ABB COMBUSTION ENGINEERING
NUCLEAR POWER
COMBUSTION ENGINEERING, INC.

U.S. DEPARTMENT OF ENERGY
ADVANCED LIGHT WATER REACTOR
CERTIFICATION PROGRAM

System 80+ Design Certification

Fire Hazards Risk Assessment (Phase I)

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Revision No.	Issue Date	Description of Revision

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System 80+ Fire Hazards Risk Assessment (Phase I)

1.0 Introduction

The System 80+ Phase I Fire Hazards Risk Assessment is a part of the ongoing Fire Hazards Assessment being developed in support of the System 80+ plant design. It builds on the information developed by Duke Engineering & Services, Inc. in Volumes 1 - 5 of the Fire Hazards Assessment to provide a preliminary analysis of the risk to safe shutdown capability resulting from fires in areas of the Nuclear Island other than in the Containment or the Control Room. It qualitatively evaluates the risk resulting from a fire in each fire area based on the assumption that the fire causes loss of all active components and functionality in the affected area. Adjacent fire areas are identified which will be necessary for future evaluation of the risk associated with fire propagation into adjacent areas. Due to the current stage of development of the detailed design and the lack of "as-built" data, a quantitative assessment will be deferred until such time as more detailed information becomes available.

The Containment and Control Room have not been considered in this analysis. In the Fire Barrier drawings, the Containment is not divided into individual fire areas. Rather, it forms one large fire area. A Phase I analysis of the affects of a fire in Containment which engulfs the entire fire area would not result in useful information since the containment necessarily contains equipment from both divisions. Fire Protection design features of the System 80+ containment include physical separation, intermediate fire barriers, fire detection and suppression, as well as functional redundancy among the required safe shutdown systems and components. A more comprehensive analysis involving the exact location of equipment, combustibles, fire detection and suppression equipment, and intermediate fire barriers will be performed to verify that the ability to achieve and maintain safe shutdown despite the occurrence of a localized fire in the containment will be performed when sufficient design detail is available.

The Control Room has also not been analyzed in terms of the affect of a fire which engulfs the entire fire area on the ability to achieve and maintain safe shutdown. The continuous presence of operations personnel in the control room precludes the possibility of a fire in the control room going undetected to the point at which it can spread to engulf the entire control room without some action to suppress the fire and mitigate its effects on the part of operations personnel. The safe shutdown panel, located in a separate fire area, provides an alternate means of accomplishing a safe shutdown and safely maintaining the safe shutdown condition.

2.0 Methodology

The evaluation addressed each of the fire areas defined in the Fire Barrier Location drawings for the Nuclear Island, the General Arrangement drawings and CESSAR-DC which provide locations for major components. Fire Areas 59 (Containment) and 123 (Control Room) were not addressed. It also utilized information provided in the Fire Hazards Assessment as input to the analysis. Each fire area was analyzed to assure that, in the event that all the active equipment in the area affected by a fire were rendered inoperable by the fire, redundant systems, trains, or channels would be available in another fire area, thus enabling safe shutdown to be achieved and maintained.

This analysis was based on the assumption that the fire would not spread to adjacent areas due to the presence of 3-hour fire barriers between each of the areas. It also was based on the assumption that no challenges to redundant systems would be experienced as a result of the fire. Finally it assumes that redundant systems and equipment are not rendered inoperable by events not related to the fire.

The ability of the plant to achieve and maintain safe shutdown was evaluated for a fire in each of the areas to verify that sufficient redundancy exists across the divisional barrier. This will assure that the functions associated with achieving and maintaining safe shutdown would be available despite a major fire confined to a single fire area. The results of this evaluation are shown in Table 5.

The presence of 3-hour fire-rated barriers between each of the plant's fire areas precludes an uncontrolled and rapid spread of a fire to adjacent areas. A quantitative analysis to evaluate the effects of a fire which propagates from one area to another would have to take into account the various propagation paths available, the probability of failure of barriers in each path, and the location of equipment within the adjacent area with respect to each propagation path. This analysis will be performed at a later stage of the System 80+ design when such detailed information is available.

This approach is intended to verify that the high-level of assurance that safe shutdown can be achieved and maintained which is afforded by the System 80+ plant design is realized as the design proceeds.

3.0 System 80+ Plant Design

3.1 Overview

The System 80+ plant is designed along two parallel divisions which are each fully capable of achieving and maintaining a safe shutdown condition despite the complete loss of the redundant division's functionality. The two divisions outside the containment are separated by a hard concrete inter-divisional barrier with no openings through which a fire in one division may propagate to the other division. Layout of the System 80+ plant is such that inter-divisional Fire Areas do not overlap vertically. This precludes water and combustion products resulting from a fire and associated fire suppression efforts in one division from causing damage to shutdown equipment and impairing the safe shutdown capability of the other division.

Ventilation system supply and exhaust locations are placed so as to minimize the potential of smoke exhausted from a fire in one division being drawn into the HVAC systems associated with the redundant division. The layout also precludes smoke from a fire in one division from causing damage to safe shutdown equipment and impairing the safe shutdown capability of the redundant division.

The Control Room and Remote Shutdown Panel area are served by a pair of redundant HVAC systems, each drawing their ventilation supply from their respective divisions. In the event of a fire which would contaminate both HVAC supplies with smoke or combustion products, the Control Room and Remote Shutdown area could be supplied from the redundant emergency recirculation systems.

In areas inside the containment where equipment and cabling associated with safe shutdown equipment for the two divisions converge, an alternate path is provided to achieve and maintain safe shutdown utilizing systems and equipment spatially and electrically isolated from the convergent systems. An engineering analysis will be performed in the future to verify that safe shutdown can be achieved and maintained through the use of the alternate means of safe shutdown.

3.2 Table 1 - Fire Areas

Table 1 lists the individual Fire Areas. Fire Areas which consist of one or more rooms or corridors on a

single elevation are shown with a single elevation number. A number of areas extend vertically through the structure. These include HVAC and cable chases and stairways. Those areas which span several floors are shown with pairs of elevation numbers corresponding to those of the lowermost level and uppermost level. Horizontal locations are indicated by the X column and Y column data corresponding to x and y coordinates on the plant arrangement drawings.

3.2 Table 2 - System List

Table 2 lists the individual systems as defined in CESSAR-DC. Information about safety-class, seismic category, quality class, and whether the system is required to achieve and maintain a safe shutdown is included where that data is provided in CESSAR.

3.3 Table 3 - Equipment by Fire Area

Table 3 lists the individual equipment items located in each of the fire areas. Two sources were used to locate the major equipment items: the plant arrangement drawings and the CESSAR equipment list and associated system descriptions and drawings contained in CESSAR. Many equipment items are identified generically on the plant arrangement drawings. For example, motor control centers are usually identified as being associated with Channel A, B, C, D, X, or Y. No further information regarding their function or exact identification is available from the sources used.

3.4 Table 4 - Adjacent Fire Areas

Table 4 identifies the fire areas which are adjacent to each individual fire area. Propagation of a fire to one or more of these adjacent fire areas may be a possibility in the event of failure of one or more fire barriers between the areas.

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
1	I	Channel A Vital Instrument & Equipment Room	50/	B-E	17-22
2	I	Channel C Vital Instrument & Equipment Room	50/	E-H	18-22
3	II	Channel B Vital Instrument & Equipment Room	50/	B-E	12-17
4	II	Channel D Vital Instrument & Equipment Room	50/	E-H	12-16
5	I	Maintenance Work Area	50/	E-H	23-25
6	II	Maintenance Work Area	50/	E-H	9-11
7	I	Instrument Air Room	50/	C-E	23-25
8	II	Instrument Air Room	50/	C-E	9-11
9	I	Component Cooling Water Pump Room 1A	50/	1A-K	24-25
10	I	Component Cooling Water Pump Room 1B	50/	1A-K	23 24
11	II	Component Cooling Water Pump Room 2B	50/	1A-K	10-11
12	II	Component Cooling Water Pump Room 2A	50/	1A-K	9-10
13	I	HVAC Chase	50/170	Q-R	18-19
14	I	Janitorial/Health Physics Storage/Work Area	50/	Q-U	17-25
15	I	HVAC Chase and Control Room Mechanical Room	50/130	F-G	20-21
16	II	HVAC Chase and Control Room Mechanical Room	50/130	F-G	13-14
17	II	HVAC Chase	50/170	P	15-16
18	I	HVAC Chase	50/170	P	18-19
19	B*	Stairway - Control Room to Vital Instrument & Equipment Room	50/115	D-E	18-19
20	I	General Storage Area	50/	B-C	24-25
21	I	Cable Chase	50/91	E-F	17-18
22	II	Cable Chase	50/91	E-F	16-17
23	I	Elevator Shafts & Machine Room	50/146	B-C	22-23
24	II	Pipe Chase	50/170	N-O	11-12
25	II	Elevator Shaft & Machine Room	50/170	P	11-12
26	II	General Storage Area	50/	B-C	9-10
27	II	Stairway	50/146	B	10-11
28	II	HVAC Chase	50/170	Q-R	15-16
29	I	Stairway	50/146	B	23-24
30		Area Number Reserved	/		

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
31	II	Stairway	50/170	O-P	11-12
32	II	Personnel Access Aisle	50/	C-T	9-17
33	I	Personnel Access Aisle	50/	C-R	17-25
34	I	Motor Driven Emergency Feedwater Pump Room	50/	K-M	21-22
35	II	Motor Driven Emergency Feedwater Pump Room	50/	K-M	12-13
36	I	Turbine Driven Emergency Feedwater Pump Room	50/	I-K	21-22
37	II	Turbine Driven Emergency Feedwater Pump Room	50/	I-K	12-13
38	I	Channel C Subsphere Area	50/	K-P	17-22
39	II	Channel D Subsphere Area	50/	K-O	12-17
40	II	Channel B Subsphere Area	50/	F-K	12-17
41	I	Channel A Subsphere Area	50/	F-K	17-22
42	II	Emergency Diesel Generator Building 2	50/70	Q-K	9-11
43	I	Emergency Diesel Generator Building 1	50/70	K-Q	23-25
44	II	CVCS Charging Pump Area	50/	R-T	15-16
45	I	CVCS Charging Pump Area	50/	R-T	19-20
46	I	Elevator Shaft & Machine Room	50/170	P	22-23
47	I	Stairway	50/146	O-P	22-23
48	I	HVAC Chase	50/170	N-O	22-23
49	I	Pipe Chase	50/170	N	22-23
50	II	CVCS Area and Primary Chemistry Lab	50/81	Q-W	9-17
51	II	Elevator Shafts and Machine Room	50/146	B-C	11-12
52		Area Number Reserved	/		
53	II	Channel B Personnel Access Aisle	70/	B-IA	11-17
54	I	Channel A Personnel Access Aisle	70/	B-IA	17-24
55	II	Channel D Personnel Access Aisle	70/	IA-T	11-17
56	I	Channel C Personnel Access Aisle	70/	IA-T	17-24
57	I	Essential Chilled Water Area	70/	C-E	23-25
58	II	Essential Chilled Water Area	70/	C-E	9-11
59	B*	Containment	70/170	F-P	12-22
60	II	General Storage Area	70/	B-C	9-10

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
61	I	Normal Chilled Water Room	70/	E-H	23-25
62	II	Normal Chilled Water Room	70/	E-H	9-11
63	I	Channel C Cable Chase	50/91	E-F	18-19
64	II	Channel D Cable Chase	50/91	E-F	15-16
65	I	Channel A Equipment Room	70/	C-E	17-22
66	II	Channel B Equipment Room	70/	C-I	12-17
67	I	General Storage Area	70/	B-C	24-25
68	I	Equipment Access Shaft	70/170	Q-R	21a-22
69	B*	Remote Shutdown Panel	70/	D-E	18
70	I	Switchgear Room	70/	Q-R	19-21
71	II	Switchgear Room	70/	Q-R	13-15
72	II	Equipment Access Shaft	70/81	S-T	10-11
73	I	Channel C Equipment Room	70/	O-Q	19-21
74	II	Channel D Equipment Room	70/	O-Q	13-15
75	I	Valve Maintenance Shop & Hydrogen Recombiner Area	70/	Q-U	23-25
76	II	CVCS Area Storage & Hydrogen Recombiner Area	70/	Q-U	9-11
77	II	Fuel Pool Cooling Area	70/	K-P	12-17
78	II	Valve Gallery	70/	F-K	12-17
79	I	Valve Gallery	70/	F-K	17-22
80	I	Fuel Pool Cooling Area	70/	K-P	17-22
81	NA	Pool Purification Area and Pipe Chase	70/91	R-U	17-22
82	I	Emergency Feedwater Tank Room	70/91	H-K	23-25
83	II	Emergency Feedwater Tank Room	70/91	H-K	9-11
84	I	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room	70/146	H-L	22-25
85	II	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room	70/146	H-L	22-25
86		Area Number Reserved	/		
87		Area Number Reserved	/		
88		Area Number Reserved	/		

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
89	I	General Storage Area	91/	B-C	24-25
90	I	Personnel Access Aisle	91/	B-R	17-25
91	II	Radiation Access Control and Division II Personnel Access Area	91/	B-S	9-17
92	I	Channel A Non-Essential Equipment Room	91/	C-H	17-22
93	II	Channel B Non-Essential Equipment Room	91/	C-H	12-17
94	I	Security Equipment & CAS	91/	C-H	23-25
95	I	Penetration Room A	91/	F-G	17-20
96	II	Penetration Room B	91/	F-G	14-17
97	I	Penetration Room C	91/	O-P	17-20
98	II	Penetration Room D	91/	O-P	14-17
99		Area Number Reserved	/		
100		Area Number Reserved	/		
101	I	Channel C Non-Essential Equipment Room	91/	O-Q	19-21
102	II	Channel D Non-Essential Equipment Room	91/	O-Q	13-15
103	I	Fuel Pool Storage Area	91/	Q-U	23-25
104	I	Electrical Switchgear Room	91/	Q-R	19-21a
105	II	HVAC Chase	91/170	W-V	16-17
106	I	Fuel Handling Area	91/146	R-V	17-25
107	I	Fuel Area Storage	91/	R-S	20-21a
108	I	Fuel Area Storage Room	91/	R-T	18-19
109	I	Fuel Area Storage Room	91/	R-T	17-18
110	II	Resin Storage Area	91/	R-W	13a-17
111	II	Equipment Decontamination Area	91/	S-W	11-12
112	II	Electrical Switchgear Room	91/	Q-R	13a-15
113	II	Hot Machine Shop	91/	Q-U	9-11
114	II	Stairway	91/146	W	11-12
115	II	General Storage Area	91/	B-C	9-10
116		Area Number Reserved	/		
117	II	Tool Room	115/	E-F	15-16
118	II	Hot Tool Crib	115/	E-G	13-15

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
119	B*	Emergency Supply Storage Room	115/	E-F	16-17
120		Area Number Reserved	/		
121	B*	Document Room	115/	E-F	17-18
122	I	Storage Area	115/	E-G	18-20
123	B*	Control Room and Technical Services Center	115/130	B-E	16-18
124	B*	Computer Room	115/	C-E	19-20
125	I	Janitorial Storage Room	115/	F-H	20-22a
126		Area Number Reserved	/		
127	I	Storage Area	115/	Q-U	23-25
128	I	Subsphere Exhaust Room	115/	Q-R	19-21a
129		Area Number Reserved	/		
130	II	VCT,Boric Acid Tank & Drum Storage Area	115/	R-W	13a-17
131	II	Personnel Decontamination Area and Access Aisle	115/	B-H	10-24
132	II	Hot Instrument Shop	115/	S-W	11-12
133	II	Subsphere Exhaust Room	115/	Q-R	12-15
134		Area Number Reserved	/		
135	I	Personnel Access Aisle	115/	H-R	17-23
136	II	Personnel Access Aisle	115/	E-S	11-17
137	II	Personnel Access Aisle	130/	B-F	10-16
138	II	Operational Support Center AMU Room	130/	B-C	13a-15
139	B*	Operational Support Center	130/	B-E	13a-16
140	B*	Technical Support Area Conference Room	130/	B-D	19-21
141		Area Number Reserved	/		
142	B*	Technical Service Center Mechanical Room	130/	D-E	18-21
143		Area Number Reserved	/		
144	I	Nuclear Annex HVAC Mechanical Room	130/	Q-R	19-21a
145	I	Annulus HVAC Mechanical Room	130/	L-Q	19-23
146	I	Personnel Access Aisle	130/	D-R	17-23
147	II	Personnel Access Aisle	130/	L-S	11-17
148	II	Nuclear Annex HVAC Exhaust Mechanical Room I	130/	R-T	14-17

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 1 - FIRE AREA LIST

21-JUL-92

Fire Area	Division	Description	Init Elev/ Final Elev	X Col	Y Col
149	I	Nuclear Annex HVAC Exhaust Mechanical Room II	130/	T-U	14-17
150	II	Nuclear Annex HVAC Supply Mechanical Room	130/	U-W	14-17
151	II	Nuclear Annex HVAC Mechanical Room	130/	R-W	13a-15
152	II	Instrument Calibration Shop	130/	R-W	11-12
153	II	Annulus HVAC Mechanical Room	130/	L-Q	11-15
154		Area Number Reserved	/		
155		Area Number Reserved	/		
156	II	Hot Tool Crib	146/	L-N	11-13
157	I	Hot Tool Crib	147/	L-N	21-23
158	II	Personnel Decon, Storage, Laydown & Work Area	146/	N-W	11-17
159	I	Personnel Access Aisle	146/	N-R	17-23
160		Area Number Reserved	/		
161	I	Personnel Access Aisle	170/	O-R	17-23
162	I	Fuel Pool HVAC Exhaust Mechanical Room	170/	Q-R	19-21a
163	II	HVAC Mechanical Room	170/	P-W	15-17
164		Area Number Reserved	/		
165	I	Nuclear Annex HVAC Mechanical Room	170/	N-Q	19-23
166	I	Component Cooling Water Surge Tank Room	170/	L-N	21-23
167	II	Component Cooling Water Surge Tank Room	170/	N-O	[illegible]-12
168	II	Fuel Pool HVAC Supply & Exhaust Area	170/	U-W	15-1[illegible]
169		Area Number Reserved	/		
170		Area Number Reserved	/		
171		Area Number Reserved	/		
172		Area Number Reserved	/		
173		Area Number Reserved	/		
174		Area Number Reserved	/		
175	B*	Personnel Access Aisle (tentative assignment)	130/	B-D	20-24

* indicates area contains equipment associated with both Division I and Division II

