



KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

May 11, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

KMLNRC 84-077

Re: Docket No. STN 50-482

- Ref: 1) KMLNRC 82-153, dated 1/15/82 from GLKoester, KG&E, to HRDenton, NRC
2) KMLNRC 82-172, dated 3/10/82 from GLKoester, KG&E, to HRDenton, NRC
3) KMLNRC 82-214, dated 6/29/82 from GLKoester, KG&E, to HRDenton, NRC
4) SLNRC 84-0019, dated 2/2/84 from NAPetrick, SNUPPS, to HRDenton, NRC

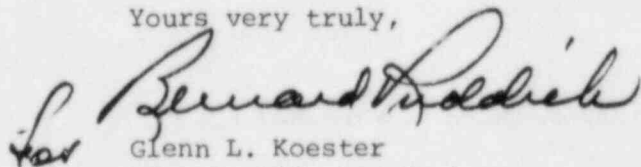
Subj: Wolf Creek Human Factors Modifications

Dear Mr. Denton:

Reference 1) transmitted the independent preliminary design assessment performed by the Essex Corporation of the Wolf Creek site-specific control room panels RL013 and RL014. References 2) and 3) transmitted KG&E's responses to Essex Corporation's findings.

Revised responses to findings 14 and 19 in References 2) and 3) are provided in Attachment 1. The Wolf Creek plant specific implementation schedule for resolutions to these and the other site-specific findings, provided in References 2) and 3), as well as the Supplementary Survey and Auxiliary Shutdown Panel findings, provided in Reference 4) is provided in Attachment 2. This information is hereby incorporated into the Wolf Creek Generating Station, Unit No. 1, Operating License Application.

Yours very truly,


Glenn L. Koester

Vice President - Nuclear

GLK:bb
Attach
xc: PO'Connor (2)
HBundy

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PDR ADOCK 05000482
A PDR

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OATH OF AFFIRMATION

STATE OF KANSAS)
) SS:
COUNTY OF SEDGWICK)

I, Bernard Ruddick, of lawful age, being duly sworn upon oath, do depose, state and affirm that I am Vice President - Engineering of Kansas Gas and Electric Company, Wichita, Kansas, that I have signed the foregoing letter of transmittal for Glenn L. Koester, Vice President - Nuclear of Kansas Gas and Electric Company, know the contents thereof, and that all statements contained therein are true.

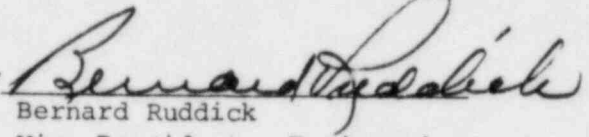
KANSAS GAS AND ELECTRIC COMPANY

ATTEST:



Asst. Secretary

By



Bernard Ruddick

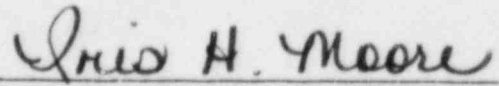
Vice President - Engineering

STATE OF KANSAS)
) SS:
COUNTY OF SEDGWICK)

BE IT REMEMBERED that on this 11th day of May, 1984, before me, Iris H. Moore a Notary, personally appeared Bernard Ruddick, Vice President - Engineering of Kansas Gas and Electric Company, Wichita, Kansas, who is personally known to me and who executed the foregoing instrument, and he duly acknowledged the execution of the same for and on behalf of and as the act and deed of said Corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the date and year above written.




_____, Notary

My Commission expires on January 2, 1986

ATTACHMENT 1

WOLF CREEK HUMAN ENGINEERING FINDINGS (HEF)

