

Detroit

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June 15, 1981  
EF2 - 53,675

Mr. L. L. Kintner  
Division of Project Management  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Kintner:

Reference: Enrico Fermi Atomic Power Plant, Unit 2  
NRC Docket No. 50-341

Subject: Transmittal of Response to Part 4 of  
Question 021.32

Attached herewith is Part 4 of Edison's response to  
Question 021.32. This section describes Edison's  
approach to remote shutdown from the control room  
due to control room fire, as described in the May 27,  
1981 meeting with your Staff.

Very truly yours,

W. F. Colbert  
Technical Director  
Fermi 2 Project

WFC/RCA:jl

cc: Mr. B. Little

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4. Fermi 2 will be using a method of remote shutdown from the control room if a control room panel fire causes the need to evacuate the control room. The design basis for such a fire is that the control room panel fire would be extinguished before damage could occur to more than one panel. The smoke from such a fire could cause the evacuation of the operating personnel after a limited amount of operation is performed. To address such a scenario, Fermi 2 will have two divisional remote shutdown panels.

Table 021.32-1 lists the systems necessary for shutdown and vital support to achieve hot and cold shutdown from the control room. Table 021.32-5 lists the instrumentation and manual equipment control provided on the remote shutdown panels. Because the control panel fire will leave one of the two redundant divisions intact, credit is taken for the automatic operation of equipment in the functional division. The division I remote shutdown panel is provided to meet GDC 19 and is provided with equipment to achieve hot and cold shutdown. Although cold shutdown can be achieved from this panel, the control room habitability would be re-established before the need to go to cold shutdown. The division II remote shutdown panel will include instruments and controls necessary to perform the manual operating functions to achieve hot shutdown.

Fermi 2 is providing remote shutdown capability to bypass any control room operating panel. The cable entry to the control room panels is bottom fed from the cable spreading room.

SYSTEMS REQUIRED FOR SHUTDOWN

Systems Required for Hot and Cold Shutdown

- C11 Control Rod Drive - Manual Scram Circuits Only
- B21 Main Steam Isolation Valves (manual closure only)
- T50-04 Suppression Pool Temperature Monitoring
- B21 Reactor Vessel Pressure Instrumentation
- T41 Control Center HVAC
- T41 ESF Fan Coil Units, for Areas Servicing Shutdown Systems
- P44 EBCW
- P45 EESW
- R30-01 Emergency Diesel Generators and Auxiliaries
- X41-03 EDG and EDG Switchgear Room HVAC
- R32 ESF DC System
- R30, R14, R16 ESF AC Distribution System, for Shutdown System Equipment
- E11-51 PHRSW System
- E11-56 RHR Cooling Towers

Systems Required Only for Hot Shutdown

- E51 RCIC (Div. I)
- B21 Safety Relief Valves (Div. I)
- E41 HPCI (Div. II)
- E11 RHR, Containment Cooling Mode

Systems Required Only for Cold Shutdown

- E11 RHR, Shutdown Cooling Mode
- B31 Recirc. (Inboard Isolation Valves Only)

TABLE 021.32-5

EXISTING SHUTDOWN PANEL (DIV I)  
EQUIPMENT LIST

ITEM	P.I.S. NO.	SERVICE	DIV.	CONTROL DEVICE
<u>RCIC SYSTEM</u>				
1	E51-C002	Trip throttle valve	I	BLPB
2	E51-C002	Trip throttle valve position	I	BLDS
3	-	Manual initiation of RCIC (Bypass low Reactor Water level)	I	Round PB
4	E51-F045	Steam to turbine	I	BLPB
5	E50-R613	Flow indicator	I	Beckman V5A
<u>RHR SYSTEM</u>				
6	E11-C001A	RHR Service Water Pump	I	CMC Sw
7	E11-C001C	RHR Service Water Pump	I	CMC Sw
8	E11-C002A	RHR Pump	I	CMC Sw
9	E11-F024A	Containment Spray M.O.V.	I	BLPB
10	E11-F028A	Containment Spray M.O.V.	I	BLPB
11	E11-F048A	Hx Shell Side Bypass M.O.V.	I	BLPB
12	E11-F068A	Cont. Cooling Hx Discharge M.O.V.	I	BLPB
13	E11-F008	RHR Suction Cooling (OUTER)	II	BLPB
14	E11-F009	RHR Suction Cooling (INBD)	I	BLPB
15	E11-F006A	Shutdown Cooling M.O.V.	I	BLPB
16	E11-F015A	RHR Injection M.O.V.	I	BLPB
17	E11-F004A	RHR Pump Suction M.O.V.	I	BLPB
18	E11-F017A	RHR Outboard M.O.V.	I	BLPB
19	E11-R604A	RHR Flow Indicator	I	Beckman V5A

BLPB - Back Lighted Push Button  
BLDS - Back Lighted Display

## TABLE 021.32-5

EXISTING SHUTDOWN PANEL (DIV I)  
EQUIPMENT LIST

ITEM	P.I.S. NO.	SERVICE	DIV.	CONTROL DEVICE
<u>NUCLEAR BOILER SYSTEM</u>				
20	B21-R605A	Reactor Level Indicator	I	Beckman V5A
21	B21-R005A	Reactor Pressure I Indicator	I	Foxboro 6400C
22	B21-F013D	Manual Relief Valve	I	BLPB
23	B21-F013H	Manual Relief Valve	I	BLPB
<u>RECIRCULATION SYSTEM</u>				
24	B31-F023A	Recirc Pump Suction Valve	I	BLPB
<u>MISCELLANEOUS</u>				
25	E1156C001-A	Mech. Draft Cooling Tower Fan A	I	CMC Sw
26	E1156C001-C	Mech. Draft Cooling Tower Fan C	I	CMC Sw
27	C11-C001A	CRD Pump	I	CMC Sw
28		HPCI Manual Trip	II	Selector Sw Citler Hammer
29		Drywell Press Indicator	I	Foxboro 6400HC
30		Suppression Pool Water Temp. Indicator Off Temp Element T50N405A	I	Weston 1316
31		Transfer Switch Logic Power For 64B BRKR Cont	I	Type SBM Model 10AA50
32		Transfer Switch Logic Power For 64C BRKR Cont	I	Type SBM Model 10AA50

PROPOSED DIV II SHUTDOWN PANEL  
EQUIPMENT LIST

<u>DESCRIPTION</u>	<u>LEGEND ENERGY</u>	<u>MAKE</u>
2-POSITION KEYLOCK SWITCH	TRANSFER DIVISION II POWER - AC	ELECTROSWITCH
2-POSITION KEYLOCK SWITCH	TRANSFER DIVISION II POWER - DC	ELECTROSWITCH
2-POSITION KEYLOCK SWITCH	BYPASS STM LEAK DETECTION ISOLATION SIGNAL	ELECTROSWITCH
BACK LIGHTED PB	HPCI INITIATE	MASTER SPECIALTIES
M/A CONTROL STATION	HPCI FLOW	GE-MAC
PRESSURE INDICATOR	DRYWELL PRESSURE	ANALOG
TEMPERATURE INDICATOR	SUPPRESSION POOL WATER TEMPERATURE	WESTON
FLOW INDICATOR	HPIG HEADER FLOW	HAYS REFVENC
LEVEL INDICATOR	REACTOR LEVEL	WESTON
PRESSURE INDICATOR	REACTOR PRESSURE	ANALOG