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 2 - SYSTEM LIST

System Name	System Code	Safety Class	Seismic Category	Quality Class	Safe Shutdown?
ANNULUS VENTILATION SYSTEM	AVS				
BREATHING AIR SYSTEM	BAS				
CONTAINMENT AIR CLEANUP SYSTEM	CAC	NNS	I	2	
COMPRESSED AIR SYSTEMS	CAS				
CAVITY COOLING SUBSYSTEM	CAV	NNS	I	2	
CONTROL BUILDING VENTILATION SYSTEM	CBV				
CONDENSATE CLEANUP SYSTEM	CCS				
CONTAINMENT COOLING SUBSYSTEM	CCS	NNS	I	2	
COMPONENT COOLING WATER SYSTEM	CCW				
CONDENSATE STORAGE SYSTEM	CDS				
CHEMICAL FEED SYSTEM	CFS				
CONDENSATE & FEEDWATER SYSTEM	CFW				
COMBUSTIBLE GAS CONTROL SYSTEM	CGC				
COMPRESSED GAS SYSTEMS	CGS				
CONTAINMENT ISOLATION SYSTEM	CIS	2	I	1	
CIRCULATING WATER SYSTEM	CIW				
CONTAINMENT PURGE VENTILATION SYSTEM	CPS				
CONTAINMENT SPRAY SYSTEM	CSS				
CHEMICAL & VOLUME CONTROL SYSTEM	CVC				
CONTAINMENT COOLING & VENTILATION SYSTEM	CVS				
CHILLED WATER SYSTEM	CWS				
DIESEL GENERATOR STARTING AIR SYSTEM	DGA				
DIESEL GENERATOR FUEL OIL SYSTEM	DGF				
DIESEL GENERATOR INTAKE & EXHAUST SYSTEM	DGI				
DIESEL GENERATOR LUBE OIL SYSTEM	DGL				
DIESEL GENERATOR SYSTEM	DGS				
DIESEL GENERATOR COOLING WATER SYSTEM	DGW				
DIESEL BUILDING VENTILATION SYSTEM	DVS				
DEMINERALIZED WATER MAKEUP SYSTEM	DWS				
13.8KVAC AUXILIARY POWER SYSTEM	EA				
4160VAC AUXILIARY POWER SYSTEM	EB				
480VAC AUXILIARY POWER SYSTEM	EC				

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 2 - SYSTEM LIST

22-JUL-92

System Name	System Code	Safety Class	Seismic Category	Quality Class	Safe Shutdown?
ESSENTIAL CHILLED WATER SYSTEM	ECW				
125VDC AUXILIARY CONTROL POWER SYSTEM	EE				
120VAC VITAL I&C POWER SYSTEM	EF				
EMERGENCY FEEDWATER SYSTEM	EFW				
EXTRACTION STEAM SYSTEM	ESS	NNS	NS	2	
FUEL BUILDING VENTILATION SYSTEM	FBV				
EQUIPMENT & FLOOR DRAINAGE SYSTEM	FDS				
FUEL HANDLING SYSTEM	FHS				
FIRE PROTECTION SYSTEM	FPS				
GASEOUS WASTE MANAGEMENT SYSTEM	GWS				
HEATER DRAIN SYSTEM	HDS				
HYDROGEN MITIGATION SYSTEM	HMS				
HEATER VENTS	HV	NNS	NS	2	
INSTRUMENT AIR SYSTEM	IAS				
LIQUID WASTE MANAGEMENT SYSTEM	LWS				
MAIN CONDENSER SYSTEM	MCS				
MAIN STEAM SUPPLY SYSTEM	MSS	2	I	1	
MAIN VACUUM SYSTEM	MVS				
NORMAL CHILLED WATER SYSTEM	NCW				
NUCLEAR ANNEX & RADWASTE BUILDING VENTILATION SYST	NVS				
POOL COOLING & PURIFICATION SYSTEM	PCP				
REACTOR COOLANT SYSTEM	RCS				
PROCESS & EFFLUENT RADIATION MONITORING SYSTEM	RMS				
SERVICE AIR SYSTEM	SAS				
SHUTDOWN COOLING SYSTEM	SCS				
STEAM GENERATOR BLOWDOWN SYSTEM	SGB				
STEAM GENERATOR WET LAYUP SYSTEM	SGW				
SAFETY INJECTION SYSTEM	SIS				
SAMPLING SYSTEM	SS				
STATION SERVICE WATER SYSTEM	SSW				

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 2 - SYSTEM LIST

System Name	System Code	Safety Class	Seismic Category	Quality Class	Safe Shutdown?
REACTOR BUILDING SUBSPHERE VENTILATION SYSTEM	SVS				
SOLID WASTE MANAGEMENT SYSTEM	SWS				
STATION SERVICE WATER PUMP STRUCTURE VENT SYSTEM	SWV				
TURBINE BUILDING COOLING WATER SYSTEM	TCW				
TURBINE GENERATOR SYSTEM	TGS				
TURBINE BUILDING SERVICE WATER SYSTEM	TSW				
TURBINE BUILDING VENTILATION SYSTEM	TVS				
NO SYSTEM IDENTIFIED	ZNA				
UNIT MAIN POWER SYSTEM					
208/120VAC CONTROL POWER SYSTEM					
250VDC AUXILIARY POWER SYSTEM					
ALTERNATE AC SOURCE 125VDC POWER SYSTEM					

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 3 - EQUIPMENT BY FIRE AREA

21-JUL-92

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
1	I	Channel A Vital Instrument & Equipment Room	120VAC Distribution Center	125VDC Spare Battery Charger
			120VAC Inverter	APC
			120VAC Panelboard	CPC Cabinets
			125VDC Battery Charger	Incore/PAMI
			125VDC Distribution Center	Plant Protection Cabinets
			125VDC Panelboard	
			125VDC Vital Battery	
			480VAC MCC A	
			Auto Static Transfer Switch	
			Auto Transfer Switch	
			ESF-Component Control System	
			HVAC Recirculation Cooling Units	
			Inverter	
			MUX A	
			Manual Bypass Switch	
			Reactor Trip Switchgear	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
2	I	Channel C Vital Instrument & Equipment Room	120VAC Distribution Center 120VAC Inverter 120VAC Panelboard 125VDC Battery Charger 125VDC Distribution Center 125VDC Panelboard 125VDC Vital Battery Auto Static Transfer Switch Auto Transfer Switch CEAC Cabinet ESF-Component Control System HVAC Recirculation Cooling Units Inverter MUX C Manual Bypass Switch Reactor Trip Switchgear	125VDC Spare Battery Charger APC CPC Cabinets Plant Protection Cabinets
3	II	Channel B Vital Instrument & Equipment Room	120VAC Distribution Center 120VAC Panelboard 125VDC Battery Charger 125VDC Distribution Center 125VDC Panelboard 125VDC Vital Battery Auto Static Transfer Switch Auto Transfer Switch ESF-Component Control System HVAC Recirculation Cooling Units Inverter MCC B MUX B Manual Bypass Switch Reactor Trip Switchgear	125VDC Spare Battery Charger APC CPC Cabinets Incore/PAMI Plant Protection Cabinets

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
4	II	Channel D Vital Instrument & Equipment Room	120VAC Distribution Center 120VAC Inverter 120VAC Panelboard 125VDC Battery Charger 125VDC Distribution Center 125VDC Panelboard 125VDC Vital Battery Auto Static Transfer Switch Auto Transfer Switch CEAC Cabinet ESF-Component Control System HVAC Recirculation Cooling Units Inverter MUX D Manual Bypass Switch Reactor Trip Switchgear	125VDC Spare Battery Charger APC CPC Cabinets Plant Protection Cabinets
5	I	Maintenance Work Area		480VAC MCC X HVAC MUX X
6	II	Maintenance Work Area		480VAC MCC Y HVAC MUX X
7	I	Instrument Air Room	HVAC	
8	II	Instrument Air Room	HVAC	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
9	I	Component Cooling Water Pump Room 1A	Component Cooling Water Pump 1A HVAC Recirculation Cooling Unit	
10	I	Component Cooling Water Pump Room 1B	Component Cooling Water Pump 1B HVAC Recirculation Cooling Unit	
11	II	Component Cooling Water Pump Room 2B	Component Cooling Water Pump 2B HVAC Recirculation Cooling Unit	
12	II	Component Cooling Water Pump Room 2A	Component Cooling Water Pump 2A HVAC Recirculation Cooling Unit	
13	I	HVAC Chase		
14	I	Janitorial/Health Physics Storage/Work Area	CVCS Chemical Addition Package Charging Pump Miniflow Heat Exchanger 1 Chemical Addition Package Containment Cooler Condensate Pumps Containment Cooler Condensate Tanks Equipment Drains Sump Floor Drains Sump	480VAC MCC X MUX X

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 3 - EQUIPMENT BY FIRE AREA

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
15	I	HVAC Chase and Control Room Mechanical Room	480VAC MCC A Control Room Air Handling Unit Control Room HVAC Filter Control Room Mechanical Equip Coolirg Electrical Room Smoke Purge Fans HVAC Subsphere Supply Air Handling Unit HVAC Subsphere Supply Fan 1A HVAC Subsphere Supply Fan 1B MUX A Subsphere HVAC Exhaust Ductwork Subsphere HVAC Supply Ductwork Tech Support Center Smoke Purge Fans	480VAC MCC MUX X
16	II	HVAC Chase and Control Room Mech nical Room	480VAC MCC B Control Room Air Handling Unit Control Room HVAC Filter Control Room Mechanical Equip Cooling MUX B Smoke Purge Fans Subsphere HVAC Exhaust Ductwork Subsphere HVAC Supply Air Handling Unit Subsphere HVAC Supply Ductwork Subsphere HVAC Supply Fan 2A Subsphere HVAC Supply Fan 2B	480VAC MCC Y MUX Y
17	II	HVAC Chase		
18	I	HVAC Chase		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
19	B*	Stairway - Control Room to Vital Instrument & Equipment Room		
20	I	General Storage Area		
21	I	Cable Chase	Channel A Cable	
22	II	Cable Chase	Channel B Cable	
23	I	Elevator Shafts & Machine Room		Elevator Hoists Roof Mounted Fan
24	II	Pipe Chase	Piping	
25	II	Elevator Shaft & Machine Room		Elevator Hoist
26	II	General Storage Area		
27	II	Stairway		
28	II	HVAC Chase		
29	I	Stairway		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
30		Area Number Reserved		
31	II	Stairway	Roof Mounted Fan	
32	II	Personnel Access Aisle	CCW Chemical Addition Tank 2 Charging Pump Miniflow Heat Exchanger 2 HVAC Condensate Return Unit (EFW) HVAC Recirculation Cooling Unit Non-radioactive Floor Drain Sump Radioactive Floor Drain Sump Reactor Makeup Pump 1 Reactor Makeup Pump 2	Component Cooling Water Radiation Monito Component Cooling Water Sump Pump 2 Radioactive Floor Drain Pumps
33	I	Personnel Access Aisle	CCW Chemical Addition Tank 1 HVAC Condensate Return Unit (EFW) HVAC Recirculation Cooling Unit	Component Cooling Water Radiation Monito Component Cooling Water Sump Pump 1 Non-radioactive Floor Drain Sump Radioactive Floor Drain Sump
34	I	Motor Driven Emergency Feedwater Pump Room	HVAC Recirculation Cooling Unit Motor-Driven Emergency Feedwater Pump 1	
35	II	Motor Driven Emergency Feedwater Pump Room	HVAC Recirculation Cooling Unit Motor-Driven Emergency Feedwater Pump 2	
36	I	Turbine Driven Emergency Feedwater Pump Room	HVAC Recirculation Cooling Unit Turbine-Driven Emergency Feedwater Pump	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
37	II	Turbine Driven Emergency Feedwater Pump Room	HVAC Recirculation Cooling Unit Turbine-Driven Emergency Feedwater Pump	
38	I	Channel C Subsphere Area	480VAC MCC C Containment Spray Miniflow Heat Exchange HVAC Recirculation Cooling Unit MUX C Reactor Building Subsphere Sump Pump 1B Safety Injection Pump 1A	Containment Spray Heat Exchanger 1 Containment Spray Pump 1
39	II	Channel D Subsphere Area	480VAC MCC D Containment Spray Miniflow Heat Exchange HVAC Recirculation Cooling Unit MUX D Reactor Building Subsphere Sump Pump 2B Safety Injection Pump 2B	Containment Spray Heat Exchanger 2 Containment Spray Pump 2
40	II	Channel B Subsphere Area	480VAC MCC B HVAC Recirculation Cooling Unit MUX B Reactor Building Subsphere Sump Pump 2A Safety Injection Pump 2A Shutdown Cooling Heat Exchanger 2 Shutdown Cooling Miniflow Heat Exchanger Shutdown Cooling Pump 2	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Required for Safe Shutdown
41	I	Channel A Subsphere Area	480VAC MCC A	
			HVAC Recirculation Cooling Unit	
			MUX A	
			Reactor Building Subsphere Sump Pump 1A	
			Safety Injection Pump 1B	
			Shutdown Cooling Heat Exchanger 1	
			Shutdown Cooling Miniflow Heat Exchanger	
			Shutdown Cooling Pump 1	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
42	II	Emergency Diesel Generator Building 2	DG Building Sump Pump 2	
			DG Engine Air Turbocharger 1	
			DG Engine Clean Lube Oil Tank 2	
			DG Engine Exhaust Aftercooler 2	
			DG Engine Exhaust Silencer 2	
			DG Engine Intake Air Filter 2	
			DG Engine Lube Oil Cooler 2	
			DG Engine Lube Oil Filter 2	
			DG Engine Lube Oil Sump Tank Heater 2	
			DG Engine Lube Oil Transfer Pump 2	
			DG Engine Pre-Lube Oil Pump 2	
			DG Engine Starting Air Aftercooler 2	
			DG Engine Starting Air Compressor 1	
			DG Engine Starting Air Dryer 2	
			DG Engine Starting Air Filter/Dryer Unit	
			DG Engine Starting Air Moisture Separato	
			DG Engine Starting Air Receiver 2	
			DG Engine Starting Air Tank 2	
			DG Engine Used Lube Oil Tank 2	
			Emergency Diesel Generator 2	
			Engine Air Exhaust Silencer	
			Engine Air Intake & Exhaust	
			Engine Air Intake Silencer	
			Engine Cooling Water Coolers	
			Engine Cooling Water Pumps	
			Engine Cooling Water System	
			Fuel Oil Day Tank	
			Fuel Oil Day Tank	
			Fuel Oil Storage Tank	
			Fuel Oil System	
			Fuel Oil Transfer Pump	
			HVAC Dampers	
			HVAC Ductwork	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
42	II	Emergency Diesel Generator Building 2	HVAC Exhaust Fan 2 HVAC Supply Fan 2 Local Controls and Indicators MCC Multiplexors Remote Controls and Indicators	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
43	I	Emergency Diesel Generator Building 1	Building HVAC Dampers	
			DG Building Sump Pump 1	
			DG Engine Air Turbocharger 2	
			DG Engine Clean Lube Oil Tank 1	
			DG Engine Exhaust Aftercooler 1	
			DG Engine Exhaust Silencer 1	
			DG Engine Intake Air Filter 1	
			DG Engine Lube Oil Cooler 1	
			DG Engine Lube Oil Filter 1	
			DG Engine Lube Oil Sump Tank Heater 1	
			DG Engine Lube Oil Transfer Pump 1	
			DG Engine Pre-Lube Oil Pump 1	
			DG Engine Starting Air Aftercooler 1	
			DG Engine Starting Air Compressor 1	
			DG Engine Starting Air Dryer 1	
			DG Engine Starting Air Filter/Dryer Unit	
			DG Engine Starting Air Moisture Separato	
			DG Engine Starting Air Receiver 1	
			DG Engine Starting Air Tank 1	
			DG Engine Used Lube Oil Tank 1	
			Emergency Diesel Generator 1	
			Engine Air Exhaust Silencer	
			Engine Air Intake & Exhaust	
			Engine Air Intake Silencer	
			Fuel Oil Storage Tank	
			Fuel Oil System	
			Fuel Oil Transfer Pump	
			HVAC Dampers	
			HVAC Ductwork	
			HVAC Exhaust Fan 1	
			HVAC Supply Fan 1	
			Local Controls and Indicators	
			MCC	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
43	I	Emergency Diesel Generator Building 1	Multiplexors Remote Controls and Indicators	
44	II	CVCS Charging Pump Area	Charging Pump 2 HVAC Recirculation Cooling Unit	
45	I	CVCS Charging Pump Area	Charging Pump 1 HVAC Recirculation Cooling Unit	
46	I	Elevator Shaft & Machine Room		Elevator Hoists
47	I	Stairway		Roof Mounted Fan
48	I	HVAC Chase		
49	I	Pipe Chase		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
50	II	CVCS Area and Primary Chemistry Lab	Boric Acid Batching Strainer	480VAC MCC X
			Boric Acid Concentrator	480VAC MCC Y
			Boric Acid Concentrator Control Panel	MUX X
			Boric Acid Concentrator Instrument Panel	MUX Y
			Boric Acid Condensate IX	
			Boric Acid Condensate IX Strainer	
			Boric Acid Filter	
			Boric Acid Makeup Pump 1	
			Boric Acid Makeup Pump 2	
			Deborating IX	
			Equipment Drain Tank	
			Equipment Drains Sump	
			Floor Drains Sump	
			Fuel Pool Purification IX 1	
			Fuel Pool Purification IX 2	
			Gas Stripper	
			Gas Stripper Panel	
			Holdup Pump 1	
			Holdup Pump 2	
			Ion Exchanger Drain Header Strainer	
			Pool Filters	
			Pre-Holdup IX	
			Purification Filter 1	
			Purification Filter 2	
			Purification Filter 3	
			Purification Filter 4	
			Purification IX 1	
			Purification IX 2	
			Purification IX 3	
			Purification IX 4	
			RD Pumps	
			Reactor Drain Filter	
			Reactor Drain Pump 1	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
50	II	CVCS Area and Primary Chemistry Lab	Reactor Drain Pump 2 Reactor Makeup Water Filter Resin Sluice Pumps Sampling Panels Seal Injection Filters Spent Resin Sluice Tanks	
51	II	Elevator Shafts and Machine Room		Elevator Hoists Roof Mounted Fan
52		Area Number Reserved		
53	II	Channel B Personnel Access Aisle	Channel B Cable to Subsphere	
54	I	Channel A Personnel Access Aisle	Channel A Cable to Subsphere	
55	II	Channel D Personnel Access Aisle	Channel D Cable to Subsphere HVAC	
56	I	Channel C Personnel Access Aisle	Channel C Cable to Subsphere HVAC	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
57	I	Essential Chilled Water Area	Chilled Water Pumps Chiller Essential Heat Exchanger Expansion Tank HVAC HVAC Recirculation Cooling Unit MUX A	Chemical Addition Tank
58	II	Essential Chilled Water Area	Chilled Water Pumps Chiller Essential Heat Exchanger Expansion Tank HVAC HVAC Recirculation Cooling Unit MUX B	Chemical Addition Tank

