRC dated April 8, 1996.
- 2) TU Electric letter logged TXX-96126 from C. L. Terry to the NRC dated April 30, 1996.

Gentlemen:

TU Electric responded to NRC Bulletin 96-01 via References 1 and 2. Requested Action (3) from the bulletin required that TU Electric 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, and if appropriate plant conditions exist where the vessel head is removed, measure and evaluate drag forces for all rodded fuel assemblies.

Requested Action (4) from the bulletin required that for each reactor trip during calendar year 1996, TU Electric verify that all control rods promptly fully inserted (bottomed) and obtain other available information to assess the operability and any performance trend of the rods.

TU Electric obtained rod drop times and rod recoil data for Unit 2, Cycle 3 following the September 18, 1996, reactor trip on Unit 2 and the results are included in Attachment 1. The results were compared to those obtained at the beginning of Cycle 3 on Unit 2 and no observable trends were identified.

9611050107 961028
PDR ADOCK 05000445
G PDR

050055

JE571

Following the Unit 2 reactor trip on September 18, 1996, all control rods promptly fully inserted (bottomed), and other indications demonstrated continued control rod operability. During the rod drop time measurements, each Rod Cluster Control Assembly (RCCA) that was tested exhibited a minimum of two recoils. Rod drop times were not obtained for RCCAs in shutdown bank 'B' due to problems with the step counters. Performing rod drop times for shutdown bank 'B' following repair of the step counters would have restrained reactor restart.

Sincerely,

C. L. Terry

C. L. Terry

By: *Roger D. Walker*

R. D. Walker
Regulatory Affairs Manager

GLM/grp
Attachment

c - Mr. J. J. Callan, Region IV
Mr. J. I. Tapia, Region IV
Resident Inspectors, (CPSES)
Mr. T. J. Polich, NRR

