



Log # TXX-96372  
File # 10119  
Ref. # NRCB 96-01

May 24, 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 rodged fuel assemblies.

TU Electric obtained rod drop times, rod recoil data, and drag force data at the beginning of cycle for Unit 2, Cycle 3 during the second refueling outage for Unit 2. The results have been included in Attachment 1.

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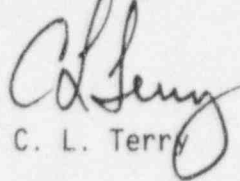
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During the rod drop time testing, each Rod Control Cluster Assembly (RCCA) exhibited a minimum of two recoils and no significant outliers were noted in the drag force data.

Sincerely,



C. L. Terry

GLM/glm  
Attachment

cc: Mr. L. J. Callan, Region IV  
Ms. L. Smith, Region IV  
Resident Inspectors, CPSES

Cornanche Peak - Unit 2, Cycle 03

Obtained 5/5/96

Rod Bank	Core Loc	Assm ID	Fuel Type	Beginning of Cycle Rod Drop Results	
				Burnup (MWD/MTU)	Time (sec)
CBA	H6	DD81	Westinghouse "Improved" Zirc-4	23184	1.45
CBA	K8	DD78	Westinghouse "Improved" Zirc-4	23209	1.44
CBA	F8	DD68	Westinghouse "Improved" Zirc-4	22974	1.47
CBA	H10	DD71	Westinghouse "Improved" Zirc-4	23238	1.44
CBB	K2	DD02	Westinghouse "Improved" Zirc-4	21931	1.45
CBB	F2	DD34	Westinghouse "Improved" Zirc-4	22363	1.45
CBB	P6	DD42	Westinghouse "Improved" Zirc-4	21828	1.46
CBB	B6	DD46	Westinghouse "Improved" Zirc-4	22305	1.44
CBB	P10	DD16	Westinghouse "Improved" Zirc-4	21897	1.44
CBB	B10	DD33	Westinghouse "Improved" Zirc-4	22264	1.45
CBB	K14	DD26	Westinghouse "Improved" Zirc-4	22209	1.45
CBB	F14	DD11	Westinghouse "Improved" Zirc-4	22068	1.45
CBC	H2	DD52	Westinghouse "Improved" Zirc-4	20895	1.47
CBC	K6	DD86	Westinghouse "Improved" Zirc-4	21034	1.45
CBC	F6	DD67	Westinghouse "Improved" Zirc-4	20667	1.46
CBC	P8	DD87	Westinghouse "Improved" Zirc-4	21281	1.44
CBC	B8	DD85	Westinghouse "Improved" Zirc-4	20375	1.44
CBC	K10	DD72	Westinghouse "Improved" Zirc-4	20990	1.45
CBC	F10	DD77	Westinghouse "Improved" Zirc-4	21020	1.44
CBC	H14	DD50	Westinghouse "Improved" Zirc-4	20456	1.47
CBD	M4	DD38	Westinghouse "Improved" Zirc-4	22814	1.45
CBD	D4	DD37	Westinghouse "Improved" Zirc-4	22690	1.45
CBD	H8	CC56	Westinghouse "Standard" Zirc-4	21219	1.49
CBD	M12	DD41	Westinghouse "Improved" Zirc-4	22816	1.46
CBD	D12	DD28	Westinghouse "Improved" Zirc-4	22578	1.44
SBA	M2	DD55	Westinghouse "Improved" Zirc-4	22633	1.49
SBA	D2	DD64	Westinghouse "Improved" Zirc-4	22484	1.48
SBA	P4	DD75	Westinghouse "Improved" Zirc-4	22686	1.45
SBA	B4	DD49	Westinghouse "Improved" Zirc-4	22694	1.46
SBA	P12	DD57	Westinghouse "Improved" Zirc-4	22713	1.43
SBA	B12	DD79	Westinghouse "Improved" Zirc-4	22635	1.45
SBA	M14	DD69	Westinghouse "Improved" Zirc-4	22900	1.48
SBA	D14	DD62	Westinghouse "Improved" Zirc-4	22951	1.45
SBB	J3	DD05	Westinghouse "Improved" Zirc-4	18235	1.44
SBB	G3	DD06	Westinghouse "Improved" Zirc-4	18645	1.44
SBB	N7	DD17	Westinghouse "Improved" Zirc-4	17748	1.46
SBB	C7	DD03	Westinghouse "Improved" Zirc-4	17765	1.47
SBB	N9	DD12	Westinghouse "Improved" Zirc-4	18076	1.47
SBB	C9	DD24	Westinghouse "Improved" Zirc-4	18065	1.45
SBB	J13	DD30	Westinghouse "Improved" Zirc-4	17855	1.46
SBB	G13	DD27	Westinghouse "Improved" Zirc-4	17710	1.46
SBC	E3	DD70	Westinghouse "Improved" Zirc-4	13933	1.45
SBC	N5	DD63	Westinghouse "Improved" Zirc-4	14308	1.45
SBC	C11	DD54	Westinghouse "Improved" Zirc-4	13740	1.49
SBC	L13	DD61	Westinghouse "Improved" Zirc-4	14355	1.42
SBD	L3	DD74	Westinghouse "Improved" Zirc-4	14072	1.45
SBD	C5	DD51	Westinghouse "Improved" Zirc-4	14229	1.46
SBD	N11	DD60	Westinghouse "Improved" Zirc-4	14312	1.44
SBD	E13	DD80	Westinghouse "Improved" Zirc-4	14134	1.45
SBE	H4	DD35	Westinghouse "Improved" Zirc-4	21928	1.45
SBE	M8	DD43	Westinghouse "Improved" Zirc-4	21751	1.46
SBE	D8	DD48	Westinghouse "Improved" Zirc-4	21891	1.43
SBE	H12	DD36	Westinghouse "Improved" Zirc-4	21940	1.45