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
59	B*	Containment	CEA Change Platform	Personnel Air Lock
			CEA Handling Tools	
			CEDM Cooling Unit 1	
			CEDM Cooling Unit 2	
			Channel A Excore Detectors	
			Channel B Excore Detectors	
			Channel C Excore Detectors	
			Channel D Excore Detectors	
			Closure Head Lift Rig	
			Containment Cleanup Filter Unit 1	
			Containment Cleanup Filter Unit 2	
			Containment Cooling Ventilation Unit 1A	
			Containment Cooling Ventilation Unit 1B	
			Containment Cooling Ventilation Unit 2A	
			Containment Cooling Ventilation Unit 2B	
			Control Element Assemblies	
			Control Element Drive Mechanism	
			Core Barrel Lifting Rig	
			Core Support Structure	
			Feedwater Isolation Valve 1A	
			Feedwater Isolation Valve 1B	
			Feedwater Isolation Valve 2A	
			Feedwater Isolation Valve 2B	
			Fuel Assemblies	
			Fuel Transfer System	
			Fuel Transfer System Transfer Carriage	
			Fuel Transfer System Upending Machine	
			Fuel Transfer Tube, Valve, Stand	
			Fuel transfer Tube Blind Flange	
			HVAC Distribution Header 1	
			HVAC Distribution Header 2	
			Heated Junction Thermocouple Pressure Ho	
			Heated Junction Thermocouple Probe Assem	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
59	B*	Containment	ICI Cable Tray Support Frame	
			ICI Guide Tubes	
			ICI Holding Frame	
			ICI Insertion & Removal Tools	
			ICI Seal Housing	
			ICI Seal Table	
			In-containment Refueling Water Tank	
			In-core Instrumentation & CEA Cutter	
			Incontainment Refueling Water Storage Ta	
			Incore Instrumentation Seal Table	
			Letdown Heat Exchanger	
			Letdown Strainer	
			Long & Short Fuel Handling Tools	
			Pressurizer	
			Pressurizer Ventilation Fans	
			RCP Motor Oil Drain Tank I	
			RCP Motor Oil Drain Tank II	
			RCP Motor Oil Drain Tank Pump I	
			RCP Motor Oil Drain Tank Pump II	
			Reactor Cavity Cooling Ducts	
			Reactor Cavity Cooling Fans	
			Reactor Coolant Gas Vents	
			Reactor Coolant Pump 1A	
			Reactor Coolant Pump 1B	
			Reactor Coolant Pump 2A	
			Reactor Coolant Pump 2B	
			Reactor Drain Tank	
			Reactor Vessel	
			Refueling Machine	
			Refueling Pool Seal	
			Regenerative Heat Exchanger	
			Safety Injection Tank 1A	
			Safety Injection Tank 1B	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
59	B*	Containment	Safety Injection Tank 2A Safety Injection Tank 2B Steam Generator 1 Steam Generator 2 Steam Line Isolation Valve 1A Steam Line Isolation Valve 2A Underwater Television Upper Guide Structure Lifting Rig	
60	II	General Storage Area		
61	I	Normal Chilled Water Room		MUX X
62	II	Normal Chilled Water Room		MUX Y
63	I	Channel C Cable Chase	Channel C Cable	
64	II	Channel D Cable Chase	Channel D Cable	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
65	I	Channel A Equipment Room	120VAC Auto Static Transfer Switch 120VAC Distribution Center 120VAC Inverter 120VAC Manual Bypass Switch 120VAC Manual Transfer Switch 120VAC Panelboard 125VDC Battery 125VDC Battery Charger 125VDC Distribution Center 125VDC Panelboard 4160V/480VAC LDCR Transformer (Ch A) 4160V/480VAC LDCR Transformer (Standby) 4160VAC Switchgear (Ch A) (Ess Power Eq) 480VAC Loadcenter (Ch A) 480VAC Loadcenter (Standby) 480VAC MCC (Ch A) HVAC Recirculation Cooling Units MUX A	125VDC Spare Battery Charger

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
66	II	Channel B Equipment Room	120VAC Auto Static Transfer Switch 120VAC Distribution Center 120VAC Inverter 120VAC Manual Bypass Switch 120VAC Manual Transfer Switch 120VAC Panelboard 125VDC Battery 125VDC Battery Charger 125VDC Distribution Center 125VDC Panelboard 4160/480VAC LDCR Transformer (Ch B) 4160/480VAC LDCR Transformer (Ch D) 4160/480VAC LDCR Transformer (Standby) 4160VAC Switchgear (Ch B) 4160VAC Switchgear (Ch D) 480VAC Loadcenter (Ch B) 480VAC Loadcenter (Ch D) 480VAC Loadcenter (Standby) 480VAC MCC (Ch B) 480VAC MCC (Ch D) HVAC Recirculation Cooling Units MUX B	125VDC Spare Battery Charger
67	I	General Storage Area		
68	I	Equipment Access Shaft		
69	B*	Remote Shutdown Panel	Remote Shutdown Panel	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
70	I	Switchgear Room	4160VAC Switchgear (Ch C) 480VAC Switchgear	
71	II	Switchgear Room	4160VAC Switchgear (Ch D) 480VAC Switchgear	
72	II	Equipment Access Shaft		
73	I	Channel C Equipment Room	4160/480VAC LDCR Transformer (Ch C) 480VAC Loadcenter (Ch C) 480VAC MCC (Ch C) HVAC MUX C	
74	II	Channel D Equipment Room	4160/480VAC LDCR Transformers (Ch D) 480VAC Loadcenter (Ch D) 480VAC MCC (Ch D) HVAC MUX D	
75	I	Valve Maintenance Shop & Hydrogen Recombiner Area	Hydrogen Recombiner Control Panel 1	Hydrogen Recombiner 1
76	II	CVCS Area Storage & Hydrogen Recombiner Area	Hydrogen Recombiner Control Panel 2	Hydrogen Recombiner 2
77	II	Fuel Pool Cooling Area	Fuel Pool Cooling Heat Exchanger 2 Fuel Pool Cooling Pump 2	HVAC Recirculation Cooling Unit

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
78	II	Valve Gallery	Piping Valves	
79	I	Valve Gallery	Piping Valves	
80	I	Fuel Pool Cooling Area	Fuel Pool Cooling Heat Exchanger 1 Fuel Pool Cooling Pump 1	HVAC Recirculation Cooling Unit
81	NA	Pool Purification Area and Pipe Chase	Pool Strainer 1 Pool Strainer 2	Pool Purification Pump 1 Pool Purification Pump 2 Seal Injection Heat Exchanger
82	I	Emergency Feedwater Tank Room	Emergency Feedwater Tank 1A Emergency Feedwater Tank 1B	
83	II	Emergency Feedwater Tank Room	Emergency Feedwater Tank 2A Emergency Feedwater Tank 2B	
84	I	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room	Atmospheric Dump Valves MUX A Main Steam Isolation Bypass Valves Main Steam Isolation Valves Main Steam Safety Valves	MUX X

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
85	II	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room	Atmospheric Dump Valves MUX B Main Steam Isolation Bypass Valves Main Steam Isolation Valves Main Steam Safety Valves	MUX Y
86		Area Number Reserved		
87		Area Number Reserved		
88		Area Number Reserved		
89	I	General Storage Area		
90	I	Personnel Access Aisle	Channel A Cable to Subsphere Channel C Cable to Subsphere HVAC Recirculation Cooling Unit	
91	II	Radiation Access Control and Division II Personnel Access Area	Channel B Cable to Subsphere Channel D Cable to Subsphere HVAC Recirculation Cooling Unit	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
92	I	Channel A Non-Essential Equipment Room	(X) 125 VDC Battery	(X) Field Mount MUX Wall Encl.
			(X) Process CCS	120VAC Distribution Center Spare Charger
			125VDC Battery Charger	DC Distribution Center Spare Charger
			125VDC Distribution Center	
			13.8kVAC RCP Switchgear	
			208/120VAC I&C & DPS Dist Panel	
			480VAC MCCs	
			480VAC MCCs	
			Auto Static Transfer Switch	
			Aux Control Voltage Regulator	
			Aux Power Panelboard	
			CEDM MG	
			CEDM MG Control Panel	
			CEDM Power Control Cabinets	
			CEDM Power Control Cabinets	
			Computer Inverter	
			DIAS	
			HVAC Recirculation Cooling Units	
			Inverter	
			Manual Bypass Switch	
			Manual Transfer Switch	
			PCS Logic Cabinets	
			Reflash Module Panel	
			Regulated Panelboard	
			Regulated Power Transformer	
			Voltage Regulator	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
93	II	Channel B Non-Essential Equipment Room	(Y) 125VDC Battery	(Y) Field MUX Wall-Mount Enclosure
			(Y) Process CCS	120VAC Distribution Center Spare Charger
			125VDC Battery Charger	Aux Control Standby Battery Charger
			125VDC Distribution Center	DC Distribution Center Spare Charger
			13.8KVAC RCP Switchgear	NIMS
			208/120VAC I&C & DPS Distribution Panel	
			480VAC MCC	
			480VAC MCC	
			APC	
			Auto Static Transfer Switch	
			Aux Control Voltage Regulator	
			Aux Power Panelboard	
			CEDM MG	
			CEDM MG Control Panel	
			Computer Inverter	
			HVAC Recirculation Cooling Units	
			Inverter	
			Manual Bypass Switch	
			Manual Transfer Switch	
			Reflash Module Panel	
			Regualted Power Transformer	
			Regulated Panelboard	
			Voltage Regulator	
94	I	Security Equipment & CAS		HVAC Recirculation Cooling Unit
95	I	Penetration Room A	Field MUX Wall-mount Enclosure (Ch A)	Core Protection Calculator MUX Cab
			HVAC Recirculation Cooling Units	Ex-core Neutron Monitoring Assy
			Reed Switch Position Transmitter-MUX Cab	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
96	II	Penetration Room B	Field MUX Wall-Mount Enclosure (Ch B) HVAC Recirculation Cooling Units Reed Switch Position Transmitter MUX Cab	Core Protection Calculator MUX Cab Ex-core Neutron Monitoring Assy
97	I	Penetration Room C	Field MUX Wall-Mount Enclosure (Ch C) HVAC Recirculation Cooling Units Reed Switch Position Transmitter MUX Cab	Ex-core Neutron Monitoring Assy
98	I	Penetration Room D	Field MUX Wall-mount Enclosure (Ch D) HVAC Recirculation Cooling Units Reed Switch Position Transmitter MUX Cab	Ex-core Neutron Monitoring Assy
99		Area Number Reserved		
100		Area Number Reserved		
101	I	Channel C Non-Essential Equipment Room	480VAC MCC 480VAC MCC	(X) Field MUX Wall-mount Enclosure
102	II	Channel D Non-Essential Equipment Room	480VAC MCC 480VAC MCC	(Y) Field MUX Wall-mount Enclosure
103	I	Fuel Pool Storage Area		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
104	I	Electrical Switchgear Room	13.8KVAC RCP Switchgear 480VAC MCC C MUX C	
105	II	HVAC Chase		
106	I	Fue' Handling Area	New Fuel Elevator New Fuel Racks Spent Fuel Handling Machine Spent Fuel Pool Skimmer Spent Fuel Racks	Fuel Transfer Machine Control Console Fuel Transfer Machine Hydraulic Power Un MUX X New Fuel Elevator Winch Assembly
107	I	Fuel Area Storage		
108	I	Fuel Area Storage Room		
109	I	Fuel Area Storage Room		
110	II	Resin Storage Area		
111	II	Equipment Decontamination Area		
112	II	Electrical Switchgear Room	13.8KVAC RCP Switchgear 480VAC MCC D MUX D	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
113	II	Hot Machine Shop	480VAC MCC	(Y) Field MUX Wall-mount Enclosure
114	II	Stairway		
115	II	General Storage Area		
116		Area Number Reserved		
117	II	Tool Room	Channel B Cable	
118	II	Hot Tool Crib		HVAC Recirculation Cooling Unit
119	B*	Emergency Supply Storage Room		
120		Area Number Reserved		
121	B*	Document Room		
122	I	Storage Area	Channel A Cable	Comp Rm HVAC Recirculation Cooling Units

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 3 - EQUIPMENT BY FIRE AREA

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
123	B*	Control Room and Technical Services Center	Auxiliary Consoles Control Panels Control Room Components and Consoles Control Room Supervisor Console Master Control Console Transfer Switches	
124	B*	Computer Room		CPU Number 1 CPU Number 2 Magnetic Disk Storage Rack Magnetic Tape Storage Rack System Consoles
125	I	Janitorial Storage Room		
126		Area Number Reserved		
127	I	Storage Area		
128	I	Subsphere Exhaust Room	Fans	
129		Area Number Reserved		
130	II	vCT,Boric Acid Tank & Drum Storage Area	Boric Acid Batching Tank Volume Control Tank	

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
131	II	Personnel Decontamination Area and Access Aisle	HVAC Recirculation Cooling Unit	
132	II	Hot Instrument Shop		
133	II	Subsphere Exhaust Room		Fans
134		Area Number Reserved		
135	I	Personnel Access Aisle	480VAC MCC A HVAC Recirculation Cooling Unit MUX A	480VAC MCC X MUX X
136	II	Personnel Access Aisle	480VAC MCC B HVAC Recirculation Cooling Unit MUX B	480VAC MCC Y MUX Y
137	II	Personnel Access Aisle		
138	II	Operational Support Center AMU Room	OSC AMU	
139	B*	Operational Support Center		
140	B*	Technical Support Area Conference Room		

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 3 - EQUIPMENT BY FIRE AREA

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
141		Area Number Reserved		
142	B*	Technical Service Center Mechanical Room	TSC Mechanical Room Cooling Unit Tech Support Center Air Handling Units Tech Support Center Filters	
143		Area Number Reserved		
144	I	Nuclear Annex HVAC Mechanical Room	Fans Nuclear Annex Supply Unit	
145	I	Annulus HVAC Mechanical Room	HVAC Recirculation Cooling Unit	Annulus Exhaust Unit Fans
146	I	Personnel Access Aisle		
147	II	Personnel Access Aisle	HVAC Recirculation Cooling Unit	
148	II	Nuclear Annex HVAC Exhaust Mechanical Room I		Fans Nuclear Annex Exhaust Unit
149	I	Nuclear Annex HVAC Exhaust Mechanical Room II		Fans Nuclear Annex Exhaust Unit

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
150	II	Nuclear Annex HVAC Supply Mechanical Room	Nuclear Annex Supply Unit	Fans
151	II	Nuclear Annex HVAC Mechanical Room	HVAC Recirculation Cooling Unit	
152	II	Instrument Calibration Shop		
153	II	Annulus HVAC Mechanical Room		Annulus Exhaust Unit Fan
154		Area Number Reserved		
155		Area Number Reserved		
156	II	Hot Tool Crib		HVAC Recirculation Cooling Unit
157	I	Hot Tool Crib		HVAC Recirculation Cooling Unit
158	II	Personnel Decon, Storage, Laydown & Work Area		HVAC Recirculation Cooling Units
159	I	Personnel Access Aisle	HVAC Recirculation Cooling Unit	
160		Area Number Reserved		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
161	I	Personnel Access Aisle		
162	I	Fuel Pool HVAC Exhaust Mechanical Room		Fans Fuel Pool Exhaust Unit
163	II	HVAC Mechanical Room		Hi Purge Exhaust Unit Hi Purge Supply Unit Lo Purge Exhaust Unit Lo Purge Supply Unit
164		Area Number Reserved		
165	I	Nuclear Annex HVAC Mechanical Room		Fans Nuclear Annex Exhaust Unit
166	I	Component Cooling Water Surge Tank Room	Component Cooling Water Surge Tank 1	
167	II	Component Cooling Water Surge Tank Room	Component Cooling Water Surge Tank 2	
168	II	Fuel Pool HVAC Supply & Exhaust Area		Fans Fuel Pool Exhaust Unit Fuel Pool Supply Unit
169		Area Number Reserved		

Fire Area	Div	Description	Equipment Required for Safe Shutdown	Equipment Not Required for Safe Shutdown
170		Area Number Reserved		
171		Area Number Reserved		
172		Area Number Reserved		
173		Area Number Reserved		
174		Area Number Reserved		
175	B*	Personnel Access Aisle (tentative assignment)		

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 4 - ADJACENT FIRE AREAS

22-JUL-92

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
1	I	Channel A Vital Instrument & Equipment Room	50/	B-E	17-2	19	Stairway - Control Room to Vital Instrument & Equipment Room
						2	Channel C Vital Instrument & Equipment Room
						21	Cable Chase
						25	Elevator Shafts & Machine Room
						3	Channel B Vital Instrument & Equipment Room
						33	Personnel Access Aisle
						65	Channel A Equipment Room
2	I	Channel C Vital Instrument & Equipment Room	50/	E-H	18-2	1	Channel A Vital Instrument & Equipment Room
						15	HVAC Chase and Control Room Mechanical Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						21	Cable Chase
						33	Personnel Access Aisle
						41	Channel A Subsphere Area
						63	Channel C Cable Chase
						65	Channel A Equipment Room
3	II	Channel B Vital Instrument & Equipment Room	50/	B-E	12-1	1	Channel A Vital Instrument & Equipment Room
						22	Cable Chase
						32	Personnel Access Aisle
						4	Channel D Vital Instrument & Equipment Room
						51	Elevator Shafts and Machine Room
						66	Channel B Equipment Room
4	II	Channel D Vital Instrument & Equipment Room	50/	E-H	12-1	16	HVAC Chase and Control Room Mechanical Room
						22	Cable Chase
						3	Channel B Vital Instrument & Equipment Room
						32	Personnel Access Aisle
						40	Channel B Subsphere Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates		Adjacent Fire Areas	
4	II	Channel D Vital Instrument & Equipment Room	50/	E-H 12-1	64	Channel D Cable Chase
					66	Channel B Equipment Room
5	I	Maintenance Work Area	50/	E-H 23-2	33	Personnel Access Aisle
					61	Normal Chilled Water Room
					7	Instrument Air Room
6	II	Maintenance Work Area	50/	E-H 9-11	32	Personnel Access Aisle
					62	Normal Chilled Water Room
					8	Instrument Air Room
7	I	Instrument Air Room	50/	C-E 23-2	20	General Storage Area
					33	Personnel Access Aisle
					5	Maintenance Work Area
8	II	Instrument Air Room	50/	C-E 9-11	26	General Storage Area
					32	Personnel Access Aisle
					58	Essential Chilled Water Area
					6	Maintenance Work Area
9	I	Component Cooling Water Pump Room 1A	50/	1A-K 24-2	10	Component Cooling Water Pump Room 1B
					33	Personnel Access Aisle
					43	Emergency Diesel Generator Building 1
					82	Emergency Feedwater Tank Room
10	I	Component Cooling Water Pump Room 1B	50/	1A-K 23-2	33	Personnel Access Aisle
					43	Emergency Diesel Generator Building 1
					82	Emergency Feedwater Tank Room
					9	Component Cooling Water Pump Room 1A
11	II	Component Cooling Water Pump Room 2B	50/	1A-K 10-1	12	Component Cooling Water Pump Room 2A