HEF	Priority	Subject	Disposition																
14	4	Mimic Lines: ELECTRICAL DISTRIBUTION	The color for the mimics on RL013 and RL014 will be identical to Standard Plant for electrical distribution. The coding scheme is as follows: 345 KV -- yellow 69 KV -- red 13.8 KV -- black 4.16 KV -- orange 480 V -- grey																
19	4	Labels: SIMPLE INDICATORS *AIR BREAK SWITCH 345-163 *345 KV WEST BUS *345 KV EAST BUS *AIR BREAK SWITCH 345-45 *AIR BREAK SWITCH 345-50 *4.16 KV BUS SL31 IEL-SL025A *NO 2 XFMR 69-13.8 KV *NO 1 XFMR 69-13.8 KV	The following indicators and symbols have their associated labels located directly to the side, as opposed to above. <table><tr><th><u>Indicators</u></th><th><u>Symbols</u></th></tr><tr><td>345 KV West Bus</td><td>No. 5 XFMR 69-13.8 KV</td></tr><tr><td>345 KV East Bus</td><td>No. 4 XFMR 69-13.8 KV</td></tr><tr><td>Air Break Switch 345-163</td><td>No. 6 XFMR 345-69 KV</td></tr><tr><td>Air Break Switch 345-45</td><td></td></tr><tr><td>Air Break Switch 345-55</td><td></td></tr><tr><td>4.16 KV Bus SL31 IEL-SL025A</td><td></td></tr><tr><td>4.16 KV Bus SL41</td><td></td></tr></table> Due to the mimic configuration, the labels are closely associated with their indicating lights and mimic symbols. Therefore, the labels for the above items will remain in their present locations.	<u>Indicators</u>	<u>Symbols</u>	345 KV West Bus	No. 5 XFMR 69-13.8 KV	345 KV East Bus	No. 4 XFMR 69-13.8 KV	Air Break Switch 345-163	No. 6 XFMR 345-69 KV	Air Break Switch 345-45		Air Break Switch 345-55		4.16 KV Bus SL31 IEL-SL025A		4.16 KV Bus SL41	
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Air Break Switch 345-45																			
Air Break Switch 345-55																			
4.16 KV Bus SL31 IEL-SL025A																			
4.16 KV Bus SL41																			

Wolf Creek Status of Findings From Initial Essex and NRC Review of SNUPPS Control Room

