

ENTERGY OPERATIONS
Arkansas Nuclear One
1448 SR 933
Russellville, AR 72801

98J

FAX COVER SHEET

DATE: 07/05/01 TIME:
TO: Rebecca Neese PHONE: (817) 860-8212
FROM: Woody Walker PHONE: (501) 858-4923
RE: Fire Zone 98-J
CC:

Number of pages including cover sheet: 7

Message

Per your request, attached is a printout of all raceways routed through Zone 98-J. I have indicated on the printout the raceways that contain 480V power and higher. The 4160V cables are the feeder cables from the non-safety related bus (A2) to the green ESF bus (A4). The feed to the red train bus is not routed through the zone.

In regards as to whether a Loss of Off-site Power occurs, the feeds from the Start-up Transformers to the non-safety related buses are not routed through the zone. Consequently, A1 and A2 are capable of being energized from an off-site source. Due to the complexity of the circuits, we have never verified that the control circuits for the various breakers are unaffected (i.e. the breakers associated with the off-site source could be affected). Calculation 95-E-0066-02 (which was provided during the bag trip) has a section (pp. 99-105) that lists the components that are affected in 98-J as well as a separate list of components that are not affected (i.e. fire modeling determined that damage does not occur). Single line drawing E-4, shows that breaker A113 is associated with the feed from Startup transformer # 1 (the normal feed) to A1. This component is not listed as 'failed' or 'not failed' in the calc. Consequently, it is unclear whether a fire could affect this control circuit or not. However, in the event the associated breaker was to spuriously trip, DC control power could be removed locally (at the switchgear) and the breaker manually closed. Therefore, power from off-site sources can be provided to non-safety related bus A1 (and A2) and to safety related bus A3.

Bkrs controlled by 125V dc Pwr

Key down NOT in list of Q's

- Bkr 113 Elec feed from SUT #1 to bus A1 =>
- Control circuits for bkrs associated with off-site pwr sources =>

How would operator know to do this?
What fault caused it?

2x-2

T-956 P. 02/07 Job-341

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JUL-05-01 15:09 From: AND GSB 1

Link	Code	Description	Notes
1	CO	C2342	
1	CO	C4092	
1	CO	C4093	
1	CO	C4096	
1	CO	C4098	
1	CO	C4099	
1	CO	C4108	
1	CO	C4170	
1	CO	C4171	
1	CO	C4460	
1	CO	C4537	
1	CO	C4598	
1	CO	C4703	
1	CO	C9688	
1	CO	C9739	
1	CO	EB1009	
1	CO	EB1029	
1	CO	EB1033	
1	CO	EB1184	
1	CO	EB1186	
1	CO	EB2113	
1	CO	EB2245	
1	CO	EB2248	
1	CO	EB2249	
1	CO	EB2274	
1	CO	EB2275	
1	CO	EB2306	
1	CO	EB2309	
1	CO	EC1014	
1	CO	EC1128	
1	CO	EC1129	
1	CO	EC1153	
1	CO	EC1154	
1	CO	EC1175	
1	CO	EC1179	
1	CO	EC1180	
1	CO	EC1181	
1	CO	EC1182	
1	CO	EC1183	

480V



CO = CONDUIT

EB = 480V
C = 120V control

Component Module: 1 FZ 98-J TAG=45931 [Links (Raceways)]

T-956 P.03/07 Job-341

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JUL-05-01 15:09 From:ANO GSB 1

Unit	Code	EC#	Link	Notes
1	CO	EC1184		
1	CO	EC1193		
2	CO	EC1203		
1	CO	EC1204		
1	CO	EC1258		
1	CO	EC1259		
1	CO	EC1260		
1	CO	EC1287		
1	CO	EC1397		
1	CO	EC1410		
1	CO	EC1411		
1	CO	EC1412		
1	CO	EC1498		
1	CO	EC1504		
1	CO	EC1530		
1	CO	EC1536		
1	CO	EC2006		
1	CO	EC2017		
1	CO	EC2018		
1	CO	EC2019		
1	CO	EC2020		
1	CO	EC2021		
1	CO	EC2022		
3	CO	EC2025		
1	CO	EC2026		
1	CO	EC2027		
1	CO	EC2028		
1	CO	EC2124		
1	CO	EC2126		
1	CO	EC2127		
1	CO	EC2128		
1	CO	EC2130		
1	CO	EC2131		
1	CO	EC2172		
1	CO	EC2173		
1	CO	EC2174		
1	CO	EC2175		
1	CO	EC2184		
1	CO	EC2205		