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
11	II	Component Cooling Water Pump Room 2B	50/ 1A-K 10-1	32	Personnel Access Aisle
				42	Emergency Diesel Generator Building 2
				83	Emergency Feedwater Tank Room
12	II	Component Cooling Water Pump Room 2A	50/ 1A-K 9-10	11	Component Cooling Water Pump Room 2B
				32	Personnel Access Aisle
				42	Emergency Diesel Generator Building 2
				83	Emergency Feedwater Tank Room
13	I	HVAC Chase	50/170 Q-R 18-1	104	Electrical Switchgear Room
				106	Fuel Handling Area
				108	Fuel Area Storage Room
				109	Fuel Area Storage Room
				128	Subsphere Exhaust Room
				135	Personnel Access Aisle
				14	Janitorial/Health Physics Storage/Work Area
				144	Nuclear Annex HVAC Mechanical Room
				146	Personnel Access Aisle
				159	Personnel Access Aisle
				161	Personnel Access Aisle
				162	Fuel Pool HVAC Exhaust Mechanical Room
				33	Personnel Access Aisle
				56	Channel C Personnel Access Aisle
				81	Pool Purification Area and Pipe Chase
				90	Personnel Access Aisle
14	I	Janitorial/Health Physics Storage/Work Area	50/ Q-U 17-2	13	HVAC Chase
				156	Hot Tool Crib
				33	Personnel Access Aisle
				43	Emergency Diesel Generator Building 1
				45	CVCS Charging Pump Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
14	I	Janitorial/Health Physics Storage/Work Area	50/	Q-U	17-2	75	Valve Maintenance Shop & Hydrogen Recombiner Area
						81	Pool Purification Area and Pipe Chase
15	I	HVAC Chase and Control Room Mechanical Room	50/130	F-G	20-2	125	Janitorial Storage Room
						131	Personnel Decontamination Area and Access Aisle
						2	Channel C Vital Instrument & Equipment Room
						41	Channel A Subsphere Area
						59	Containment
						65	Channel A Equipment Room
						79	Valve Gallery
						92	Channel A Non-Essential Equipment Room
16	II	HVAC Chase and Control Room Mechanical Room	50/130	F-G	13-1	118	Hot Tool Crib
						136	Personnel Access Aisle
						139	Operational Support Center
						4	Channel D Vital Instrument & Equipment Room
						40	Channel B Subsphere Area
						59	Containment
						66	Channel B Equipment Room
						68	Equipment Access Shaft
						93	Channel B Non-Essential Equipment Room
17	II	HVAC Chase	50/170	P	15-1	102	Channel D Non-Essential Equipment Room
						136	Personnel Access Aisle
						147	Personnel Access Aisle
						153	Annulus HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						163	HVAC Mechanical Room
						32	Personnel Access Aisle
						39	Channel D Subsphere Area
						55	Channel D Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
17	II	HVAC Chase	50/170	P	15-1	59	Containment
						74	Channel D Equipment Room
						77	Fuel Pool Cooling Area
						91	Radiation Access Control and Division II Personnel Access Area
						98	Penetration Room D
18	I	HVAC Chase	50/170	P	18-1	101	Channel C Non-Essential Equipment Room
						135	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						146	Personnel Access Aisle
						159	Personnel Access Aisle
						161	Personnel Access Aisle
						165	N[illegible]ear Annex HVAC Mechanical Room
						33	Pe[illegible] Access Aisle
						38	Cha[illegible] Subsphere Area
						56	Channel C Personnel Access Aisle
						59	Containment
						73	Channel C Equipment Room
						80	Fuel Pool Cooling Area
						90	Personnel Access Aisle
						9[illegible]	Penetration Room C
19	B*	Stairway - Control Room to Vital Instrument & Equi	50/115	D-E	18-1	1	Channel A Vital Instrument & Equipment Room
						122	Storage Area
						123	Control Room and Technical Services Center
						124	Computer Room
						142	Technical Service Center Mechanical Room
						15	HVAC Chase and Control Room Mechanical Room
						2	Channel C Vital Instrument & Equipment Room
						63	Channel C Cable Chase

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
19	B*	Stairway - Control Room to Vital Instrument & Equi	50/115	D-E	18-1	65	Channel A Equipment Room
						69	Remote Shutdown Panel
						92	Channel A Non-Essential Equipment Room
20	I	General Storage Area	50/	B-C	24-2	29	Stairway
						33	Personnel Access Aisle
						67	General Storage Area
						7	Instrument Air Room
21	I	Cable Chase	50/91	E-F	17-1	1	Channel A Vital Instrument & Equipment Room
						121	Document Room
						123	Control Room and Technical Services Center
						2	Channel C Vital Instrument & Equipment Room
						22	Cable Chase
						41	Channel A Subsphere Area
						59	Containment
						63	Channel C Cable Chase
						65	Channel A Equipment Room
						69	Remote Shutdown Panel
						79	Valve Gallery
						92	Channel A Non-Essential Equipment Room
						95	Penetration Room A
22	II	Cable Chase	50/91	E-F	16-1	119	Emergency Supply Storage Room
						21	Cable Chase
						3	Channel B Vital Instrument & Equipment Room
						4	Channel D Vital Instrument & Equipment Room
						40	Channel B Subsphere Area
						64	Channel D Cable Chase
						66	Channel B Equipment Room
						78	Valve Gallery

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
22	II	Cable Chase	50/91	E-F	16-1	93	Channel B Non-Essential Equipment Room
						96	Penetration Room B
23	I	Elevator Shafts & Machine Room	50/146	B-C	22-2	1	Channel A Vital Instrument & Equipment Room
						131	Personnel Decontamination Area and Access Aisle
						140	Technical Support Area Conference Room
						29	Stairway
						33	Personnel Access Aisle
						54	Channel A Personnel Access Aisle
						90	Personnel Access Aisle
24	II	Pipe Chase	50/170	N-O	11-1	136	Personnel Access Aisle
						153	Annulus HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						167	Component Cooling Water Surge Tank Room
						31	Stairway
						32	Personnel Access Aisle
						42	Emergency Diesel Generator Building 2
						55	Channel D Personnel Access Aisle
						91	Radiation Access Control and Division II Personnel Access Area
25	II	Elevator Shaft & Machine Room	50/170	P	11-1	136	Personnel Access Aisle
						147	Personnel Access Aisle
						158	Personnel Decon, Storage, Laydown & Work Area
						31	Stairway
						32	Personnel Access Aisle
						42	Emergency Diesel Generator Building 2
						55	Channel D Personnel Access Aisle
						91	Radiation Access Control and Division II Personnel Access Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
26	II	General Storage Area	50/	B-C	9-10	27	Stairway
						60	General Storage Area
						8	Instrument Air Room
27	II	Stairway	50/146	B	10-1	115	General Storage Area
						131	Personnel Decontamination Area and Access Aisle
						137	Personnel Access Aisle
						26	General Storage Area
						32	Personnel Access Aisle
						51	Elevator Shafts and Machine Room
						53	Channel B Personnel Access Aisle
						60	General Storage Area
						91	Radiation Access Control and Division II Personnel Access Area
28	II	HVAC Chase	50/170	Q-R	15-1	110	Resin Storage Area
						112	Electrical Switchgear Room
						130	VCT,Boric Acid Tank & Drum Storage Area
						133	Subsphere Exhaust Room
						136	Personnel Access Aisle
						147	Personnel Access Aisle
						148	Nuclear Annex HVAC Exhaust Mechanical Room I
						158	Personnel Decon, Storage, Laydown & Work Area
						163	HVAC Mechanical Room
						32	Personnel Access Aisle
						44	CVCS Charging Pump Area
						50	CVCS Area and Primary Chemistry Lab
						55	Channel D Personnel Access Aisle
						71	Switchgear Room
						91	Radiation Access Control and Division II Personnel Access Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
29	I	Stairway	50/146	B	23-2	131	Personnel Decontamination Area and Access Aisle
						140	Technical Support Area Conference Room
						20	General Storage Area
						23	Elevator Shafts & Machine Room
						33	Personnel Access Aisle
						54	Channel A Personnel Access Aisle
						67	General Storage Area
						89	General Storage Area
						90	Personnel Access Aisle
30		Area Number Reserved	/				
31	II	Stairway	50/170	O-P	11-1	136	Personnel Access Aisle
						147	Personnel Access Aisle
						153	Annulus HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						167	Component Cooling Water Surge Tank Room
						24	Pipe Chase
						25	Elevator Shaft & Machine Room
						32	Personnel Access Aisle
						42	Emergency Diesel Generator Building 2
						55	Channel D Personnel Access Aisle
						91	Radiation Access Control and Division II Personnel Access Area
32	II	Personnel Access Aisle	50/	C-T	9-17	11	Component Cooling Water Pump Room 2B
						12	Component Cooling Water Pump Room 2A
						14	Janitorial/Health Physics Storage/Work Area
						169	Area Number Reserved
						17	HVAC Chase

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas
32	II	Personnel Access Aisle	50/ C-T 9-17	24 Pipe Chase
				25 Elevator Shaft & Machine Room
				26 General Storage Area
				27 Stairway
				28 HVAC Chase
				3 Channel B Vital Instrument & Equipment Room
				31 Stairway
				33 Personnel Access Aisle
				35 Motor Driven Emergency Feedwater Pump Room
				37 Turbine Driven Emergency Feedwater Pump Room
				39 Channel D Subsphere Area
				4 Channel C Vital Instrument & Equipment Room
				40 Channel B Subsphere Area
				42 Emergency Diesel Generator Building 2
				50 CVCS Area and Primary Chemistry Lab
				51 Elevator Shafts and Machine Room
				53 Channel B Personnel Access Aisle
				55 Channel D Personnel Access Aisle
				6 Maintenance Work Area
				71 Switchgear Room
				72 Equipment Access Shaft
				74 Channel D Equipment Room
				8 Instrument Air Room
				83 Emergency Feedwater Tank Room
33	I	Personnel Access Aisle	50/ C-R 17-2	1 Channel A Vital Instrument & Equipment Room
				10 Component Cooling Water Pump Room 1B
				13 HVAC Chase
				14 Janitorial/Health Physics Storage/Work Area
				18 HVAC Chase
				2 Channel C Vital Instrument & Equipment Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
33	I	Personnel Access Aisle	50/	C-R	17-2	20	General Storage Area
						23	Elevator Shafts & Machine Room
						29	Stairway
						32	Personnel Access Aisle
						34	Motor Driven Emergency Feedwater Pump Room
						36	Turbine Driven Emergency Feedwater Pump Room
						38	Channel C Subsphere Area
						41	Channel A Subsphere Area
						43	Emergency Diesel Generator Building 1
						45	CVCS Charging Pump Area
						46	Elevator Shaft & Machine Room
						47	Stairway
						48	HVAC Chase
						49	Pipe Chase
						5	Maintenance Work Area
						54	Channel A Personnel Access Aisle
						68	Equipment Access Shaft
						7	Instrument Air Room
						70	Switchgear Room
						73	Channel C Equipment Room
						82	Emergency Feedwater Tank Room
						9	Component Cooling Water Pump Room 1A
34	I	Motor Driven Emergency Feedwater Pump Room	50/	K-M	21-2	33	Personnel Access Aisle
						36	Turbine Driven Emergency Feedwater Pump Room
						38	Channel C Subsphere Area
						80	Fuel Pool Cooling Area
35	II	Motor Driven Emergency Feedwater Pump Room	50/	K-M	12-1	32	Personnel Access Aisle
						37	Turbine Driven Emergency Feedwater Pump Room
						39	Channel D Subsphere Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
35	II	Motor Driven Emergency Feedwater Pump Room	50/	K-M	12-1	77	Fuel Pool Cooling Area
36	I	Turbine Driven Emergency Feedwater Pump Room	50/	I-K	21-2	33	Personnel Access Aisle
						34	Motor Driven Emergency Feedwater Pump Room
						41	Channel A Subsphere Area
						79	Valve Gallery
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
37	II	Turbine Driven Emergency Feedwater Pump Room	50/	I-K	12-1	32	Personnel Access Aisle
						35	Motor Driven Emergency Feedwater Pump Room
						40	Channel B Subsphere Area
						78	Valve Gallery
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
38	I	Channel C Subsphere Area	50/	K-P	17-2	18	HVAC Chase
						33	Personnel Access Aisle
						34	Motor Driven Emergency Feedwater Pump Room
						39	Channel D Subsphere Area
						41	Channel A Subsphere Area
						59	Containment
						80	Fuel Pool Cooling Area
39	II	Channel D Subsphere Area	50/	K-O	12-1	17	HVAC Chase
						32	Personnel Access Aisle
						35	Motor Driven Emergency Feedwater Pump Room
						38	Channel C Subsphere Area
						40	Channel B Subsphere Area
						59	Containment
						77	Fuel Pool Cooling Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
40	II	Channel B Subsphere Area	50/	F-K	12-1	16	HVAC Chase and Control Room Mechanical Room
						22	Cable Chase
						32	Personnel Access Aisle
						37	Turbine Driven Emergency Feedwater Pump Room
						39	Channel D Subsphere Area
						4	Channel D Vital Instrument & Equipment Room
						41	Channel A Subsphere Area
						59	Containment
						78	Valve Gallery
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
41	I	Channel A Subsphere Area	50/	F-K	17-2	15	HVAC Chase and Control Room Mechanical Room
						2	Channel C Vital Instrument & Equipment Room
						21	Cable Chase
						33	Personnel Access Aisle
						36	Turbine Driven Emergency Feedwater Pump Room
						38	Channel C Subsphere Area
						40	Channel B Subsphere Area
						59	Containment
						79	Valve Gallery
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
42	II	Emergency Diesel Generator Building 2	50/70	Q-K	9-11	11	Component Cooling Water Pump Room 2B
						113	Hot Machine Shop
						12	Component Cooling Water Pump Room 2A
						24	Pipe Chase
						25	Elevator Shaft & Machine Room
						31	Stairway
						32	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
42	II	Emergency Diesel Generator Building 2	50/70	Q-K	9-11	55	Channel D Personnel Access Aisle
						76	CVCS Area Storage & Hydrogen Recombiner Area
						83	Emergency Feedwater Tank Room
						91	Radiation Access Control and Division II Personnel Access Area
43	I	Emergency Diesel Generator Building 1	50/70	K-Q	23-2	10	Component Cooling Water Pump Room 1B
						103	Fuel Pool Storage Area
						14	Janitorial/Health Physics Storage/Work Area
						33	Personnel Access Aisle
						46	Elevator Shaft & Machine Room
						47	Stairway
						48	HVAC Chase
						49	Pipe Chase
						56	Channel C Personnel Access Aisle
						75	Valve Maintenance Shop & Hydrogen Recombiner Area
						82	Emergency Feedwater Tank Room
						9	Component Cooling Water Pump Room 1A
						90	Personnel Access Aisle
44	II	CVCS Charging Pump Area	50/	R-T	15-1	28	HVAC Chase
						32	Personnel Access Aisle
						50	CVCS Area and Primary Chemistry Lab
45	I	CVCS Charging Pump Area	50/	R-T	19-2	14	Janitorial/Health Physics Storage/Work Area
						33	Personnel Access Aisle
						81	Pool Purification Area and Pipe Chase
46	I	Elevator Shaft & Machine Room	50/170	P	22-2	135	Personnel Access Aisle
						146	Personnel Access Aisle
						159	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
46	I	Elevator Shaft & Machine Room	50/170	P	22-2	161	Personnel Access Aisle
						33	Personnel Access Aisle
						43	Emergency Diesel Generator Building 1
						47	Stairway
						56	Channel C Personnel Access Aisle
						90	Personnel Access Aisle
47	I	Stairway	50/146	O-P	22-2	135	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						146	Personnel Access Aisle
						159	Personnel Access Aisle
						161	Personnel Access Aisle
						165	Nuclear Annex HVAC Mechanical Room
						33	Personnel Access Aisle
						43	Emergency Diesel Generator Building 1
						46	Elevator Shaft & Machine Room
						49	HVAC Chase
						56	Channel C Personnel Access Aisle
						90	Personnel Access Aisle
48	I	HVAC Chase	50/170	N-O	22-2	135	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						159	Personnel Access Aisle
						165	Nuclear Annex HVAC Mechanical Room
						166	Component Cooling Water Surge Tank Room
						33	Personnel Access Aisle
						43	Emergency Diesel Generator Building 1
						47	Stairway
						49	Pipe Chase
						56	Channel C Personnel Access Aisle
						90	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
49	I	Pipe Chase	50/170	N	22-2	135	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						157	Hot Tool Crib
						166	Component Cooling Water Surge Tank Room
						33	Personnel Access Aisle
						43	Emergency Diesel Generator Building 1
						48	HVAC Chase
						56	Channel C Personnel Access Aisle
						90	Personnel Access Aisle
50	II	CVCS Area and Primary Chemistry Lab	50/81	Q-W	9-17	110	Resin Storage Area
						111	Equipment Decontamination Area
						114	Stairway
						14	Janitorial/Health Physics Storage/Work Area
						158	Personnel Decon, Storage, Laydown & Work Area
						169	Area Number Reserved
						28	HVAC Chase
						32	Personnel Access Aisle
						42	Emergency Diesel Generator Building 2
						44	CVCS Charging Pump Area
						55	Channel D Personnel Access Aisle
						71	Switchgear Room
						72	Equipment Access Shaft
						76	CVCS Area Storage & Hydrogen Recombiner Area
						77	Fuel Pool Cooling Area
						81	Pool Purification Area and Pipe Chase
51	II	Elevator Shafts and Machine Room	50/146	B-C	11-1	131	Personnel Decontamination Area and Access Aisle
						137	Personnel Access Aisle
						27	Stairway
						3	Channel B Vital Instrument & Equipment Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates		Adjacent Fire Areas	
51	II	Elevator Shafts and Machine Room	50/146	B-C 11-1	32	Personnel Access Aisle
					53	Channel B Personnel Access Aisle
					91	Radiation Access Control and Division II Personnel Access Area
52		Area Number Reserved	/			
53	II	Channel B Personnel Access Aisle	70/	B-IA 11-1	27	Stairway
					51	Elevator Shafts and Machine Room
					54	Channel A Personnel Access Aisle
					55	Channel D Personnel Access Aisle
					58	Essential Chilled Water Area
					60	General Storage Area
					62	Normal Chilled Water Room
					66	Channel B Equipment Room
					78	Valve Gallery
					83	Emergency Feedwater Tank Room
					91	Radiation Access Control and Division II Personnel Access Area
54	I	Channel A Personnel Access Aisle	70/	B-IA 17-2	23	Elevator Shafts & Machine Room
					29	Stairway
					53	Channel B Personnel Access Aisle
					56	Channel C Personnel Access Aisle
					57	Essential Chilled Water Area
					61	Normal Chilled Water Room
					65	Channel A Equipment Room
					67	General Storage Area
					79	Valve Gallery
					82	Emergency Feedwater Tank Room
					90	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates		Adjacent Fire Areas	
55	II	Channel D Personnel Access Aisle	70/	IA-T 11-1	102	Channel D Non-Essential Equipment Room
					169	Area Number Reserved
					17	HVAC Chase
					24	Pipe Chase
					25	Elevator Shaft & Machine Room
					28	HVAC Chase
					31	Stairway
					42	Emergency Diesel Generator Building 2
					50	CVCS Area and Primary Chemistry Lab
					53	Channel B Personnel Access Aisle
					56	Channel C Personnel Access Aisle
					71	Switchgear Room
					72	Equipment Access Shaft
					74	Channel D Equipment Room
					77	Fuel Pool Cooling Area
					78	Valve Gallery
					83	Emergency Feedwater Tank Room
					85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
					91	Radiation Access Control and Division II Personnel Access Area
56	I	Channel C Personnel Access Aisle	70/	IA-T 17-2	106	Fuel Handling Area
					13	HVAC Chase
					18	HVAC Chase
					43	Emergency Diesel Generator Building 1
					46	Elevator Shaft & Machine Room
					47	Stairway
					48	HVAC Chase
					49	Pipe Chase
					54	Channel A Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
56	I	Channel C Personnel Access Aisle	70/ IA-T 17-2	68	Equipment Access Shaft
				70	Switchgear Room
				73	Channel C Equipment Room
				75	Valve Maintenance Shop & Hydrogen Recombiner Area
				79	Valve Gallery
				80	Fuel Pool Cooling Area
				81	Pool Purification Area and Pipe Chase
				82	Emergency Feedwater Tank Room
				84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
				90	Personnel Access Aisle
57	I	Essential Chilled Water Area	70/ C-E 23-2	54	Channel A Personnel Access Aisle
				61	Normal Chilled Water Room
				67	General Storage Area
				94	Security Equipment & CAS
58	II	Essential Chilled Water Area	70/ C-E 9-11	53	Channel B Personnel Access Aisle
				60	General Storage Area
				62	Normal Chilled Water Room
				91	Radiation Access Control and Division II Personnel Access Area
59	B*	Containment	70/170 F-P 12-2	101	Channel C Non-Essential Equipment Room
				102	Channel D Non-Essential Equipment Room
				117	Tool Room
				118	Hot Tool Crib
				119	Emergency Supply Storage Room
				121	Document Room
				122	Storage Area
				123	Control Room and Technical Services Center