NRC FINDING AND PRIORITY	A C C T I O N	A C C T I O N	I M P L E M E N T	NRC FINDING AND PRIORITY	A C C T I O N	A C C T I O N	I M P L E M E N T	NRC FINDING AND PRIORITY	A C C T I O N	A C C T I O N	I M P L E M E N T	NRC FINDING AND PRIORITY	A C C T I O N	A C C T I O N	I M P L E M E N T
1.1 (1)	A1	N4	NA	5.6 (31)	A1	N4	NA	6.23 (1)	A1	F29		7.6 (3)	A2	N2	NA
1.2 (3)	A2	N2	NA	5.7 (3)	O	N3	NA	6.24 (2)	A1	F25		7.7 (3)	R1	N6	NA
1.3 (1)	A1	F10		5.8 (2)	A1	U2	RF	6.25 (3)	A2	F26		7.8 (3)	O	N3	NA
1.4 (1)	A4	F9	X	5.9 (2)	A1	N1	NA	6.26 (31)	A1	F25		7.9 (3)	R1	N3	NA
1.5 (1)	A1	F8	X	5.10 (1)	A1	F14	X	6.27 (31)	A1	F25		7.10 (31)	A1	N4	NA
1.6 (1)	A1	F9	X	5.11 (3)	O	N3	NA	6.28 (1)	A1	F8	X	7.11 (1)	R1	N	NA
1.7 (3)	O	N3	NA	5.12 (2)	A4	U2		6.29 (31)	A4	F25		7.12 (2)	A1	U2	
1.8 (1)	R1	N6	NA	5.13 (2)	A1	F16	X	6.30 (31)	A1	F25		8.1 (1)	A1	U1	
1.9 (3)	O	N3	NA	5.14 (31)	A1	F17		6.31 (2)	A4	202		8.2 (3)	A2	F25	
1.10 (3)	O	N3	NA	5.15 (3)	O	N3	NA	6.32 (31)	A1	F25		8.3 (31)	A1	N4	NA
3.1 (1)	A1	U1		5.16 (3)	O	N3	NA	6.33 (31)	R3	F3	X	8.4 (31)	A1	F25	
3.2 (3)	A2	F3	X	5.17 (1)	A4	U2	RF	6.34 (31)	A4	F27		8.5 (31)	A1	F28	
3.3 (3)	A5	F3	X	5.18 (1)	A1	U1		6.35 (1)	A4	F25		8.6 (31)	A1	F25	
3.4 (1)	A1	F3	UE	5.19 (2)	A1	F9	X	6.36 (1)	A1	F25		8.7 (3)	A4	F8	X
3.5 (1)	A1	F22		5.20 (3)	A2	N2	NA	6.37 (31)	A1	F27		8.8 (3)	O	N3	NA
3.6 (3)	A2	F3	X	5.21 (2)	A1	F4		6.38 (3)	O	F25		8.9 (3)	A2	F25	
3.7 (2)	A1	N4	NA	5.22 (31)	R1	U2	X	6.39 (31)	A1	F27		8.10 (3)	O	N6	NA
3.8 (3)	O	U1		5.23 (1)	A1	F15	X	6.40 (31)	A1	F25		8.11 (3)	A2	F25	
3.9 (3)	A5	F22	X	5.24 (2)	A1	N4	NA	6.41 (31)	A1	U2		8.12 (1)	R1	F7	X
3.10 (1)	A5	F3	X	5.25 (2)	A1	U2		6.42 (31)	A1	F9		8.13 (2)	A1	F8	X
3.11 (31)	A5	F3	X	5.26 (31)	A1	F25		6.43 (31)	A1	U1		8.14 (2)	A4	F8	X
3.12 (1)	A5	F3	X	5.27 (1)	A1	N9	NA	6.44 (31)	A1	F25		8.15 (2)	A1	F8	UE
3.13 (1)	A1	F3	X	5.28 (1)	A4	U1	X	6.45 (31)	A4	F27	X	8.16 (2)	R1	F8	X
3.14 (1)	A1	F9	X	6.1 (1)	A1	N4	UE	6.46 (31)	A1	F27	X	8.17 (1)	A1	N4	UE
4.1 (3)	A2	N2	NA	6.2 (1)	A1	F9	X	6.47 (31)	R1	F27		8.18 (3)	O	N3	NA
4.2 (1)	A1	F8		6.3 (2)	A1	N4	NA	6.48 (3)	R1	N3	NA	8.19 (3)	R1	F23	
4.3 (2)	A1	F26		6.4 (31)	A1	F27		6.49 (31)	R1	F28		9.1 (2)	A4	F25	
4.4 (1)	A1	N4	NA	6.5 (31)	A1	F25		6.50 (2)	R1	F28		9.2 (3)	O	N3	NA
4.5 (2)	A1	N6	NA	6.6 (1)	A1	F25		6.51 (31)	A1	F28		9.3 (1)	A4	F25	
4.6 (2)	A1	F9	X	6.7 (1)	A1	F25		6.52 (1)	A1	F28		9.4 (2)	A1	N4	NA
4.7 (1)	A1	F24	X	6.8 (1)	A4	F25		6.54 (31)	R1	N6	NA	9.5 (3)	A4	F8	X
4.8 (2)	A1	F9	X	6.9 (1)	A4	F25		6.55 (31)	A1	F28		9.6 (2)	A1	F8	X
4.9 (2)	A1	F25		6.10 (1)	A4	F25		6.56 (1)	A1	F28		9.7 (2)	A1	F8	X
4.10 (2)	A4	F19	X	6.11 (3)	R1	N3	NA	6.57 (31)	A1	F28		9.8 (2)	A1	F8	X
4.11 (1)	A4	U2		6.12 (31)	A1	F25		6.58 (31)	A4	F28		9.9 (2)	A1	F23	UE
4.12 (1)	A4	F26		6.13 (31)	A1	F25		6.59 (1)	A4	F28		9.10 (3)	O	N3	NA
4.13 (1)	R1	RB	X	6.14 (31)	A1	N4	NA	6.60 (1)	A4	F28		9.11 (2)	R1	F8	X
4.14 (3)	A2	F18		6.15 (2)	A1	N6	NA	6.61 (1)	A1	F25		9.12 (2)	A4	F8	X
4.15 (31)	A1	F26		6.16 (31)	A1	N4	NA	6.62 (1)	A4	F28		9.13 (2)	A1	N4	NA
4.16 (31)	A1	F9	X	6.17 (1)	A1	F29		7.1 (31)	A1	N4	NA	9.14 (2)	R1	N6	NA
5.1 (3)	A2	F21	X	6.18 (31)	A1	F9	X	7.2 (2)	A1	F17					
5.2 (2)	A1	N4	NA	6.19 (31)	A1	F25		7.3 (2)	A1	F18					
5.3 (31)	A1	F11	UE	6.20 (2)	A1	F23	UE	7.4 (2)	A1	N4	NA				
5.4 (2)	A4	F12	X	6.21 (31)	A1	F25		7.5 (3)	O	N3	NA				
5.5 (3)	A2	F13	X	6.22 (31)	A1	F25									

