

Part II

APPENDIX 2

Fire and Emergency Power Response Matrix

--SAMPLE--

Fire and Emergency Power Response Matrix

Component	Response to Fire / Smoke Alarm			Response to a Street Power Outage		
	Alarm Type-1: Any Fire Alarm in Bldg ¹ (unless noted)	Alarm Type-2:	Controls to Use & Reset, (Manual, BAS, etc.)	Response	Controls to Use (Manual, BAS, etc.)	Manual Reset Reg'd?
Rooftop units-1,2,3;4:						
Start / Stop	Shutdown		Off--no control. Reset varies: ²	Shutdown	none	No, but smoke dprs must be open
Dampers	Go to normal: OA is closed RA is open EA is closed		na	Go to Normal	none	No
Terminal Units	Dampers: 100% open Valves: no change		na	Dampers: stop where they are Valves: open	none	No
Split FCU-2; ACU-1	none		Normal (manual)	None (go on emergency power)	Normal (manual)	na
BAS	Receive and log an alarm		Normal	None (goes on own battery backup)	Off	na
Exh. Fans EF-1a,b, 2, 3	Off with RTU's		Override in BAS	Off	none	No
Exh. Fans EF-1c; 4	none		Normal	Off	none	Manual Timers
Boiler	none		Normal	Off	none	No
Boiler pumps	none		Normal	Off	none	No
CUH's	none		Normal	Off	none	No
Elevators	<u>Any general alarm:</u> go to 1st floor. <u>SD in elev. shaft or equip. room:</u> go to 2nd floor. <u>SD in front of elev. on 1st floor:</u> go to 2nd floor. <u>Heat det. in shaft or equip. rm.:</u> shunt trip elev. off.		Manual	Lights ON; car stops where it is	none	No
Med-Gas Vac. compr	none		Normal	Off	none	No
Med-Gas Gas compr	none		Normal	Off, but medgas alarm on emerg. gen	none	No

Part II. Commissioning Plan–Design Phase
Appendix 2. Fire and Emergency Power Response