Fire Area No.	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
59	B*	Containment	70/170 F-P 12-2	125	Janitorial Storage Room
				135	Personnel Access Aisle
				136	Personnel Access Aisle
				145	Annulus HVAC Mechanical Room
				146	Personnel Access Aisle
				147	Personnel Access Aisle
				15	HVAC Chase and Control Room Mechanical Room
				153	Annulus HVAC Mechanical Room
				156	Hot Tool Crib
				157	Hot Tool Crib
				158	Personnel Decon, Storage, Laydown & Work Area
				159	Personnel Access Aisle
				16	HVAC Chase and Control Room Mechanical Room
				161	Personnel Access Aisle
				163	HVAC Mechanical Room
				165	Nuclear Annex HVAC Mechanical Room
				166	Component Cooling Water Surge Tank Room
				17	HVAC Chase
				18	HVAC Chase
				38	Channel C Subsphere Area
				39	Channel D Subsphere Area
				40	Channel B Subsphere Area
				41	Channel A Subsphere Area
				77	Fuel Pool Cooling Area
				78	Valve Gallery
				79	Valve Gallery
				80	Fuel Pool Cooling Area
				84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
				85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
59	B*	Containment	70/170	F-P	12-2	90	Personnel Access Aisle
						91	Radiation Access Control and Division I* Personnel Access Area
						92	Channel A Non-Essential Equipment Room
						93	Channel B Non-Essential Equipment Room
						95	Penetration Room A
						96	Penetration Room B
						97	Penetration Room C
						98	Penetration Room D
60	II	General Storage Area	70/	B-C	9-10	115	General Storage Area
						26	General Storage Area
						27	Stairway
						53	Channel B Personnel Access Aisle
						58	Essential Chilled Water Area
						91	Radiation Access Control and Division II Personnel Access Area
61	I	Normal Chilled Water Room	,'/	E-H	23-2	5	Maintenance Work Area
						54	Channel A Personnel Access Aisle
						57	Essential Chilled Water Area
						82	Emergency Feedwater Tank Room
						94	Security Equipment & CAS
62	II	Normal Chilled Water Room	70/	E-H	9-11	53	Channel B Personnel Access Aisle
						58	Essential Chilled Water Area
						6	Maintenance Work Area
						83	Emergency Feedwater Tank Room
						91	Radiation Access Control and Division II Personnel Access Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
63	I	Channel C Cable Chase	50/91	E-F	18-1	122	Storage Area
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						2	Channel C Vital Instrument & Equipment Room
						21	Cable Chase
						65	Channel A Equipment Room
						79	Valve Gallery
						92	Channel A Non-Essential Equipment Room
						95	Penetration Room A
64	II	Channel D Cable Chase	50/	E-F	15-1	117	Tool Room
						22	Cable Chase
						4	Channel D Vital Instrument & Equipment Room
						66	Channel B Equipment Room
						78	Valve Gallery
						93	Channel B Non-Essential Equipment Room
						96	Penetration Room B
65	I	Channel A Equipment Room	70/	C-E	17-2	1	Channel A Vital Instrument & Equipment Room
						15	HVAC Chase and Control Room Mechanical Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						2	Channel C Vital Instrument & Equipment Room
						21	Cable Chase
						54	Channel A Personnel Access Aisle
						63	Channel C Cable Chase
						66	Channel B Equipment Room
						69	Remote Shutdown Panel
						79	Valve Gallery
						92	Channel A Non-Essential Equipment Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
66	II	Channel B Equipment Room	70/	C-I	12-1	16	HVAC Chase and Control Room Mechanical Room
						22	Cable Chase
						3	Channel B Vital Instrument & Equipment Room
						4	Channel D Vital Instrument & Equipment Room
						53	Channel B Personnel Access Aisle
						64	Channel D Cable Chase
						65	Channel A Equipment Room
						78	Valve Gallery
						93	Channel B Non-Essential Equipment Room
67	I	General Storage Area	70/	B-C	24-2	20	General Storage Area
						29	Stairway
						54	Channel A Personnel Access Aisle
						57	Essential Chilled Water Area
						89	General Storage Area
						90	Personnel Access Aisle
68	I	Equipment Access Shaft	70/170	Q-R	21a-	104	Electrical Switchgear Room
						106	Fuel Handling Area
						128	Subsphere Exhaust Room
						135	Personnel Access Aisle
						144	Nuclear Annex HVAC Mechanical Room
						146	Personnel Access Aisle
						159	Personnel Access Aisle
						161	Personnel Access Aisle
						162	Fuel Pool HVAC Exhaust Mechanical Room
						33	Personnel Access Aisle
						56	Channel C Personnel Access Aisle
						70	Switchgear Room
						81	Pool Purification Area and Pipe Chase
						90	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
69	B*	Remote Shutdown Panel	70/	D-E	18	1	Channel A Vital Instrument & Equipment Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						21	Cable Chase
						65	Channel A Equipment Room
						92	Channel A Non-Essential Equipment Room
70	I	Switchgear Room	70/	Q-R	19-2	104	Electrical Switchgear Room
						33	Personnel Access Aisle
						56	Channel C Personnel Access Aisle
						68	Equipment Access Shaft
						81	Pool Purification Area and Pipe Chase
71	II	Switchgear Room	70/	Q-R	13-1	112	Electrical Switchgear Room
						28	HVAC Chase
						32	Personnel Access Aisle
						50	CVCS Area and Primary Chemistry Lab
						55	Channel D Personnel Access Aisle
						91	Radiation Access Control and Division II Personnel Access Area
72	II	Equipment Access Shaft	70/81	S-T	10-1	158	Personnel Decon, Storage, Laydown & Work Area
						169	Area Number Reserved
						32	Personnel Access Aisle
						50	CVCS Area and Primary Chemistry Lab
						55	Channel D Personnel Access Aisle
73	I	Channel C Equipment Room	70/	O-Q	19-2	101	Channel C Non-Essential Equipment Room
						18	HVAC Chase
						33	Personnel Access Aisle
						56	Channel C Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
73	I	Channel C Equipment Room	70/	Q-Q	19-2	80	Fuel Pool Cooling Area
74	II	Channel D Equipment Room	70/	Q-Q	13-1	102	Channel D Non-Essential Equipment Room
						17	HVAC Chase
						32	Personnel Access Aisle
						55	Channel D Personnel Access Aisle
						77	Fuel Pool Cooling Area
75	I	Valve Maintenance Shop & Hydrogen Recombiner Area	70/	Q-U	23-2	103	Fuel Pool Storage Area
						14	Janitorial/Health Physics Storage/Work Area
						43	Emergency Diesel Generator Building 1
						56	Channel C Personnel Access Aisle
						81	Pool Purification Area and Pipe Chase
76	II	CVCS Area Storage & Hydrogen Recombiner Area	70/	Q-U	9-11	169	Area Number Reserved
						42	Emergency Diesel Generator Building 2
						50	CVCS Area and Primary Chemistry Lab
						55	Channel D Personnel Access Aisle
77	II	Fuel Pool Cooling Area	70/	K-P	12-1	17	HVAC Chase
						35	Motor Driven Emergency Feedwater Pump Room
						39	Channel D Subsphere Area
						55	Channel D Personnel Access Aisle
						59	Containment
						74	Channel D Equipment Room
						78	Valve Gallery
						80	Fuel Pool Cooling Area
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
						98	Penetration Room D

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
78	II	Valve Gallery	70/	F-K	12-1	16	HVAC Chase and Control Room Mechanical Room
						22	Cable Chase
						37	Turbine Driven Emergency Feedwater Pump Room
						40	Channel B Subsphere Area
						53	Channel B Personnel Access Aisle
						55	Channel D Personnel Access Aisle
						59	Containment
						64	Channel D Cable Chase
						66	Channel B Equipment Room
						77	Fuel Pool Cooling Area
						79	Valve Gallery
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
						96	Penetration Room B
79	I	Valve Gallery	70/	F-K	17-2	15	HVAC Chase and Control Room Mechanical Room
						21	Cable Chase
						36	Turbine Driven Emergency Feedwater Pump Room
						41	Channel A Subsphere Area
						49	Pipe Chase
						54	Channel A Personnel Access Aisle
						59	Containment
						63	Channel C Cable Chase
						65	Channel A Equipment Room
						78	Valve Gallery
						80	Fuel Pool Cooling Area
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
						95	Penetration Room A
80	I	Fuel Pool Cooling Area	70/	K-P	17-2	18	HVAC Chase

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
80	I	Fuel Pool Cooling Area	70/	K-P	17-2	34	Motor Driven Emergency Feedwater Pump Room
						38	Channel C Subsphere Area
						56	Channel C Personnel Access Aisle
						59	Containment
						73	Channel C Equipment Room
						77	Fuel Pool Cooling Area
						79	Valve Gallery
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
						97	Penetration Room C
81	NA	Pool Purification Area and Pipe Chase	7[illegible]	R-U	17-2	106	Fuel Handling Area
						107	Fuel Area Storage
						108	Fuel Area Storage Room
						109	Fuel Area Storage Room
						13	HVAC Chase
						14	Janitorial/Health Physics Storage/Work Area
						38	Channel C Subsphere Area
						45	CVCS Charging Pump Area
						50	CVCS Area and Primary Chemistry Lab
						56	Channel C Personnel Access Aisle
						68	Equipment Access Shaft
						70	Switchgear Room
						75	Valve Maintenance Shop & Hydrogen Recombiner Area
82	I	Emergency Feedwater Tank Room	70/91	H-K	23-2	10	Component Cooling Water Pump Room 1B
						33	Personnel Access Aisle
						43	Emergency Diesel Generator Building 1
						54	Channel A Personnel Access Aisle
						56	Channel C Personnel Access Aisle
						61	Normal Chilled Water Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
82	I	Emergency Feedwater Tank Room	70/91	H-K	23-2	84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
						9	Component Cooling Water Pump Room 1A
						90	Personnel Access Aisle
						94	Security Equipment & CAS
83	II	Emergency Feedwater Tank Room	70/91	H-K	9-11	11	Component Cooling Water Pump Room 2B
						12	Component Cooling Water Pump Room 2A
						32	Personnel Access Aisle
						42	Emergency Diesel Generator Building 2
						53	Channel B Personnel Access Aisle
						55	Channel D Personnel Access Aisle
						62	Normal Chilled Water Room
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
						91	Radiation Access Control and Division II Personnel Access Area
84	I	Main Steam Valve House & Steam Vent from Division	70/146	H-L	22-2	135	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						15	HVAC Chase and Control Room Mechanical Room
						36	Turbine Driven Emergency Feedwater Pump Room
						56	Channel C Personnel Access Aisle
						59	Containment
						79	Valve Gallery
						80	Fuel Pool Cooling Area
						82	Emergency Feedwater Tank Room
						90	Personnel Access Aisle
85	II	Main Steam Valve House & Steam Vent from Division	70/146	H-L	22-2	136	Personnel Access Aisle
						153	Annulus HVAC Mechanical Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
85	II	Main Steam Valve House & Steam Vent from Division	70/146	H-L	22-2	16	HVAC Chase and Control Room Mechanical Room
						42	Emergency Diesel Generator Building 2
						55	Channel D Personnel Access Aisle
						59	Containment
						77	Fuel Pool Cooling Area
						78	Valve Gallery
						83	Emergency Feedwater Tank Room
						91	Radiation Access Control and Division II Personnel Access Area
86		Area Number Reserved	/				
87		Area Number Reserved	/				
88		Area Number Reserved	/				
89	I	General Storage Area	91/	B-C	24-2	29	Stairway
						67	General Storage Area
						90	Personnel Access Aisle
90	I	Personnel Access Aisle	91/	B-R	17-2	101	Channel C Non-Essential Equipment Room
						103	Fuel Pool Storage Area
						104	Electrical Switchgear Room
						106	Fuel Handling Area
						13	HVAC Chase
						131	Personnel Decontamination Area and Access Aisle
						135	Personnel Access Aisle
							HVAC Chase
							Elevator Shafts & Machine Room
							Stairway
						46	Elevator Shaft & Machine Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas
90	I	Personnel Access Aisle	91/ B-R 17-2	47 Stairway
				48 HVAC Chase
				49 Pipe Chase
				54 Channel A Personnel Access Aisle
				56 Channel C Personnel Access Aisle
				59 Containment
				67 General Storage Area
				68 Equipment Access Shaft
				82 Emergency Feedwater Tank
				84 Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
				89 General Storage Area
				91 Radiation Access Control and Division II Personnel Access Area
				92 Channel A Non-Essential Equipment Room
				94 Security Equipment & CAS
				97 Penetration Room C
91	II	Radiation Access Control and Division II Personnel	91/ P-5 9-17	102 Channel D Non-Essential Equipment Room
				110 Resin Storage Area
				111 Equipment Decontamination Area
				112 Electrical Switchgear Room
				113 Hot Machine Shop
				115 General Storage Area
				131 Personnel Decontamination Area and Access Aisle
				136 Personnel Access Aisle
				158 Personnel Decon, Storage, Laydown & Work Area
				17 HVAC Chase
				24 Pipe Chase
				25 Elevator Shaft & Machine Room
				27 Stairway

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
91	II	Radiation Access Control and Division II Personnel	91/ B-S 9 17	28	HVAC Chase
				31	Stairway
				50	CVCS Area and Primary Chemistry Lab
				51	Elevator Shafts and Machine Room
				53	Channel B Personnel Access Aisle
				55	Channel D Personnel Access Aisle
				59	Containment
				60	General Storage Area
				83	Emergency Feedwater Tank Room
				85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
				90	Personnel Access Aisle
				93	Channel B Non-Essential Equipment Room
92	I	Channel A Non-Essential Equipment Room	91/ C-H 17-2	122	Storage Area
				123	Control Room and Technical Services Center
				124	Computer Room
				125	Janitorial Storage Room
				131	Personnel Decontamination Area and Access Aisle
				135	Personnel Access Aisle
				15	HVAC Chase and Control Room Mechanical Room
				19	Stairway - Control Room to vital Instrument & Equipment Room
				21	Cable Chase
				59	Containment
				63	Channel C Cable Chase
				65	Channel A Equipment Room
				69	Remote Shutdown Panel
				90	Personnel Access Aisle
				95	Penetration Room A

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
93	II	Channel B Non-Essential Equipment Room	91/ C-H 12-1	118	Hot Tool Crib
				151	Personnel Decontamination Area and Access Aisle
				16	HVAC Chase and Control Room Mechanical Room
				22	Cable Chase
				59	Containment
				64	Channel D Cable Chase
				66	Channel B Equipment Room
				91	Radiation Access Control and Division II Personnel Access Area
				92	Channel A Non-Essential Equipment Room
				96	Penetration Room B
94	I	Security Equipment & CAS	91/ C-H 23-2	57	Essential Chilled Water Area
				61	Normal Chilled Water Room
				82	Emergency Feedwater Tank Room
				91	Radiation Access Control and Division II Personnel Access Area
95	I	Penetration Room A	91/ F-G 17-2	21	Cable Chase
				59	Containment
				63	Channel C Cable Chase
				79	Valve Gallery
				92	Channel A Non-Essential Equipment Room
				96	Penetration Room B
96	II	Penetration Room B	91/ F-G 14-1	22	Cable Chase
				59	Containment
				64	Channel D Cable Chase
				78	Valve Gallery
				93	Channel B Non-Essential Equipment Room
				95	Penetration Room A

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
97	I	Penetration Room C	91/	O-P	17-2	101	Channel C Non-Essential Equipment Room
						18	HVAC Chase
						59	Containment
						80	Fuel Pool Cooling Area
						90	Personnel Access Aisle
						98	Penetration Room D
98	II	Penetration Room D	91/	O-P	14-1	102	Channel D Non-Essential Equipment Room
						17	HVAC Chase
						59	Containment
						77	Fuel Pool Cooling Area
						91	Radiation Access Control and Division II Personnel Access Area
						97	Penetration Room C
99		Area Number Reserved	/				
100		Area Number Reserved	/				
101	I	Channel C Non-Essential Equipment Room	91/	O-Q	19-2	135	Personnel Access Aisle
						18	HVAC Chase
						59	Containment
						73	Channel C Equipment Room
						90	Personnel Access Aisle
						97	Penetration Room C
102	II	Channel D Non-Essential Equipment Room	91/	O-Q	13-1	136	Personnel Access Aisle
						17	HVAC Chase
						55	Channel D Personnel Access Aisle
						59	Containment
						74	Channel D Equipment Room

Fire Area No	Division	Description	Elevations & Drawing Corrdinates			Adjacent Fire Areas	
102	II	Channel D Non-Essential Equipment Room	91/	Q-Q	13-1	91	Radiation Access Control and Division II Personnel Access Area
						98	Penetration Room D
103	I	Fuel Pool Storage Area	91/	Q-U	23-2	106	Fuel Handling Area
						127	Storage Area
						75	Valve Maintenance Shop & Hydrogen Recombiner Area
						90	Personnel Access Aisle
104	I	Electrical Switchgear Room	91/	Q-R	19-2	107	Fuel Area Storage
						128	Subsphere Exhaust Room
						13	HVAC Chase
						68	Equipment Access Shaft
						70	Switchgear Room
						81	Pool Purification Area and Pipe Chase
						90	Personnel Access Aisle
105	II	HVAC Chase	91/170	W-V	16-1	110	Resin Storage Area
						130	VCT,Boric Acid Tank & Drum Storage Area
						150	Nuclear Annex HVAC Supply Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						168	Fuel Pool HVAC Supply & Exhaust Area
						50	CVCS Area and Primary Chemistry Lab
106	I	Fuel Handling Area	91/146	R-V	17-2	103	Fuel Pool Storage Area
						107	Fuel Area Storage
						108	Fuel Area Storage Room
						109	Fuel Area Storage Room
						110	Resin Storage Area
						127	Storage Area
						128	Subsphere Exhaust Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
106	I	Fuel Handling Area	91/146	R-V	17-2	13	HVAC Chase
						130	VCT,Boric Acid Tank & Drum Storage Area
						135	Personnel Access Aisle
						136	Personnel Access Aisle
						144	Nuclear Annex HVAC Mechanical Room
						146	Personnel Access Aisle
						147	Personnel Access Aisle
						148	Nuclear Annex HVAC Exhaust Mechanical Room I
						149	Nuclear Annex HVAC Exhaust Mechanical Room II
						150	Nuclear Annex HVAC Supply Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						159	Personnel Access Aisle
						50	CVCS Area and Primary Chemistry Lab
						68	Equipment Access Shaft
						81	Pool Purification Area and Pipe Chase
						90	Personnel Access Aisle
						91	Radiation Access Control and Division II Personnel Access Area
107	I	Fuel Area Storage	91/	R-S	20-2	104	Electrical Switchgear Room
						106	Fuel Handling Area
						81	Pool Purification Area and Pipe Chase
108	I	Fuel Area Storage Room	91/	R-T	18-1	106	Fuel Handling Area
						109	Fuel Area Storage Room
						13	HVAC Chase
						81	Pool Purification Area and Pipe Chase
109	I	Fuel Area Storage Room	91/	R-T	17-1	106	Fuel Handling Area
						108	Fuel Area Storage Room
						13	HVAC Chase