() - Priority

ACCEPT - Acceptability of SNUPPS' Response

- A1 - Accepted per NRC (Hopkins, Edison) letter to SNUPPS (UE, KG&E) dated 02/16/82
- A2 - Accepted per NRC (Youngblood) letter to SNUPPS (Schnell, Koester) dated 03/08/83
- A3 - Acceptable per SLNRC 82-016, 03/16/82
- A4 - Accepted per NRC (Youngblood) letter to SNUPPS (Schnell, Koester) dated 07/02/82
- A5 - Acceptable per SLNRC 82-020, 04/12/82
- R1 - Reviewed per NRC (Hopkins, Edison) letter to SNUPPS (UE, KG&E) dated 02/16/82
- 0 - Reviewed per NRC Audit of the SNUPPS Control Room during the week of 2/27/84

ACTION - Action as follows:

- F3 - FCWP FJ108 - 003
- F4 - FCWP FE094 - 004
- F8 - FCWP FJ200 - 008
- F9 - FCWP FJ200 - 009
- F10 - FCWP FJ200 - 010
- F11 - FCWP FJ200 - 011
- F12 - FCWP FJ200 - 012
- F13 - FCWP FJ200 - 013
- F14 - FCWP FJ200 - 014
- F15 - FCWP FJ200 - 015
- F16 - FCWP FJ200 - 016
- F17 - FCWP FJ200 - 017 or FCWP FJ106 - 017
- F18 - FCWP FJ200 - 018 or FCWP FJ106 - 018
- F19 - FCWP FJ200 - 019
- F20 - FCWP FJ200 - 020
- F21 - FCWP FJ200 - 021
- F22 - FCWP FJ200 - 022
- F23 - FCWP FJ200 - 023
- F24 - FCWP FJ200 - 024
- F25 - FCWP FJ200 - 025
- F26 - FCWP FJ200 - 026
- F27 - FCWP FJ200 - 027
- F28 - FCWP FJ200 - 028
- 202 - FCWP FJ200 - 202
- RBC - Rework Plans RJ200-B & RJ200-C
- N - No action required
- N2 - No action required per NRC (Youngblood) letters to SNUPPS (Schnell, Koester) dated 03/08/82
- N3 - No action required per SLNRC 83-016, 03/16/82
- N4 - No action required per NRC (Youngblood) letter to SNUPPS (Schnell, Koester) dated 07/02/82
- N6 - No action required per SLNRC 83-0063, 11/30/83
- U1 - Utility administrative function
- U2 - Utility to perform hardware change

IMPLEM - Implementation as follows:

- UE - Union Electric Site Specific
- NA - Not applicable (no action required)
- X - Modification has been completed
- RF - Implementation planned prior to completion of
the first refueling outage