JUL-05-01 15:10 From:ANO GSB I

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T-956 P.04/07 Job-341

CO	EC	EC	EC
CO	EC	EC2208	
CO	EC	EC2210	
CO	EC	EC2211	
CO	EC	EC2212	
CO	EC	EC2214	
CO	EC	EC2215	
CO	EC	EC2218	
CO	EC	EC2217	
CO	EC	EC2218	
CO	EC	EC2226	
CO	EC	EC2227	
CO	EC	EC2228	
CO	EC	EC2229	
CO	EC	EC2313	
CO	EC	EC2315	
CO	EC	EC2319	
CO	EC	EC2324	
CO	EC	EC2325	
CO	EC	EC2440	
CO	EC	EC2486	
CO	EC	EC2520	
CO	EC	EC2524	
CO	EC	EC2545	
CO	EC	EC2546	
CO	EC	EC2549	
CO	EC	EC2550	
CO	EC	EC2555	
CO	EC	EC2757	
CO	EC	EC2759	
CO	EC	EC2762	
CO	EC	EC2770	
CO	EC	EC2788	
CO	EC	EC2795	
CO	EC	EC2806	
CO	EC	EC2822	
CO	EC	EC2954	
CO	EC	EC3007	
CO	EC	EC4021	
CO	EJ	EJ1002	

EJ instr

Component Module: 1 FZ 96-J TAG=45931 (Links (Raceways))

T-956 P. 05/07 Job-341

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From:ANO GSB 1

JUL-05-01 15:10

Line	Code	Description	Quantity	Unit
18	CO	EJ1003		
19	CO	EJ1027		
20	CO	EJ1034		
21	CO	EJ2012		
22	CO	EJ2047		
23	CO	EJ3002		
24	CO	EJ3004		
25	CO	ER2005		
26	CO	ER2007		
27	CO	ER2034		
28	CO	ER2035		
29	CO	J4066		
30	CO	J4801		
31	CO	J4806		
32	CO	J8752		
33	CO	LOST4		
34	EQ	43-D02		
35	EQ	72-A201		
36	EQ	C155		
37	EQ	C198		
38	EQ	C512		
39	EQ	C514		
40	EQ	C540		
41	EQ	D02		
42	EQ	D0212		
43	EQ	D0222A		
44	EQ	D0222B		
45	EQ	D0223		
46	EQ	D0224		
47	EQ	D0241B		
48	EQ	D0242A		
49	EQ	D0242B		
50	EQ	D04A		
51	EQ	D04B		
52	EQ	D14		
53	EQ	Q21		
54	EQ	Q2104		
55	EQ	Q2109		
56	EQ	Q2114		



EQ = EQUIPMENT (I.E. CABINET, JUNCTION BOX, ETC.)

Component Module: 1 FZ 88-J TAG-45931 [Links (Raceways)]

T-956 P. 06/07 Job-341

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JUL-05-01 15:10 From:ANO GSB 1

Line	Code	Description	Notes
157	EQ	D2116	
158	EQ	D25	
159	EQ	JB250	
160	EQ	JB342	
161	EQ	JB343	
162	EQ	JB345	
163	EQ	JB346	
164	EQ	JB347	
165	EQ	JB348	
166	EQ	JB711	
167	EQ	JB713	
168	EQ	RA2	
169	EQ	TB561	
170	EQ	TB669	
171	EQ	TB670	
172	EQ	VCH4A	
173	EQ	VCHM4A	
174	EQ	VPSA	
175	EQ	VUC14C	
176	EQ	XSH-1155	
177	EQ	XSH-1158	
178	EQ	XSH-1157	
179	EQ	XSH-1323	
180	EQ	XSH-1324	
181	EQ	XSH-1325	
182	EQ	XSH-1326	
183	TR	DA008	
184	TR	DB004	
185	TR	DB015	
186	TR	DC018	
187	TR	DC019	
188	TR	DC178	
189	TR	DC179	
190	TR	DC180	
191	TR	DC182	
192	TR	DC183	
193	TR	DC184	
194	TR	DC185	
195	TR	DC218	

TR = TRAY

4160V
430V
480V
2A2 TO 2A4 FEED

DB 480VOLT
DC 120V control
ER 120V instr

Component Module: 1 FZ 98-J TAG=45931 [Links (Raceways)]

T-956 P. 07/07 Job-341

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JUL-05-01 15:11 From:ANO GSB 1

Unit	Code	Description	Sub-Code
25	TR	DC262	
26	TR	DC263	
27	TR	DH006	
28	TR	DH008	
09	TR	DJ001	
10	TR	DJ004	
07	TR	DJ048	
03	TR	DJ049	
04	TR	DJ050	
05	TR	DJ051	
16	TR	EB123	
17	TR	EB203	
18	TR	EB204	
19	TR	EB205	
20	TR	EC206	
21	TR	EC207	
22	TR	EC208	
23	TR	EC224	
24	TR	EC225	
25	TR	EC229	
216	TR	EC233	
217	TR	EC234	
218	TR	EC235	
219	TR	EC241	
220	TR	EC242	
221	TR	ER201	
222	TR	ER202	

6900V FEED FROM A2 TO RCPs

480V