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
109	I	Fuel Area Storage Room	91/	R-T	17-1	81	Pool Purification Area and Pipe Chase
110	II	Resin Storage Area	91/	R-W	13a-	105	HVAC Chase
						106	Fuel Handling Area
						112	Electrical Switchgear Room
						130	VCT,Boric Acid Tank & Drum Storage Area
						158	Personnel Decon, Storage, Laydown & Work Area
						28	HVAC Chase
						50	CVCS Area and Primary Chemistry Lab
						91	Radiation Access Control and Division II Personnel Access Area
111	II	Equipment Decontamination Area	91/	S-W	11-1	113	Hot Machine Shop
						114	Stairway
						132	Hot Instrument Shop
						158	Personnel Decon, Storage, Laydown & Work Area
						169	Area Number Reserved
						50	CVCS Area and Primary Chemistry Lab
						91	Radiation Access Control and Division II Personnel Access Area
112	II	Electrical Switchgear Room	91/	Q-R	13a-	110	Resin Storage Area
						135	Subsphere Exhaust Room
						28	HVAC Chase
						71	Switchgear Room
						91	Radiation Access Control and Division II Personnel Access Area
113	II	Hot Machine Shop	91/	Q-U	9-11	111	Equipment Decontamination Area
						76	CVCS Area Storage & Hydrogen Recombiner Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
113	II.	Hot Machine Shop	91'/	Q-U	9-11	91	Radiation Access Control and Division II Personnel Access Area
114	II	Stairway	91/146	W	11-1		
115	II	General Storage Area	91/	B-C	9-10	27	Stairway
						60	General Storage Area
						91	Radiation Access Control and Division II Personnel Access Area
116		Area Number Reserved	/				
117	II	Tool Room	115/	E-F	15-1	118	Hot Tool Crib
						119	Emergency Supply Storage Room
						131	Personnel Decontamination Area and Access Aisle
						16	HVAC Chase and Control Room Mechanical Room
						59	Containment
						64	Channel D Cable Chase
118	II	Hot Tool Crib	115/	E-G	13-1	117	Tool Room
						131	Personnel Decontamination Area and Access Aisle
						136	Personnel Access Aisle
						16	HVAC Chase and Control Room Mechanical Room
						59	Containment
						93	Channel B Non-Essential Equipment Room
119	B*	Emergency Supply Storage Room	115/	E-F	16-1	117	Tool Room
						123	Control Room and Technical Services Center
						16	HVAC Chase and Control Room Mechanical Room
						22	Cable Chase
						59	Containment

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
120		Area Number Reserved	/				
121	B*	Document Room	115/	E-F	17-1	122	Storage Area
						123	Control Room and Technical Services Center
						15	HVAC Chase and Control Room Mechanical Room
						21	Cable Chase
						59	Containment
122	I	Storage Area	115/	E-G	18-2	121	Document Room
						124	Computer Room
						131	Personnel Decontamination Area and Access Aisle
						15	HVAC Chase and Control Room Mechanical Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						59	Containment
						63	Channel C Cable Chase
						92	Channel A Non-Essential Equipment Room
123	B*	Control Room and Technical Services Center	115/130	B-E	16-1	119	Emergency Supply Storage Room
						121	Document Room
						124	Computer Room
						131	Personnel Decontamination Area and Access Aisle
						137	Personnel Access Aisle
						139	Operational Support Center
						140	Technical Support Area Conference Room
						142	Technical Service Center Mechanical Room
						15	HVAC Chase and Control Room Mechanical Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						92	Channel A Non-Essential Equipment Room
						93	Channel B Non-Essential Equipment Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
124	B*	Computer Room	115/	C-E	19-2	122	Storage Area
						123	Control Room and Technical Services Center
						131	Personnel Decontamination Area and Access Aisle
						140	Technical Support Area Conference Room
						142	Technical Service Center Mechanical Room
						19	Stairway - Control Room to Vital Instrument & Equipment Room
						92	Channel A Non-Essential Equipment Room
125	I	Janitorial Storage Room	115/	F-H	20-2	131	Personnel Decontamination Area and Access Aisle
						15	HVAC Chase and Control Room Mechanical Room
						59	Containment
						92	Channel A Non-Essential Equipment Room
126		Area Number Reserved	/				
127	I	Storage Area	115/	Q-U	23-2	103	Fuel Pool Storage Area
						106	Fuel Handling Area
						135	Personnel Access Aisle
128	I	Subsphere Exhaust Room	115/	Q-R	19-2	104	Electrical Switchgear Room
						106	Fuel Handling Area
						13	HVAC Chase
						135	Personnel Access Aisle
						144	Nuclear Annex HVAC Mechanical Room
						68	Equipment Access Shaft
129		Area Number Reserved	/				
130	II	VCT,Boric Acid Tank & Drum Storage Area	115/	R-W	13a-	105	HVAC Chase
						106	Fuel Handling Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
130	II	VCT,Boric Acid Tank & Drum Storage Area	115/	R-W	13a-	110	Resin Storage Area
						133	Subsphere Exhaust Room
						136	Personnel Access Aisle
						148	Nuclear Annex HVAC Exhaust Mechanical Room I
						149	Nuclear Annex HVAC Exhaust Mechanical Room II
						150	Nuclear Annex HVAC Supply Mechanical Room
						151	Nuclear Annex HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						28	HVAC Chase
						50	CVCS Area and Primary Chemistry Lab
131	II	Personnel Decontamination Area and Access Aisle	115/	B-H	10-2	117	Tool Room
						118	Hot Tool Crib
						122	Storage Area
						123	Control Room and Technical Services Center
						124	Computer Room
						125	Janitorial Storage Room
						135	Personnel Access Aisle
						136	Personnel Access Aisle
						137	Personnel Access Aisle
						138	Operational Support Center AMU Room
						139	Operational Support Center
						140	Technical Support Area Conference Room
						142	Technical Service Center Mechanical Room
						15	HVAC Chase and Control Room Mechanical Room
						16	HVAC Chase and Control Room Mechanical Room
						23	Elevator Shafts & Machine Room
						27	Stairway
						29	Stairway
						51	Elevator Shafts and Machine Room
						59	Containment

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
131	II	Personnel Decontamination Area and Access Aisle	115/	B-H	10-2	85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
132	II	Hot Instrument Shop	115/	S-W	11-1	111	Equipment Decontamination Area
						113	Hot Machine Shop
						114	Stairway
						136	Personnel Access Aisle
						152	Instrument Calibration Shop
						158	Personnel Decon, Storage, Laydown & Work Area
133	II	Subsphere Exhaust Room	115/	Q-R	12-1	112	Electrical Switchgear Room
						130	VCT,Boric Acid Tank & Drum Storage Area
						136	Personnel Access Aisle
						147	Personnel Access Aisle
						153	Annulus HVAC Mechanical Room
						28	HVAC Chase
						91	Radiation Access Control and Division II Personnel Access Area
134		Area Number Reserved	/				
135	I	Personnel Access Aisle	115/	H-R	17-2	101	Channel C Non-Essential Equipment Room
						106	Fuel Handling Area
						125	Janitorial Storage Room
						127	Storage Area
						128	Subsphere Exhaust Room
						13	HVAC Chase
						131	Personnel Decontamination Area and Access Aisle
						136	Personnel Access Aisle
						145	Annulus HVAC Mechanical Room
						146	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
135	I	Personnel Access Aisle	115/	H-R	17-2	18	HVAC Chase
						46	Elevator Shaft & Machine Room
						47	Stairway
						48	HVAC Chase
						49	Pipe Chase
						59	Containment
						68	Equipment Access Shaft
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
						90	Personnel Access Aisle
136	II	Personnel Access Aisle	115/	E-S	11-1	106	Fuel Handling Area
						113	Hot Machine Shop
						118	Hot Tool Crib
						130	VCT,Boric Acid Tank & Drum Storage Area
						131	Personnel Decontamination Area and Access Aisle
						132	Hot Instrument Shop
						133	Subsphere Exhaust Room
						135	Personnel Access Aisle
						147	Personnel Access Aisle
						152	Instrument Calibration Shop
						153	Annulus HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						16	HVAC Chase and Control Room Mechanical Room
						17	HVAC Chase
						24	Pipe Chase
						25	Elevator Shaft & Machine Room
						28	HVAC Chase
						31	Stairway
						50	CVCS Area and Primary Chemistry Lab
						59	Containment

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
136	II	Personnel Access Aisle	115/	E-S	11-1	85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
						91	Radiation Access Control and Division II Personnel Access Area
137	II	Personnel Access Aisle	130/	B-F	10-1	123	Control Room and Technical Services Center
						131	Personnel Decontamination Area and Access Aisle
						138	Operational Support Center AMU Room
						139	Operational Support Center
						16	HVAC Chase and Control Room Mechanical Room
						27	Stairway
						51	Elevator Shafts and Machine Room
138	II	Operational Support Center AMU Room	130/	B-C	13a-	131	Personnel Decontamination Area and Access Aisle
						137	Personnel Access Aisle
						139	Operational Support Center
139	B*	Operational Support Center	130/	B-E	13a-	123	Control Room and Technical Services Center
						131	Personnel Decontamination Area and Access Aisle
						137	Personnel Access Aisle
						138	Operational Support Center AMU Room
						16	HVAC Chase and Control Room Mechanical Room
140	B*	Technical Support Area Conference Room	130/	B-D	19-2	123	Control Room and Technical Services Center
						142	Technical Service Center Mechanical Room
						175	Personnel Access Aisle (tentative assignment)
141		Area Number Reserved	/				
142	B*	Technical Service Center Mechanical Room	130/	D-E	18-2	123	Control Room and Technical Services Center
						124	Computer Room

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
142	B*	Technical Service Center Mechanical Room	130/	D-E	18-2	131	Personnel Decontamination Area and Access Aisle
						140	Technical Support Area Conference Room
						15	HVAC Chase and Control Room Mechanical Room
						175	Personnel Access Aisle (tentative assignment)
						19	Stairway - Control Room to Vital Instrument & Equipment Room
143		Area Number Reserved	/				
144	I	Nuclear Annex HVAC Mechanical Room	130/	Q-R	19-2	106	Fuel Handling Area
						128	Subsphere Exhaust Room
						13	HVAC Chase
						146	Personnel Access Aisle
						159	Personnel Access Aisle
						68	Equipment Access Shaft
145	I	Annulus HVAC Mechanical Room	130/	L-Q	19-2	135	Personnel Access Aisle
						146	Personnel Access Aisle
						157	Hot Tool Crib
						159	Personnel Access Aisle
						15	HVAC Chase
						47	Stairway
						48	HVAC Chase
						49	Pipe Chase
						59	Containment
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
146	I	Personnel Access Aisle	130/	O-R	17-2	106	Fuel Handling Area
						13	HVAC Chase
						135	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
146	I	Personnel Access Aisle	130/ O-R 17-2	144	Nuclear Annex HVAC Mechanical Room
				145	Annulus HVAC Mechanical Room
				147	Personnel Access Aisle
				159	Personnel Access Aisle
				18	HVAC Chase
				46	Elevator Shaft & Machine Room
				47	Stairway
				59	Containment
				68	Equipment Access Shaft
147	II	Personnel Access Aisle	130/ L-S 17-1	106	Fuel Handling Area
				133	Subsphere Exhaust Room
				136	Personnel Access Aisle
				146	Personnel Access Aisle
				148	Nuclear Annex HVAC Exhaust Mechanical Room I
				151	Nuclear Annex HVAC Mechanical Room
				152	Instrument Calibration Shop
				153	Annulus HVAC Mechanical Room
				158	Personnel Decon, Storage, Laydown & Work Area
				17	HVAC Chase
				25	Elevator Shaft & Machine Room
				28	HVAC Chase
				31	Stairway
				59	Containment
148	II	Nuclear Annex HVAC Exhaust Mechanical Room I	130/ R-T 14-1	106	Fuel Handling Area
				130	VCT,Boric Acid Tank & Drum Storage Area
				147	Personnel Access Aisle
				149	Nuclear Annex HVAC Exhaust Mechanical Room II
				151	Nuclear Annex HVAC Mechanical Room
				158	Personnel Decon, Storage, Laydown & Work Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
148	II	Nuclear Annex HVAC Exhaust Mechanical Room I	130/	R-T	14-1	28	HVAC Chase
						50	CVCS Area and Primary Chemistry Lab
149	I	Nuclear Annex HVAC Exhaust Mechanical Room II	130/	T-U	14-1	106	Fuel Handling Area
						130	VCT,Boric Acid Tank & Drum Storage Area
						148	Nuclear Annex HVAC Exhaust Mechanical Room I
						150	Nuclear Annex HVAC Supply Mechanical Room
						151	Nuclear Annex HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
150	II	Nuclear Annex HVAC Supply Mechanical Room	130/	U-W	14-1	106	Fuel Handling Area
						130	VCT,Boric Acid Tank & Drum Storage Area
						149	Nuclear Annex HVAC Exhaust Mechanical Room II
						151	Nuclear Annex HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
151	I	Nuclear Annex HVAC Mechanical Room	130/	R-W	13a-	130	VCT,Boric Acid Tank & Drum Storage Area
						147	Personnel Access Aisle
						148	Nuclear Annex HVAC Exhaust Mechanical Room I
						149	Nuclear Annex HVAC Exhaust Mechanical Room II
						150	Nuclear Annex HVAC Supply Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
152	II	Instrument Calibration Shop	130/	R-W	11-1	114	Stairway
						132	Hot Instrument Shop
						147	Personnel Access Aisle
						158	Personnel Decon, Storage, Laydown & Work Area
153	II	Annulus HVAC Mechanical Room	130/	L-Q	11-1	133	Subsphere Exhaust Room
						136	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
153	II	Annulus HVAC Mechanical Room	130/	L-Q	11-1	147	Personnel Access Aisle
						156	Hot Tool Crib
						158	Personnel Decon, Storage, Laydown & Work Area
						17	HVAC Chase
						24	Pipe Chase
						31	Stairway
						59	Containment
						85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room
154		Area Number Reserved	/				
155		Area Number Reserved	/				
156	II	Hot Tool Crib	146/	L-N	11-1	153	Annulus HVAC Mechanical Room
						158	Personnel Decon, Storage, Laydown & Work Area
						59	Containment
157	I	Hot Tool Crib	147/	L-N	21-2	145	Annulus HVAC Mechanical Room
						159	Personnel Access Aisle
						166	Component Cooling Water Surge Tank Room
						49	Pipe Chase
						59	Containment
						84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room
158	II	Personnel Decon, Storage, Laydown & Work Area	146/	N-W	11-1	105	HVAC Chase
						106	Fuel Handling Area
						110	Resin Storage Area
						111	Equipment Decontamination Area
						114	Stairway

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
158	II	Personnel Decon, Storage, Laydown & Work Area	146/ N-W 11-1	130	VCT,Boric Acid Tank & Drum Storage Area
				132	Hot Instrument Shop
				136	Personnel Access Aisle
				147	Personnel Access Aisle
				148	Nuclear Annex HVAC Exhaust Mechanical Room I
				149	Nuclear Annex HVAC Exhaust Mechanical Room II
				150	Nuclear Annex HVAC Supply Mechanical Room
				151	Nuclear Annex HVAC Mechanical Room
				152	Instrument Calibration Shop
				153	Annulus HVAC Mechanical Room
				156	Hot Tool Crib
				159	Personnel Access Aisle
				17	HVAC Chase
				24	Pipe Chase
				25	Elevator Shaft & Machine Room
				28	HVAC Chase
				31	Stairway
				50	CVCS Area and Primary Chemistry Lab
				59	Containment
				72	Equipment Access Shaft
				91	Radiation Access Control and Division II Personnel Access Area
159	I	Personnel Access Aisle	146/ N-R 17-2	106	Fuel Handling Area
				13	HVAC Chase
				144	Nuclear Annex HVAC Mechanical Room
				145	Annulus HVAC Mechanical Room
				146	Personnel Access Aisle
				157	Hot Tool Crib
				158	Personnel Decon, Storage, Laydown & Work Area
				161	Personnel Access Aisle

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
159	[illegible]	Personnel Access Aisle	146/	N-R	17-2	165	Nuclear Annex HVAC Mechanical Room
						18	HVAC Chase
						46	Elevator Shaft & Machine Room
						47	Stairway
						48	HVAC Chase
						59	Containment
						68	Equipment Access Shaft
160		Area Number Reserved	/				
161	I	Personnel Access Aisle	170/	O-R	17-2	106	Fuel Handling Area
						13	HVAC Chase
						159	Personnel Access Aisle
						162	Fuel Pool HVAC Exhaust Mechanical Room
						163	HVAC Mechanical Room
						165	Nuclear Annex HVAC Mechanical Room
						18	HVAC Chase
						46	Elevator Shaft & Machine Room
						47	Stairway
						59	Containment
						68	Equipment Access Shaft
162	I	Fuel Pool HVAC Exhaust Mechanical Room	170/	Q-R	19-2	13	HVAC Chase
						159	Personnel Access Aisle
						161	Personnel Access Aisle
						68	Equipment Access Shaft
163	II	HVAC Mechanical Room	170/	F-W	15-1	158	Personnel Decon, Storage, Laydown & Work Area
						161	Personnel Access Aisle
						168	Fuel Pool HVAC Supply & Exhaust Area

Fire Area No	Division	Description	Elevations & Drawing Coordinates			Adjacent Fire Areas	
163	II	HVAC Mechanical Room	170/	P-Q	15-1	28	HVAC Chase
						59	Containment
164		Area Number Reserved	/				
165	I	Nuclear Annex HVAC Mechanical Room	170/	N-Q	19-2	159	Personnel Access Aisle
						161	Personnel Access Aisle
						166	Component Cooling Water Surge Tank Room
						18	HVAC Chase
						47	Stairway
						48	HVAC Chase
						59	Containment
166	I	Component Cooling Water Surge Tank Room	170/	L-N	21-2	157	Hot Tool Crib
						165	Nuclear Annex HVAC Mechanical Room
						48	HVAC Chase
						59	Containment
167	II	Component Cooling Water Surge Tank Room	170/	N-Q	11-1	158	Personnel Decon, Storage, Laydown & Work Area
						31	Stairway
168	II	Fuel Pool HVAC Supply & Exhaust Area	170/	Q-W	15-1	105	HVAC Chase
						158	Personnel Decon, Storage, Laydown & Work Area
						163	HVAC Mechanical Room
169		Area Number Reserved	/				
170		Area Number Reserved	/				
171		Area Number Reserved	/				

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 4 - ADJACENT FIRE AREAS

Fire Area No	Division	Description	Elevations & Drawing Coordinates	Adjacent Fire Areas	
172		Area Number Reserved	/		
173		Area Number Reserved	/		
174		Area Number Reserved	/		
175	B*	Personnel Access Aisle (tentative assignment)	130/ B-D 20-2	123	Control Room and Technical Services Center
				131	Personnel Decontamination Area and Access Aisle
				140	Technical Support Area Conference Room
				142	Technical Service Center Mechanical Room
				15	HVAC Chase and Control Room Mechanical Room
				23	Elevator Shafts & Machine Room
				29	Stairway

4.0 Fire Protection Information System

To manipulate the amount of information necessary to perform the analysis for each of the large number of fire areas, the information was entered into a relational database. This eliminated redundant entry, storage, and maintenance of information. It also facilitates viewing the information in a variety of ways. Presentation of the data for this report was supported through the use of a report generating tool operating on the contents of the database.