WOLF CREEK IMPLEMENTATION SCHEDULE FOR SUPPLEMENTARY SURVEY
AND AUXILIARY SHUTDOWN PANEL FINDINGS

SUPPLEMENTARY SCHEDULE															ASP REVIEW														
FINDING AND PRIORITY	A C T	U N D	U N D	F L	5 % P	R E F	A /	FINDING AND PRIORITY	A C T	U N D	U N D	F L	5 % P	R E F	A /	FINDING AND PRIORITY	A C T	U N D	U N D	F L	5 % P	R E F	A /						
1.1 (5)	X							5.16 (0)	X					X		1.1 (2)	UE												
2.1 (5)		X						5.17 (5)		X						1.2 (1)	X				X								
2.2 (0)	X			X				5.18 (0)	X			X				1.3 (2)	X				X								
2.3 (5)	X			X				5.19 (0)	X			X (Note 2)				1.4 (2)	X				X (Note 1)								
2.4 (6)		X						5.20 (6)		X						1.5 (2)	X				X (Note 1)								
2.5 (5)		X						5.21 (6)		X						1.6 (2)	X				X								
2.6 (5)		X						7.1 ()			X					2.1 (2)	X						X						
2.7 (5)		X						7.2 (5)		X						2.2 (5)		X											
2.8 ()	X			X				7.3 (5)		X						2.3 (1)	X				X								
3.1 (4)			X					7.4 (5)		X						4.1 (2)		X											
4.1 (6)		X						7.5 (5)		X						4.2 (4)	X				X								
4.2 (0)	UE							7.6 (5)	X					X		4.3 (5)		X											
4.3 (6)		X						7.7 (5)		X						4.4 (5)	X				X								
4.4 (0)	UE							7.8 (5)		X						4.5 (5)	X				X								
4.5 (0)		X						7.9 (5)		X						5.1 (5)		X											
4.6 (0)	UE							7.10 (6)		X						5.2 (5)		X											
5.1 (6)	X						X	7.11 (5)		X						5.3 (5)		X											
5.2 (0)	X			X				7.12 (6)		X						5.4 (5)		X											
5.3 (5)	X					X		7.13 (5)		X						5.5 (5)		X											
5.4 (5)	X					X		7.14 (5)		X						5.6 (5)		X											
5.5 (5)		X						7.15 (5)		X						5.7 (5)		X											
5.6 (5)		X						7.16 (6)		X						5.8 (5)	X					X							
5.7 (5)		X						7.17 (5)	X			X				5.9 (5)	X				X								
5.8 (5)	X					X		7.18 (5)		X						5.10 (5)		X											
5.9 (0)	UE							8.1 ()		X						5.11 (2)		X											
5.10 (5)	X					X		8.2 (5)		X						6.1 (5)	X				X								
5.11 (5)	X					X		8.3 (5)		X						6.2 (5)	X				X								
5.12 (5)	X			X				8.4 (5)		X						6.3 (2)	X				X								
5.13 (6)		X						8.5 (5)		X						6.4 (5)	X				X								
5.14 (5)	X			X				9.1 ()	X					X		6.5 (5)		X											
5.15 (5)	X			X												8.1 (5)		X											
																8.2 (1)	X				X								
																8.3 (2)		X											

ACT - Action to be taken

NO - No action to be taken

UND - Undecided - will be investigated during Environmental Study

FL - Implementation expected by Fuel Load

5%P - Implementation planned prior to exceeding 5% power

REF - Implementation planned prior to completion of first refueling outage

A/T - Administratively controlled or handled through training

UE - Union Electric Callaway Plant Specific

(Note 1) - By fuel load, a temporary step will be made available in the Auxiliary Shutdown Panel Room. Prior to exceeding 5% power, KG&E will install a raised floor in The Auxiliary Shutdown Panel Room.

(Note 2) - By fuel load, the proper chart paper will be installed on all but seven of the chart recorders. It is anticipated that the paper for these seven chart recorders will be received and installed prior to exceeding 5% power. In the interim, until the remainder of the paper is installed, the recorder tag number and On/Off times and dates will be noted on the 0-100% scale paper that will be used on the seven chart recorders.

Status of Findings from Essex
Review of WCGS Site Specific Control Panels
RL013 and RL014

<u>FINDING</u> <u>NO</u>	<u>ACT</u>	<u>IMPLEM</u>
1	X	X
2	X	X
3	X	X
4	X	X
6	X	X
7		NA
8	X	FL
9	X	X
10	X	FL
11	X	FL
12	X	FL
13	X	FL
14	X	FL
15	X	FL
16	X	X
17	X	FL
18	X	FL
19	X	FL
20	X	FL
21	X	FL
22	X	X
23	X	RF
24		NA
25	X	X
26		NA
27	X	X
28	X	FL
29		NA
30		NA

ACT - Action required

IMPLEM - Implementation as follows:

X - Modification has been completed
 NA - Not applicable (No action required)
 FL - Implementation expected by fuel load
 RF - Implementation planned prior to completion
 of first refueling outage