Attachment 1 to
TXX-96490

Comanche Peak - Unit 2, Cycle 03

Rod Bank	Core Loc	Assm ID	Fuel Type	Beginning of Cycle Rod Drop		19-Sep-96		Delta (sec)
				Burnup (MWD/MTU)	Time (sec)	Burnup (MWD/MTU)	Time (sec)	
CBA	H6	DD81	Westinghouse "Improved" Zirc-4	23184	1.45	28958	1.48	0.03
CBA	K8	DD78	Westinghouse "Improved" Zirc-4	23209	1.44	28783	1.45	0.01
CBA	F8	DD68	Westinghouse "Improved" Zirc-4	22974	1.47	28745	1.48	0.01
CBA	H10	DD71	Westinghouse "Improved" Zirc-4	23238	1.44	28924	1.46	0.02
CBB	K2	DD02	Westinghouse "Improved" Zirc-4	21931	1.45	26868	1.44	-0.01
CBB	F2	DD34	Westinghouse "Improved" Zirc-4	22363	1.45	27197	1.46	0.01
CBB	P6	DD42	Westinghouse "Improved" Zirc-4	21828	1.46	26654	1.46	0.00
CBB	B6	DD46	Westinghouse "Improved" Zirc-4	22305	1.44	27254	1.43	-0.01
CBB	P10	DD16	Westinghouse "Improved" Zirc-4	21897	1.44	26671	1.43	-0.01
CBB	B10	DD33	Westinghouse "Improved" Zirc-4	22264	1.45	27239	1.46	0.01
CBB	K14	DD26	Westinghouse "Improved" Zirc-4	22209	1.45	27034	1.46	0.01
CBB	F14	DD11	Westinghouse "Improved" Zirc-4	22068	1.45	27101	1.46	0.01
CBC	H2	DD52	Westinghouse "Improved" Zirc-4	20895	1.47	26251	1.46	-0.01
CBC	K6	DD86	Westinghouse "Improved" Zirc-4	21034	1.45	26966	1.45	0.00
CBC	F6	DD67	Westinghouse "Improved" Zirc-4	20667	1.46	26574	1.45	-0.01
CBC	P8	DD87	Westinghouse "Improved" Zirc-4	21281	1.44	26431	1.46	0.02
CBC	B8	DD85	Westinghouse "Improved" Zirc-4	20375	1.44	25724	1.46	0.02
CBC	K10	DD72	Westinghouse "Improved" Zirc-4	20990	1.45	26794	1.45	0.00
CBC	F10	DD77	Westinghouse "Improved" Zirc-4	21020	1.44	27011	1.45	0.01
CBC	H14	DD50	Westinghouse "Improved" Zirc-4	20456	1.47	25695	1.48	0.01
CBD	M4	DD38	Westinghouse "Improved" Zirc-4	22814	1.45	27992	1.44	-0.01
CBD	D4	DD37	Westinghouse "Improved" Zirc-4	22690	1.45	27916	1.46	0.01
CBD	H8	CC56	Westinghouse "Standard" Zirc-4	21219	1.49	26272	1.49	0.00
CBD	M12	DD41	Westinghouse "Improved" Zirc-4	22816	1.46	28028	1.46	0.00
CBD	D12	DD28	Westinghouse "Improved" Zirc-4	22578	1.44	27949	1.45	0.01
SBA	M2	DD55	Westinghouse "Improved" Zirc-4	22633	1.49	25975	1.5	0.01
SBA	D2	DD64	Westinghouse "Improved" Zirc-4	22484	1.48	25645	1.5	0.02
SBA	P4	DD75	Westinghouse "Improved" Zirc-4	22686	1.45	25929	1.47	0.02
SBA	B4	DD49	Westinghouse "Improved" Zirc-4	22694	1.46	25989	1.47	0.01
SBA	P12	DD57	Westinghouse "Improved" Zirc-4	22713	1.43	25906	1.47	0.04
SBA	B12	DD79	Westinghouse "Improved" Zirc-4	22635	1.45	25990	1.47	0.02
SBA	M14	DD69	Westinghouse "Improved" Zirc-4	22900	1.48	26128	1.5	0.02
SBA	D14	DD62	Westinghouse "Improved" Zirc-4	22951	1.45	26256	1.48	0.03
SBB	J3	DD05	Westinghouse "Improved" Zirc-4	18235	1.44	23803	NA	NA
SBB	G3	DD06	Westinghouse "Improved" Zirc-4	18645	1.44	24199	NA	NA
SBB	N7	DD17	Westinghouse "Improved" Zirc-4	17748	1.46	23155	NA	NA
SBB	C7	DD03	Westinghouse "Improved" Zirc-4	17765	1.47	23442	NA	NA
SBB	N9	DD12	Westinghouse "Improved" Zirc-4	18076	1.47	23441	NA	NA
SBB	C9	DD24	Westinghouse "Improved" Zirc-4	18065	1.45	23709	NA	NA
SBB	J13	DD30	Westinghouse "Improved" Zirc-4	17855	1.46	23350	NA	NA
SBB	G13	DD27	Westinghouse "Improved" Zirc-4	17710	1.46	23294	NA	NA
SBC	E3	DD70	Westinghouse "Improved" Zirc-4	13933	1.45	19819	1.47	0.02
SBC	N5	DD63	Westinghouse "Improved" Zirc-4	14308	1.45	20222	1.46	0.01
SBC	C11	DD54	Westinghouse "Improved" Zirc-4	13740	1.49	19966	1.52	0.03
SBC	L13	DD61	Westinghouse "Improved" Zirc-4	14355	1.42	20343	1.42	0.00
SBD	L3	DD74	Westinghouse "Improved" Zirc-4	14072	1.45	20102	1.47	0.02
SBD	C5	DD51	Westinghouse "Improved" Zirc-4	14229	1.46	20318	1.47	0.01
SBD	N11	DD60	Westinghouse "Improved" Zirc-4	14312	1.44	20281	1.45	0.01
SBD	E13	DD80	Westinghouse "Improved" Zirc-4	14134	1.45	20283	1.48	0.03
SBE	H4	DD35	Westinghouse "Improved" Zirc-4	21928	1.45	27344	1.46	0.01
SBE	M8	DD43	Westinghouse "Improved" Zirc-4	21751	1.46	26903	1.47	0.01
SBE	D8	DD48	Westinghouse "Improved" Zirc-4	21891	1.43	27310	1.44	0.01
SBE	H12	DD36	Westinghouse "Improved" Zirc-4	21940	1.45	27218	1.45	0.00

Average Rod Drop Time: 1.454 1.463
Standard Deviation: 0.015 0.020