The database is expandable to accommodate additional information about each of the fire areas, their contents and the location of individual components, cables,raceways, piping, and other items as detailed design information becomes available.

Figure 1 provides an overview of the database structure.

5.0 Results of the Phase I Fire Hazards Assessment

The Fire Hazards Risk Assessment Phase I analysis confirms that a fire in any of the analyzed areas will not eliminate the capability to achieve and maintain safe shutdown.

Table 5 shows the impact of a fire in each fire area on the ability to achieve and maintain safe shutdown. The impact is based on the assumption that the fire does not propagate beyond the fire area and assumes that the fire renders all the equipment in the area inoperable.

For the fire areas which were analyzed, the affect of a fire in the area may be classified as :

1. The area contains no equipment important to safe shutdown.

2. The area contains equipment important to safe shutdown, but sufficient redundancy exists in other channels within the same division, or in the opposite division, to assure that safe shutdown can be achieved and maintained.

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 5 - EFFECT OF FIRE IN AREA ON SAFE SHUTDOWN CAPABILITY

22-JUL-92

Fire Area		Affect of Loss of Equipment in Area
1	Channel A Vital Instrument & Equipment Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Channel C in Division I, and Channels B and D of Division II.
2	Channel C Vital Instrument & Equipment Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Channel A in Division I, and Channels B and D of Division II.
3	Channel B Vital Instrument & Equipment Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Channel D in Division II, and Channels A and C of Division I.
4	Channel D Vital Instrument & Equipment Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Channel B in Division II, and Channels A and C of Division I.
5	Maintenance Work Area	This area contains no equipment necessary for safe shutdown.
6	Maintenance Work Area	This area contains no equipment necessary for safe shutdown.
7	Instrument Air Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Division II Instrument Air Room.
8	Instrument Air Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Division I Instrument Air Room.
9	Component Cooling Water Pump Room 1A	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in CCW Pump Room 1B in Division I and in CCW Pump Rooms 2A and 2B in Division II.

System 80+ FIRE PROTECTION INFORMATION SYSTEM
Table 5 - EFFECT OF FIRE IN AREA ON SAFE SHUTDOWN CAPABILITY

22-JUL-92

Fire Area		Affect of Loss of Equipment in Area
10	Component Cooling Water Pump Room 1B	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in CCW Pump Room 1A in Division I and in CCW Pump Rooms 2A and 2B in Division II.
11	Component Cooling Water Pump Room 2B	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in CCW Pump Room 2A in Division II and in CCW Pump Rooms 1A and 1B in Division I.
12	Component Cooling Water Pump Room 2A	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in CCW Pump Room 2B in Division II and in CCW Pump Rooms 1A and 1B in Division I.
13	HVAC Chase	This area contains no equipment necessary for safe shutdown. It supports HVAC supply and exhaust to the containment. In the event a fire in the chase eliminated its capability to support HVAC functions, redundant HVAC capability is provided through Division II HVAC capability.
14	Janitorial/Health Physics Storage/Work Area	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Division II and in other Fire Areas in Division I.
15	HVAC Chase and Control Room Mechanical Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Division II, Channels B and D, and in Channel C equipment located in other Fire Areas in Division I.

Fire Area		Affect of Loss of Equipment in Area
16	HVAC Chase and Control Room Mechanical Room	Loss of all equipment in this area will not prevent a safe shutdown. Redundant equipment exists in Division II, Channel D located in other Fire Areas in Division II and in Channels A and C in Division I.
17	HVAC Chase	This area contains no equipment necessary for safe shutdown. It supports HVAC supply and exhaust to the containment. In the event a fire in the chase eliminated its capability to support HVAC functions, redundant HVAC capability is provided through Division I HVAC capability.
18	HVAC Chase	This area contains no equipment necessary for safe shutdown. It supports HVAC supply and exhaust to the containment. In the event a fire in the chase eliminated its capability to support HVAC functions, redundant HVAC capability is provided through Division II HVAC capability.
19	Stairway trol Room to V tal Instrument & Equipment Room	This area contains no equipment necessary for safe shutdown. Alternate means of access to areas and rooms served by this stairway are provided by stairways in Division I and II which serve the adjacent personnel access aisles.
20	General Storage Area	This area contains no equipment necessary for safe shutdown.

Fire Area		Affect of Loss of Equipment in Area
21	Cable Chase	This area contains Channel A cable. Loss of this cable to fire may result in complete loss of Channel A functionality. The ability to achieve safe shutdown is not eliminated since redundant equipment and functionality is provided in Channel C of Division I, and in Channels B and D of Division II.
22	Cable Chase	This area contains Channel B cable. Loss of this cable to fire may result in complete loss of Channel B functionality. The ability to achieve safe shutdown is not eliminated since redundant equipment and functionality is provided in Channel D of Division II, and in Channels A and C of Division I.
23	Elevator Shafts & Machine Room	This area contains no equipment necessary for safe shutdown. Alternate personnel access routes are provided by the stairway located in a separate fire area adjacent to the elevator, and by an elevator and stairway in Division II.
24	Pipe Chase	This fire area contains Division II piping associated with component cooling water and other safety-related functions. In the event of a fire in this area which would prevent the accomplishment of the functions supported by the piping, redundant capability is provided in Division I.
25	Elevator Shaft & Machine Room	This area contains no equipment necessary to safe shutdown. It does support personnel access, however. Alternate access paths are provided by a stairway located adjacent to the elevator in a seperate fire area, and by other stairways and elevator facilities accessible from the same personnel access corridor.

Fire Area		Affect of Loss of Equipment in Area
26	General Storage Area	This area contains no equipment necessary for safe shutdown.
27	Stairway	This area contains no equipment necessary for safe shutdown. Alternate paths for personnel access are provided by the elevator located in a separate fire area adjacent to the stairway, and by stairways and elevators in Division I.
28	HVAC Chase	This area contains no equipment necessary for safe shutdown. In the event fire in this area prevents functionality of the associated HVAC systems, redundant systems in Division I will be available and supported by separate HVAC equipment.
29	Stairway	This area contains no equipment necessary for safe shutdown. Alternate paths for personnel access are provided by the elevator located in a separate fire area adjacent to the stairway, and by stairways and elevators in Division II.
30	Area Number Reserved	(Area number not in use.)
31	Stairway	This area contains no equipment necessary for safe shutdown. does support personnel access, however. Alternate personnel access paths are provided by the elevator located adjacent to the stairway in a separate fire area, and by stairways and elevators accessed by the same personnel access corridors.
32	Personnel Access Aisle	Loss of all equipment in this area would not prevent achieving safe shutdown. In the event of loss of all equipment in this area due to a fire, safe shutdown functions associated with reactor makeup and component cooling water system chemical addition would be provided by redundant equipment in Division I.

Fire Area		Affect of Loss of Equipment in Area
33	Personnel Access Aisle	Loss of all equipment in this area would not prevent achieving safe shutdown. In the event of loss of all equipment in this area due to a fire, safe shutdown functions associated with reactor makeup and component cooling water system chemical addition would be provided by redundant equipment in Division II.
34	Motor Driven Emergency Feedwater Pump Room	Loss of the motor-driven emergency feedwater pump in this room would not prevent achieving safe shutdown. Redundant emergency feed water capability is provided by the turbine-driven emergency feedwater pump in a separate fire area in Division I and by motor-driven and turbine-driven emergency feedwater pumps located in Division II.
35	Motor Driven Emergency Feedwater Pump Room	Loss of the motor-driven emergency feedwater pump in this room would not prevent achieving safe shutdown. Redundant emergency feed water capability is provided by the turbine-driven emergency feedwater pump in a separate fire area in Division II and by motor-driven and turbine-driven emergency feedwater pumps located in Division I.
36	Turbine Driven Emergency Feedwater Pump Room	Loss of the turbine-driven emergency feedwater pump in this room would not prevent achieving safe shutdown. Redundant emergency feed water capability is provided by the motor-driven emergency feedwater pump in a separate fire area in Division I and by motor-driven and turbine-driven emergency feedwater pumps located in Division II.

Fire Area		Affect of Loss of Equipment in Area
37	Turbine Driver Emergency Feedwater Pump Room	Loss of the turbine-driven emergency feedwater pump in this room would not prevent achieving safe shutdown. Redundant emergency feed water capability is provided by the motor-driven emergency feedwater pump in a separate fire area in Division II and by motor-driven and turbine-driven emergency feedwater pumps located in Division I.
38	Channel C Subsphere Area	Loss o all equipment in this area will not prevent achieving safe shutdown. Redundant capability is provided by Channel A, B, and D equipment in separate fire areas.
39	Channel D Subsphere Area	Loss of all equipment in this area will not prevent achieving safe shutdown. Redundant capability is provided by Channel A, B, and C equipment in separate fire areas.
40	Channel B Subsphere Area	Loss of all equipment in this area will not prevent achieving safe shutdown. Redundant capability is provided by Channel A, C, and D equipment in separate fire areas.
41	Channel A Subsphere Area	Loss of all equipment in this area will not prevent achieving safe shutdown. Redundant capability is provided by Channel B, C, and D equipment in separate fire areas.
42	Emergency Diesel Generator Building 2	Loss of all equipment in this area will not prevent the ability to achieve safe shutdown. Redundant diesel generator capability exists in Division I.
43	Emergency Diesel Generator Building 1	Loss of all equipment in this area will not prevent the ability to achieve safe shutdown. Redundant diesel generator capability exists in Division II.

Fire Area		Affect of Loss of Equipment in Area
44	CVCS Charging Pump Area	Loss of the charging pump located in this fire area will not prevent the ability to achieve safe shutdown. Redundant charging capability is provided in Division I.
45	CVCS Charging Pump Area	Loss of the charging pump located in this fire area will not prevent the ability to achieve safe shutdown. Redundant charging capability is provided in Division II.
46	Elevator Shaft & Machine Room	This area contains no equipment necessary for safe shutdown. Alternate routes for personnel access are provided by the stairway located in a separate fire area adjacent to the elevator and by stairways and elevators in Division II.
47	Stairway	This area contains no equipment necessary for safe shutdown. It does support personnel access, however. Alternate personnel access paths are provided by the elevator located adjacent to the stairway in a separate fire area, and by stairways and elevators accessed by the same personnel access corridors.
48	HVAC Chase	This area contains no equipment necessary for safe shutdown.
49	Pipe Chase	This fire area contains Division I piping associated with component cooling water and other safety-related functions. In the event of a fire in this area which would prevent the accomplishment of the functions supported by the piping, redundant capability is provided in Division II.

Fire Area		Affect of Loss of Equipment in Area
50	CVCS Area and Primary Chemistry Lab	This area contains no equipment necessary to achieve safe shutdown. Loss of all equipment in this area will not prevent achieving safe shutdown. Safety-related equipment in this area provides functions associated with chemical & volume control.
51	Elevator Shafts and Machine Room	This area contains no equipment necessary for safe shutdown. Alternate personnel access routes are provided by the stairway located in a separate fire area adjacent to the elevator, and by an elevator and stairway in Division I.
52	Area Number Reserved	(Area number not in use.)
53	Channel B Personnel Access Aisle	This area contains cable associated with Channel B. In the event of a fire in this area, loss of Channel B functions supported by the cable located in this area will not prevent achieving safe shutdown. Redundant functionality is provided by Channel D equipment in Division II, and by Channel A and C equipment in Division I. This area is an aisleway which also provides personnel access to Division II Essential and Normal Chilled Water rooms, and to Division 2 Channel Equipment rooms. In the event a fire in the aisle blocks access to equipment required to achieve safe shutdown in any of the rooms located off this aisleway, redundant functionality exists in Division I, and safe shutdown will not be prevented.

Fire Area		Affect of Loss of Equipment in Area
54	Channel A Personnel Access Aisle	This area contains cable associated with Channel A. In the event of a fire in this area, loss of Channel A functions supported by the cable located in this area will not prevent achieving safe shutdown. Redundant functionality is provided by Channel C equipment in Division I, and by Channel B and D equipment in Division II. This area is an aisleway which also provides personnel access to Division I Essential and Normal Chilled Water rooms, and to Division I Channel Equipment rooms. In the event a fire in the aisle blocks access to equipment required to achieve safe shutdown in any of the rooms located off this aisleway, redundant functionality exists in Division II, and safe shutdown will not be prevented.
55	Channel D Personnel Access Aisle	This area contains cable associated with Channel D. In the event of a fire in this area, loss of Channel D functions supported by the cable located in this area will not prevent achieving safe shutdown. Redundant functionality is provided by Channel B equipment in Division II, and by Channel A and C equipment in Division I. This area is an aisleway which also provides personnel access to Division II Channel Equipment rooms. In the event a fire in the aisle blocks access to equipment required to achieve safe shutdown in any of the rooms located off this aisleway, redundant functionality exists in Division I, and safe shutdown will not be prevented.

Fire Area	Affect of Loss of Equipment in Area
56 Channel C Personnel Access Aisle	This area contains cable associated with Channel C. In the event of a fire in this area, loss of Channel C functions supported by the cable located in this area will not prevent achieving safe shutdown. Redundant functionality is provided by Channel A equipment in Division I, and by Channel B and D equipment in Division II. This area is an aisleway which also provides personnel access to Division I Channel Equipment rooms. In the event a fire in the aisle blocks access to equipment required to achieve safe shutdown in any of the rooms located off this aisleway, redundant functionality exists in Division II, and safe shutdown will not be prevented.
57 Essential Chilled Water Area	This area contains Essential Chilled Water System equipment providing chilled water to Division I safety-related Air Handling Units. In the event of loss of all equipment in this area due to a fire, achieving safe shutdown will not be prevented. Redundant functionality is provided by Division II equipment.
58 Essential Chilled Water Area	This area contains Essential Chilled Water System equipment providing chilled water to Division II safety-related Air Handling Units. In the event of loss of all equipment in this area due to a fire, achieving safe shutdown will not be prevented. Redundant functionality is provided by Division I equipment.

Fire Area		Affect of Loss of Equipment in Area
59	Containment	This fire area is defined to be the containment which spans numerous levels and contains a number of components and systems which are safety-related and important to safe shutdown. Protection of safe shutdown capability in the event of fire is provided by separation of redundant equipment associated with different divisions and channels within the area by spaces free of combustible materials. This reduces the potential for propagation of a localized fire affecting one group of equipment to an adjacent group of equipment. This screening analysis is not applicable to the containment because of the quantity and nature of equipment contained within the single fire area defined as the containment. Where redundant divisions of equipment converge, an engineering analysis will be performed to verify that safe shutdown can be achieved using equipment and systems outside the area of the fire.
60	General Storage Area	This area contains no equipment necessary for safe shutdown.
61	Normal Chilled Water Room	This area contains no equipment necessary for safe shutdown.
62	Normal Chilled Water Room	This area contains no equipment necessary for safe shutdown.
63	Channel C Cable Chase	This area contains Channel C cable. Loss of this cable to fire may result in complete loss of Channel C functionality. The ability to achieve safe shutdown is not eliminated since redundant equipment and functionality is provided in Channel A of Division I, and in Channels B and D of Division II.

Fire Area		Affect of Loss of Equipment in Area
64	Channel D Cable Chase	This area contains Channel D cable. Loss of this cable to fire may result in complete loss of Channel D functionality. The ability to achieve safe shutdown is not eliminated since redundant equipment and functionality is provided in Channel B of Division II, and in Channels A and C of Division I.
65	Channel A Equipment Room	This area contains Division I, Channel A electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel C of Division I and Channels B and D of Division II.
66	Channel B Equipment Room	This area contains Division II, Channel B electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel D of Division II and Channels A and C of Division I.
67	General Storage Area	This area contains no equipment necessary for safe shutdown.
68	Equipment Access Shaft	This area contains no equipment necessary for safe shutdown.
69	Remote Shutdown Panel	This area contains the Remote Shutdown Panel. It serves as the backup shutdown system to the control room. Loss of this area due to a fire will not prevent achieving a safe shutdown since the Control Room will be available.

Fire Area		Affect of Loss of Equipment in Area
70	Switchgear Room	This area contains Division I, Channel C electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel A of Division I and Channels B and D of Division II.
71	Switchgear Room	This area contains Division II, Channel D electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel B of Division II and Channels A and C of Division I.
72	Equipment Access Shaft	This area contains no equipment necessary for safe shutdown.
73	Channel C Equipment Room	This area contains Division I, Channel C electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel A of Division I and Channels B and D of Division II.

Fire Area		Affect of Loss of Equipment in Area
74	Channel D Equipment Room	This area contains Division II, Channel D electrical equipment which provides AC and DC power for control and instruments required for safe shutdown. Loss of all equipment in this area will not prevent achieving a safe shutdown since redundant equipment and functionality exists associated with Channel B of Division II and Channels A and C of Division I.
75	Valve Maintenance Shop & Hydrogen Recombiner Area	This area contains no equipment necessary for safe shutdown.
76	CVCS Area Storage & Hydrogen Recombiner Area	This area contains no equipment necessary for safe shutdown.
77	Fuel Pool Cooling Area	This area contains equipment necessary to maintain the temperature of the spent fuel pool below 120 degF for safe shutdown. Loss of all equipment in this area to a fire does not prevent maintenance of the spent fuel pool temperature below the required limit. In the event of a fire which causes the equipment and systems in this area to be incapable of performing their safe shutdown functions, redundant functionality exists in the Division I Fuel Pool Cooling Area.
78	Valve Gallery	This area contains Division II valves and piping. Loss of all equipment in this area will not prevent achieving a safe shutdown. In the event of fire which causes loss of all functions supported by the valves and piping in this area, redundant functionality will be available using Division I equipment and systems.