Average Rod Drop Time: 1.45  
Standard Deviation: 0.015

Comanche Peak - Unit 2, Cycle 03  
2RF02 Control Rod Drive Shaft LATCH

Rod Bank	Core Location	Assembly ID	Fuel Type	RCCA Latch Drag Force (lbs)	
				<u>Dashpot Region</u>	<u>Out of Dashpot Region</u>
CBA	H6	DD81	Westinghouse "Improved" Zirc-4	15	15
CBA	K8	DD78	Westinghouse "Improved" Zirc-4	15	15
CBA	F8	DD68	Westinghouse "Improved" Zirc-4	35	15
CBA	H10	DD71	Westinghouse "Improved" Zirc-4	15	10
CBB	K2	DD02	Westinghouse "Improved" Zirc-4	15	10
CBB	F2	DD34	Westinghouse "Improved" Zirc-4	15	15
CBB	P6	DD42	Westinghouse "Improved" Zirc-4	30	20
CBB	B6	DD46	Westinghouse "Improved" Zirc-4	20	10
CBB	P10	DD16	Westinghouse "Improved" Zirc-4	30	20
CBB	B10	DD33	Westinghouse "Improved" Zirc-4	20	15
CBB	K14	DD26	Westinghouse "Improved" Zirc-4	15	15
CBB	F14	DD11	Westinghouse "Improved" Zirc-4	10	15
CBC	H2	DD52	Westinghouse "Improved" Zirc-4	10	10
CBC	K6	DD86	Westinghouse "Improved" Zirc-4	15	15
CBC	F6	DD67	Westinghouse "Improved" Zirc-4	20	20
CBC	P8	DD87	Westinghouse "Improved" Zirc-4	20	15
CBC	B8	DD35	Westinghouse "Improved" Zirc-4	15	10
CBC	K10	DD72	Westinghouse "Improved" Zirc-4	15	15
CBC	F10	DD77	Westinghouse "Improved" Zirc-4	10	10
CBC	H14	DD50	Westinghouse "Improved" Zirc-4	15	15
CBD	M4	DD38	Westinghouse "Improved" Zirc-4	15	10
CBD	D4	DD37	Westinghouse "Improved" Zirc-4	10	15
CBD	H8	CC56	Westinghouse "Standard" Zirc-4	10	10
CBD	M12	DD41	Westinghouse "Improved" Zirc-4	15	15
CBD	D12	DD28	Westinghouse "Improved" Zirc-4	15	15
SBA	M2	DD55	Westinghouse "Improved" Zirc-4	10	10
SBA	D2	DD64	Westinghouse "Improved" Zirc-4	10	10
SBA	P4	DD75	Westinghouse "Improved" Zirc-4	10	10
SBA	B4	DD49	Westinghouse "Improved" Zirc-4	10	10
SBA	P12	DD57	Westinghouse "Improved" Zirc-4	20	15
SBA	B12	DD79	Westinghouse "Improved" Zirc-4	15	20
SBA	M14	DD69	Westinghouse "Improved" Zirc-4	25	25
SBA	D14	DD62	Westinghouse "Improved" Zirc-4	10	15
SBB	J3	DD05	Westinghouse "Improved" Zirc-4	15	15
SBB	G3	DD06	Westinghouse "Improved" Zirc-4	10	15
SBB	N7	DD17	Westinghouse "Improved" Zirc-4	15	15
SBB	C7	DD03	Westinghouse "Improved" Zirc-4	10	15
SBB	N9	DD12	Westinghouse "Improved" Zirc-4	15	10
SBB	C9	DD24	Westinghouse "Improved" Zirc-4	10	10
SBB	J13	DD30	Westinghouse "Improved" Zirc-4	15	15
SBB	G13	DD27	Westinghouse "Improved" Zirc-4	10	10
SBC	E3	DD70	Westinghouse "Improved" Zirc-4	15	15
SBC	N5	DD63	Westinghouse "Improved" Zirc-4	15	10
SBC	C11	DD54	Westinghouse "Improved" Zirc-4	10	10
SBC	L13	DD61	Westinghouse "Improved" Zirc-4	15	15
SBD	L3	DD74	Westinghouse "Improved" Zirc-4	15	15
SBD	C5	DD51	Westinghouse "Improved" Zirc-4	15	20
SBD	N11	DD60	Westinghouse "Improved" Zirc-4	15	15
SBD	E13	DD80	Westinghouse "Improved" Zirc-4	10	15
SBE	H4	DD35	Westinghouse "Improved" Zirc-4	15	10
SBE	M8	DD43	Westinghouse "Improved" Zirc-4	15	15
SBE	D8	DD48	Westinghouse "Improved" Zirc-4	10	10
SBE	H12	DD36	Westinghouse "Improved" Zirc-4	15	15