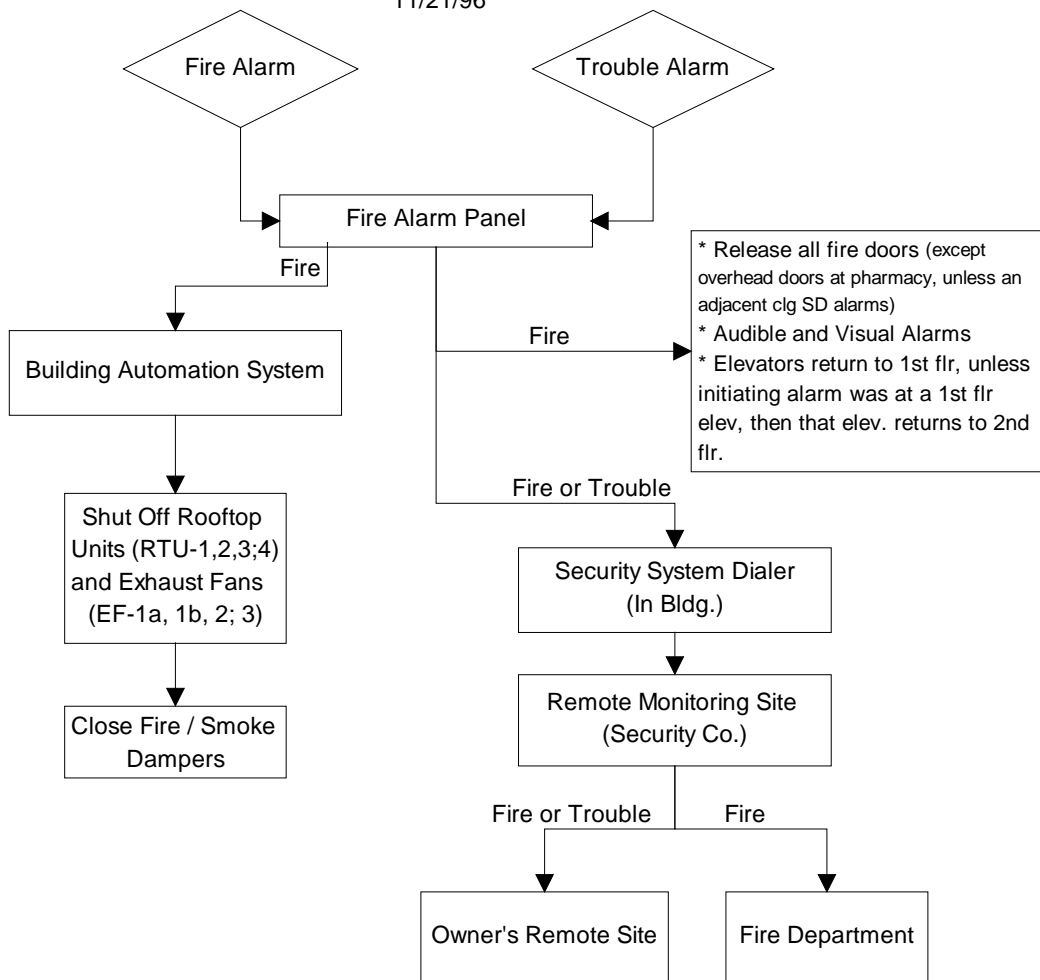
Normal Lighting Sys.	none		Normal	Off	none	No
Emerg. Lighting Sys.	none		Normal	None: goes on emerg. power	BAS	nao
Data Management	none		Normal	None: goes on emerg. power+UPS	Normal	na
Paging System	none		Normal	Off	none	No
Security System	Operates per normal, sending alarms		Normal	None: goes on emerg. power + on battery backup	Normal	na
Fire/Smoke Dampers	All close		auto-reset if fusible link didn't release	None: slowly leak down and close	Normal	na
Fire Doors	All close, except OH doors at pharmacy, unless 1 of 3 adjacent clg. SD alarms		manually reset	None: goes on emerg. power + on battery backup	na	na
Emerg. Gen. & UPS	none		na	Goes on-line & alarms to Security	Normal	na
Emerg. Pwr. Circuits	none		na	None: go on emerg. power	Normal	na
Fire Alarm System Functions	normal operation		na	None: goes on emerg. power + on battery backup	Normal	na
Communications to BAS	alarm sent to BAS from FAP		na	None	na	na
Communication to Outside						
Owner's Site	gets fire and trouble message via Sec. Co.		na	gets message via Security Co.	na	na
Owner's Secur	gets fire and trouble message via in-bldg Security Co's dialer		na	gets message via in-bldg Security Co. dialer, due to UPS starting`	na	na
Fire Dept.	fire alarm via Sec. Co		na	none	na	na

¹Any Fire Alarm: (pull station, space or duct smoke detector, heat detector or sprinkler flow). This does not include trouble alarms or release of fusible links in fire dampers, or heat detection and smoke detector in elevator shaft or equipment rooms. A smoke detector trip in the elevator shaft or equipment room causes elevator to go to 2nd floor.

²A duct detector trip will cause a general alarm and will shut down all RTU's. Only RTU associated with tripped detector requires manual reset at the RTU panel. On a normal general alarm, all RTU's are automatically reset upon resetting the fire alarm panel.

--Sample--
Fire Alarm Sequence Flow Chart

11/21/96



Fire Alarm includes any initiating event (pull station, space or duct smoke detector, heat dector or sprinkler flow). It does not include fire damper fusible link release of a fire damper. Heat detector in elevator equip. room or shaft has 30 sec.delay to allow recall to floors, then power to elevator is shunt-tripped off.
Trouble Alarm includes any of the troubles listed in Appendix M of the FAP O&M.

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Part II. Commissioning Plan–Design Phase
Appendix 2. Fire and Emergency Power Response