Fire Area		Affect of Loss of Equipment in Area
79	Valve Gallery	This area contains Division I valves and piping. Loss of all equipment in this area will not prevent achieving a safe shutdown. In the event of fire which causes loss of all functions supported by the valves and piping in this area, redundant functionality will be available using Division II equipment and systems.
80	Fuel Pool Cooling Area	This area contains equipment necessary to maintain the temperature of the spent fuel pool below 120 degF for safe shutdown. Loss of all equipment in this area to a fire does not prevent maintenance of the spent fuel pool temperature below the required limit. In the event of a fire which causes the equipment and systems in this area to be incapable of performing their safe shutdown functions, redundant functionality exists in the Division II Fuel Pool Cooling Area.
81	Pool Purification Area and Pipe Chase	This area contains no equipment necessary for safe shutdown
82	Emergency Feedwater Tank Room	This area contains the Division I Emergency Feedwater Tanks A and B. Loss of all equipment in this area due to a fire will not prevent achieving a safe shutdown. Division II EFW tanks and supporting functions would continue to be available.
83	Emergency Feedwater Tank Room	This area contains the Division II Emergency Feedwater Tanks A and B. Loss of all equipment in this area due to a fire will not prevent achieving a safe shutdown. Division I EFW tanks and supporting functions would continue to be available.

Fire Area		Affect of Loss of Equipment in Area
84	Main Steam Valve House & Steam Vent from Division I Turbine Driven Emergency Feedwater Pump Room	This area contains Division I Main Steam Isolation, Bypass, Safety and Atmospheric Dump Valves. Loss of all equipment in this area due to a fire would not prevent achieving a safe shutdown. Redundant Main Steam Safety Valves and Atmospheric Dump Valves are provided in Division II. Main Steam Isolation and Isolation Bypass Valves are assumed to fail closed in the event of loss of control function.
85	Main Steam Valve House & Steam Vent from Division II Turbine Driven Emergency Feedwater Pump Room	This area contains Division II Main Steam Isolation, Bypass, Safety and Atmospheric Dump Valves. Loss of all equipment in this area due to a fire would not prevent achieving a safe shutdown. Redundant Main Steam Safety Valves and Atmospheric Dump Valves are provided in Division I. Main Steam Isolation and Isolation Bypass Valves are assumed to fail closed in the event of loss of control function.
86	Area Number Reserved	(Area number not in use.)
87	Area Number Reserved	(Area number not in use.)
88	Area Number Reserved	(Area number not in use.)
89	General Storage Area	This area contains no equipment necessary for safe shutdown.

Fire Area	Affect of Loss of Equipment in Area
90 Personnel Access Aisle	This area contains Channel A and C cable and supports access to Channel A and Channel C Non-Essential Electrical Equipment Rooms. It also includes HVAC units supporting Channel C areas. Loss of all equipment in this area due to a fire will not prevent achieving safe shutdown. Redundant functionality for Channel A and C systems exists in Channels B & D of Division II. All of the Non-essential equipment rooms are provided with more than one means of egress, in most cases, through other fire areas. The Channel C RCP Switchgear Room contains two doors, both leading to this fire area.
91 Radiation Access Control and Division II Personnel Access Area	This area contains Channel B and D cable and supports access to Channel B and Channel D Non-Essential Electrical Equipment Rooms. It also includes HVAC units supporting Channel D areas. Loss of all equipment in this area due to a fire will not prevent achieving safe shutdown. Redundant functionality for Channel B and D systems exists in Channels A & C of Division I. All of the Non-essential equipment rooms are provided with more than one means of egress, in most cases, through other fire areas. The Channel D RCP Switchgear Room contains two doors, both leading to this fire area.
92 Channel A Non-Essential Equipment Room	This area contains non-essential electrical equipment for Channel A. Loss of all equipment in this area due to fire would not prevent achieving safe shutdown. Redundant functionality exists in Channel C in Division I, and in Channels B & D in Division II.

Fire Area	Affect of Loss of Equipment in Area
93 Channel B Non-Essential Equipment Room	This area contains non-essential electrical equipment for Channel B. Loss of all equipment in this area due to fire would not prevent achieving safe shutdown. Redundant functionality exists in Channel D in Division II, and in Channels A & C in Division I.
94 Security Equipment & CAS	This area contains no equipment necessary for safe shutdown.
95 Penetration Room A	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant equipment and functionality is provided in Channel C of Division I and in Channels B and D of Division II.
96 Penetration Room B	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant equipment and functionality is provided in Channel D of Division II and in Channels A and C of Division I.
97 Penetration Room C	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant equipment and functionality is provided in Channel A of Division I and in Channels B and D of Division II.
98 Penetration Room D	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant equipment and functionality is provided in Channel B of Division II and in Channels A and C of Division I.
99 Area Number Reserved	(Area number not in use.)
100 Area Number Reserved	(Area number not in use.)

Fire Area	Affect of Loss of Equipment in Area
101 Channel C Non-Essential Equipment Room	This area contains non-essential electrical equipment for Channel C. Loss of all equipment in this area due to fire would not prevent achieving safe shutdown. Redundant functionality exists in Channel A in Division I, and in Channels B & D in Division II.
102 Channel D Non-Essential Equipment Room	This area contains non-essential electrical equipment for Channel D. Loss of all equipment in this area due to fire would not prevent achieving safe shutdown. Redundant functionality exists in Channel B in Division II, and in Channels A & C in Division I.
103 Fuel Pool Storage Area	This area contains no equipment necessary for safe shutdown.
104 Electrical Switchgear Room	This area does not contain equipment necessary to achieve safe shutdown.
105 HVAC Chase	This area contains no equipment necessary for safe shutdown.
106 Fuel Handling Area	This area contains no equipment necessary for safe shutdown.
107 Fuel Area Storage	This area contains no equipment necessary for safe shutdown.
108 Fuel Area Storage Room	This area contains no equipment necessary for safe shutdown.
109 Fuel Area Storage Room	This area contains no equipment necessary for safe shutdown.
110 Resin Storage Area	This area contains no equipment necessary for safe shutdown.
111 Equipment Decontamination Area	This area contains no equipment necessary for safe shutdown.

Fire Area	Affect of Loss of Equipment in Area
112 Electrical Switchgear Room	This area does not contain equipment necessary to achieve safe shutdown.
113 Hot Machine Shop	This area does not contain equipment necessary to achieve safe shutdown.
114 Stairway	This area contains no equipment necessary for safe shutdown. It does support personnel access, however. Alternate personnel access paths are provided by the elevator located adjacent to the stairway in a separate fire area, and by stairways and elevators accessed by the same personnel access corridors.
115 General Storage Area	This area contains no equipment necessary for safe shutdown.
116 Area Number Reserved	(Area number not in use.)
117 Tool Room	This area includes a reserved area for Channel B cable and may contain Channel B cable. Loss of all cable in this room to a fire will not prevent achieving safe shutdown. In the event functions supported by cables in this room are lost as a result of a fire, redundant functionality is provided in Channel D of Division II, and in Channels A and C of Division I.
118 Hot Tool Crib	This area contains no equipment necessary for safe shutdown.
119 Emergency Supply Storage Room	This area contains no equipment necessary for safe shutdown.
120 Area Number Reserved	(Area number not in use.)
121 Document Room	This area contains no equipment necessary for safe shutdown.

Fire Area	Affect of Loss of Equipment in Area
122 Storage Area	This area includes a reserved area for Channel A cable and may contain Channel A cable. Loss of all cable in this room to a fire will not prevent achieving safe shutdown. In the event functions supported by cables in this room are lost as a result of a fire, redundant functionality is provided in Channel C of Division I, and in Channels B and D of Division II.
123 Control Room and Technical Services Center	This area includes the Control Room and associated support areas. Equipment in this area is important to safe shutdown. In the event a fire in this area causes complete loss of all equipment in the control room, safe shutdown may still be achieved by means of the safe shutdown panel. This control center, located in a separate fire area, contains redundant controls and indicators required to accomplish a safe shutdown.
124 Computer Room	This area contains no equipment necessary for safe shutdown.
125 Janitorial Storage Room	This area contains no equipment necessary for safe shutdown.
126 Area Number Reserved	(Area number not in use.)
127 Storage Area	This area contains no equipment necessary for safe shutdown.
128 Subsphere Exhaust Room	This area contains HVAC exhaust fan equipment for Division I subsphere areas. In the event a fire in this room eliminated the capability to support this function, the ability to achieve safe shutdown would not be eliminated since redundant functionality is supported in Division II systems.

Fire Area	Affect of Loss of Equipment in Area
129 Area Number Reserved	(Area number not in use.)
130 VCT,Boric Acid Tank & Drum Storage Area	This area contains the Volume Control Tank and boric acid batching equipment which is not necessary for safe shutdown.
131 Personnel Decontamination Area and Access Aisle	This area contains no equipment necessary for safe shutdown.
132 Hot Instrument Shop	This area contains no equipment necessary for safe shutdown.
133 Subsphere Exhaust Room	This area contains HVAC exhaust fan equipment for Division II subsphere areas. In the event a fire in this room eliminated the capability to support this function, the ability to achieve safe shutdown would not be eliminated since redundant functionality is supported in Division I systems.
134 Area Number Reserved	(Area number not in use.)
135 Personnel Access Aisle	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant functionality exists in Channel B of Division II. This area is an aisleway which provides access to Division I Subsphere HVAC equipment and to the Division I Main Steam Valve House. In the event a fire in this aisleway blocks access to the HVAC rooms, redundant functionality exists in Division II. In the event a fire blocks access to the Main Steam Valve House, an alternative access route is available from elevation 130.

Fire Area	Affect of Loss of Equipment in Area
136 Personnel Access Aisle	Loss of all equipment in this area will not prevent achieving a safe shutdown. Redundant functionality exists in Channel A of Division I. This area is an aisleway which provides access to Division II Subsphere HVAC equipment and to the Division II Main Steam Valve House. In the event a fire in this aisleway blocks access to the HVAC rooms, redundant functionality exists in Division I. In the event a fire blocks access to the Main Steam Valve House, an alternative access route is available from elevation 130.
137 Personnel Access Aisle	This area contains no equipment necessary for safe shutdown.
138 Operational Support Center AMU Room	This area contains the AMU for the Operational Support Center. It does not contain equipment necessary to achieve and maintain safe shutdown.
139 Operational Support Center	This area does not contain equipment necessary to achieve and maintain safe shutdown.
140 Technical Support Area Conference Room	This area does not contain equipment necessary to achieve and maintain safe shutdown.
141 Area Number Reserved	(Area number not in use.)
142 Technical Service Center Mechanical Room	This area contains HVAC equipment to support the Technical Service Center. This area is not required to achieve and maintain safe shutdown.
143 Area Number Reserved	(Area number not in use.)

Fire Area	Affect of Loss of Equipment in Area
144 Nuclear Annex HVAC Mechanical Room	This area contains Nuclear Annex Supply HVAC equipment. Fire in this area will not prevent achieving a safe shutdown. Redundant functionality is contained in Division II.
145 Annulus HVAC Mechanical Room	This area contains Annulus HVAC equipment. Fire in this area will not prevent achieving a safe shutdown. Redundant functionality is contained in Division II.
146 Personnel Access Aisle	This area contains no equipment necessary for safe shutdown. This area is an aisleway which provides access to Division I Nuclear Annex HVAC equipment. In the event a fire in this aisleway blocks access to the HVAC rooms, redundant functionality exists in Division II.
147 Personnel Access Aisle	This area contains no equipment necessary for safe shutdown. This area is an aisleway which provides access to Division II Nuclear Annex HVAC equipment. In the event a fire in this aisleway blocks access to the HVAC rooms, redundant functionality exists in Division I.

Fire Area	Affect of Loss of Equipment in Area
148 Nuclear Annex HVAC Exhaust Mechanical Room I	This area contains Nuclear Annex Exhaust HVAC equipment supporting non-essential areas of the Nuclear Annex. A fire in this area will not prevent achieving and maintaining a safe shutdown.
149 Nuclear Annex HVAC Exhaust Mechanical Room II	This area contains Nuclear Annex Exhaust HVAC equipment supporting non-essential areas of the Nuclear Annex. A fire in this area will not prevent achieving and maintaining a safe shutdown.
150 Nuclear Annex HVAC Supply Mechanical Room	This area contains Nuclear Annex Supply HVAC equipment supporting non-essential areas of the nuclear Annex Building. Fire in this area will not prevent achieving or maintaining safe shutdown.
151 Nuclear Annex HVAC Mechanical Room	This area contains Nuclear Annex HVAC Mechanical equipment supporting non-essential areas of the Nuclear Annex Building. Fire in this area will not prevent achieving a safe shutdown.
152 Instrument Calibration Shop	This area contains no equipment necessary for safe shutdown.
153 Annulus HVAC Mechanical Room	This area contains Annulus HVAC equipment. Fire in this area will not prevent achieving a safe shutdown. Redundant functionality is contained in Division I.
154 Area Number Reserved	(Area number not in use.)

Fire Area	Affect of Loss of Equipment in Area
155 Area Number Reserved	(Area number not in use.)
156 Hot Tool Crib	This area contains no equipment necessary to achieve and maintain a safe shutdown.
157 Hot Tool Crib	This area contains no equipment necessary to achieve and maintain a safe shutdown.
158 Personnel Decon, Storage, Laydown & Work Area	This area contains no equipment necessary for safe shutdown.
159 Personnel Access Aisle	This area contains no equipment necessary to achieve and maintain a safe shutdown. It does provide access to the containment via the personnel air lock. A fire in this area will not prevent achieving and maintaining a safe shutdown.
160 Area Number Reserved	(Area number not in use.)
161 Personnel Access Aisle	This area contains no equipment necessary to achieve and maintain a safe shutdown. A fire in this area will not prevent achieving and maintaining a safe shutdown.
162 Fuel Pool HVAC Exhaust Mechanical Room	This area contains no equipment necessary for safe shutdown.
163 HVAC Mechanical Room	This area contains no equipment necessary for safe shutdown.
164 Area Number Reserved	(Area number not in use.)
165 Nuclear Annex HVAC Mechanical Room	This area contains Nuclear Annex Exhaust HVAC equipment supporting non-essential areas of the Nuclear Annex. A fire in this area will not prevent achieving and maintaining a safe shutdown.

Fire Area	Affect of Loss of Equipment in Area
166 Component Cooling Water Surge Tank Room	This area contains the Component Cooling Water Surge tank for Division I. fire in this area may affect the functionality of the Component Cooling Water Surge Tank Vacuum Breakers and adversely affect the operation of the division's component cooling water system, but the redundant component cooling water system functionality will be available in the Division II system. A fire in this area will not prevent achieving and maintaining a safe shutdown.
167 Component Cooling Water Surge Tank Room	This area contains the Component Cooling Water Surge tank for Division II. A fire in this area may affect the functionality of the Component Cooling Water Surge Tank Vacuum Breakers and adversely affect the operation of the division's component cooling water system, but the redundant component cooling water system functionality will be available in the Division I system. A fire in this area will not prevent achieving and maintaining a safe shutdown.
168 Fuel Pool HVAC Supply & Exhaust Area	This area contains no equipment necessary for safe shutdown.
169 Area Number Reserved	(Area number not in use.)
170 Area Number Reserved	(Area number not in use.)
171 Area Number Reserved	(Area number not in use.)
172 Area Number Reserved	(Area number not in use.)
173 Area Number Reserved	(Area number not in use.)
174 Area Number Reserved	(Area number not in use.)

Fire Area	Affect of Loss of Equipment in Area
175 Personnel Access Aisle (tentative assignment)	This area contains no equipment necessary for safe shutdown.

6.0 List of Assumptions

The following assumptions have been made in association with the analysis:

1. Equipment labelled "Spare" is assumed to be not necessary to support safe shutdown. It is assumed that the primary equipment is operational.

2. Channel X equipment, multiplexers,and Motor Control Centers are assumed to be not necessary for safe shutdown.

3. Channel Y equipment, multiplexers,and Motor Control Centers are assumed to be not necessary for safe shutdown.

4. Channel A equipment, multiplexers, and Motor Control Centers are assumed to be necessary for safe shutdown.

5. Channel B equipment, multiplexers, and Motor Control Centers are assumed to be necessary for safe shutdown.

6. Channel C equipment multiplexers, and Motor Control Centers are assumed to be necessary for safe shutdown.

7. Channel D equipment, multiplexers, and Motor Control Centers are assumed to be necessary for safe shutdown.

8. HVAC is required for areas containing electrical equipment necessary for safe shutdown.

9. Control Room fire is assumed to be discovered early by control room personnel and either suppressed or shutdown activities are removed to an alternate shutdown facility in a different fire area.

10. Control Room HVAC is provided by redundant HVAC systems with supply of each drawn from different divisions.

11. All Fire Doors, Penetrations, HVAC Dampers, fire walls and other barriers which provide separation between fire areas are 3-hour fire-rated.

12. A fire in a fire area does not propagate beyond the area due to the presence of 3 hour fire-rated barriers between adjacent fire areas.

13. A fire in an area affects only the equipment specifically contained in that area. This equipment is assumed to rendered inoperable by the fire. Cable, Pipes, and HVAC ducts which pass through the fire area are assumed to be sufficiently protected by fire barriers so as to not be impacted.

14. Pipe chases contain only piping. No instrumentation, cable, valves, or other components are located in pipe chases.

15. HVAC Chases contain only HVAC ductwork and dampers. No instrumentation, cable, valves, or other components are located in HVAC chases.

16. No HVAC dampers exist in barriers which separate redundant divisions of safety related equipment.

17. Smoke control design prevents the migration of smoke from the area of fire origin into adjacent areas.

18. Ventilation systems are division-specific so fire or smoke from a fire in an area cannot migrate through the ventilation ducts to area in the redundant division.

19. Fresh air intakes are situated so as to preclude the possibility of contaminating the intake air with the products of combustion.

20. Stairwells in the Nuclear Annex are individually pressurized with roof-mounted fans to preclude smoke infiltration.

21. The analysis assumes loss of all equipment in a particular fire area to a fire, that a fire does not propagate beyond the area, and that all redundant systems and equipment are operable and available to perform the required functions.

22. Main Steam Isolation Isolation Valves fail closed.

7.0 References

The following references have been used in this analysis:

7.1 Fire Hazards Assessment, ABB Combustion Engineering/U.S. Department of Energy Advanced Light Water Reactor Certification Program, Volumes 1 - 5, March 13, 1992, by Duke Engineering Services, Inc.

7.2 CESSAR-DC.

7.3 Drawing K200-01 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 50+0.

7.4 Drawing K200-02 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 70+0.

7.5 Drawing K200-02-01 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 81+0.

7.6 Drawing K200-03 (4248-00-1607.00), Rev. 0 Nuclear Island Fire Barrier Locations Plan at Elevation 91+9.

7.7 Drawing K200-04 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 115+6.

7.8 Drawing K200-05 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 130+6.

7.9 Drawing K200-06 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 146+0.

7.10 Drawing K200-07 (4248-00-1607.00), Rev. 0, Nuclear Island Fire Barrier Locations Plan at Elevation 170+0.