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

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.

Table 021.32-1

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	RHRSW 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)

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TABLE 021.32-5

EXISTING SHUTDOWN PANEL (DIV I)

EQUIPMENT LIST

ITEM	P.I.S. NO.	SERVICE	DIV.	CONTROL DEVICE
RCIC SYSTEM				
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
RHR SYSTEM				
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
		NUCLEAR BOILER SYSTEM		
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
		RECIRCULATION SYSTEM		
24	B31-F023A	Recirc Pump Suction Valve	I	BLPB
		MISCELLANEOUS		
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 Cutler 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

DESCRIPTION	LEGEND ENGRAVING	MAKE
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 SPECIALITIES
M/A CONTROL STATION	HPCI FLOW	GE-MAC
PRESSURE INDICATOR	DRYWELL PRESSURE	ANALOGIC
TEMPERATURE INDICATOR	SUPRESSION POOL WATER TEMPERATURE	WESTON
FLOW INDICATOR	HPIC HEADER FLOW	HAYS REPUBLIC
LEVEL INDICATOR	REACTOR LEVEL	WESTON
PRESSURE INDICATOR	REACTOR PRESSURE	ANALOGIC