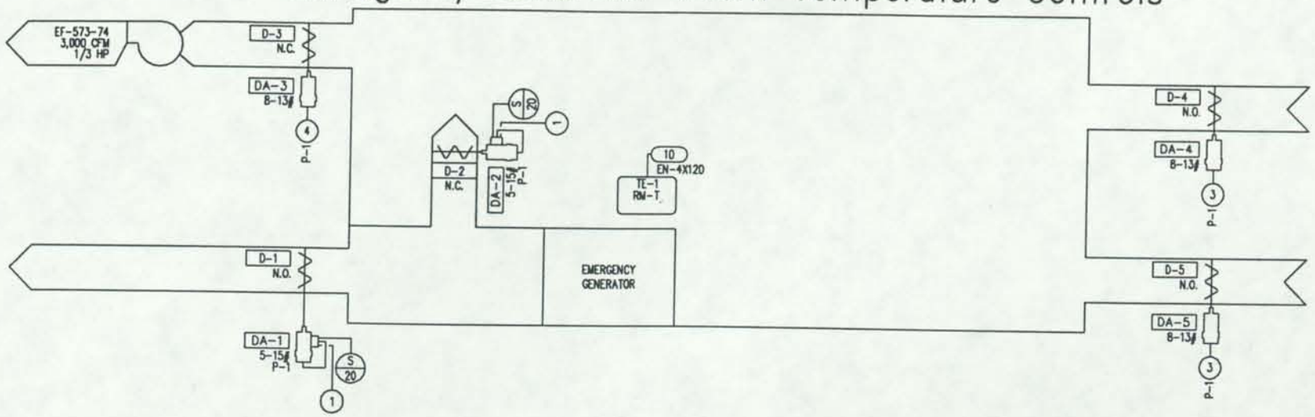
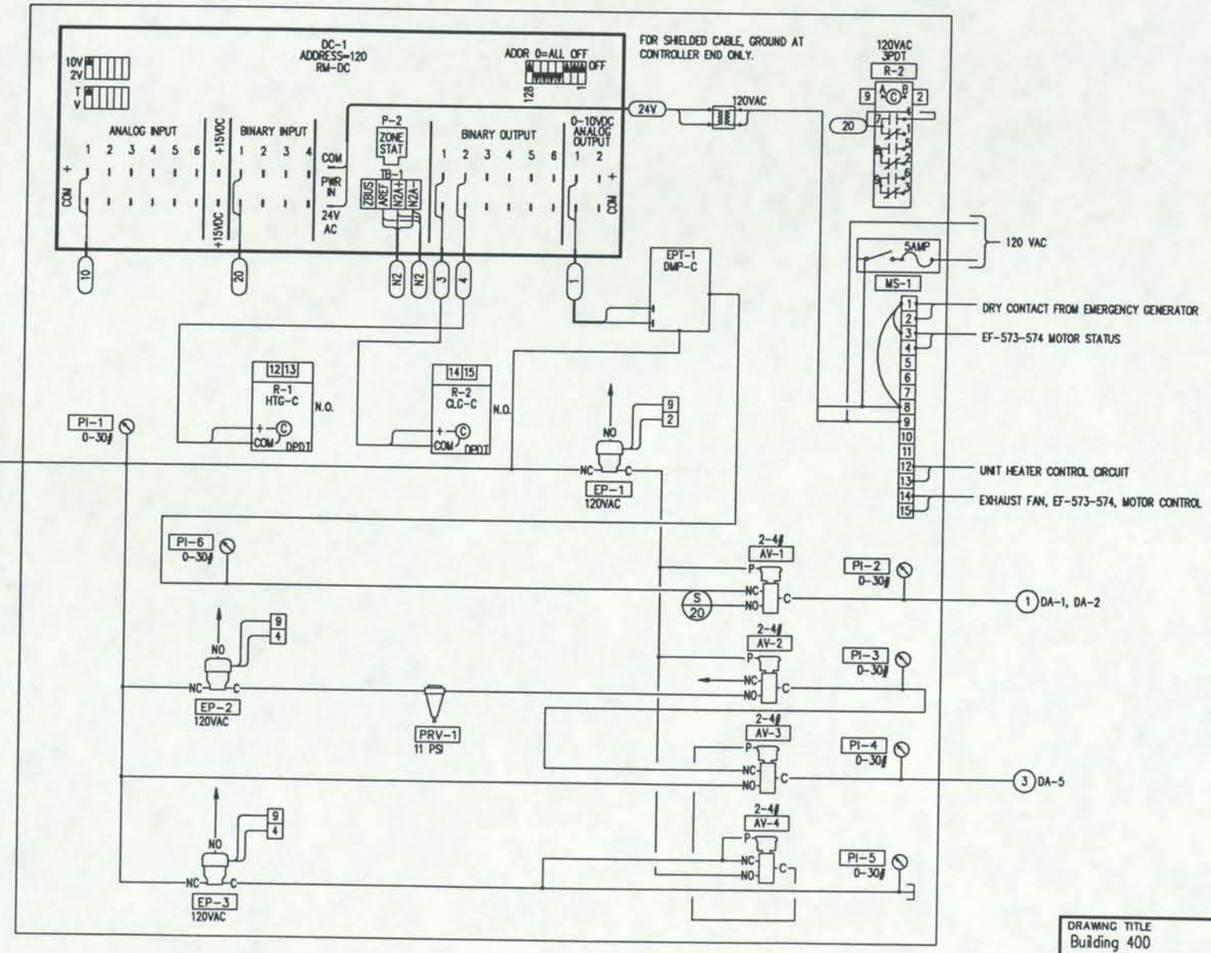
Emergency Generator Room Temperature Controls

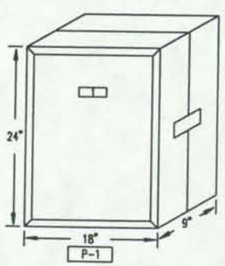




Nametag Schedule

Item	Device Tag	Nametag Description
1	P-1	ARGONNE NATIONAL LABS BUILDING 400 EM GEN/EN-40120

Item	Device Tag	Nametag Description
1	P-1	ARGONNE NATIONAL LABS BUILDING 400 EM GEN/EN-45120



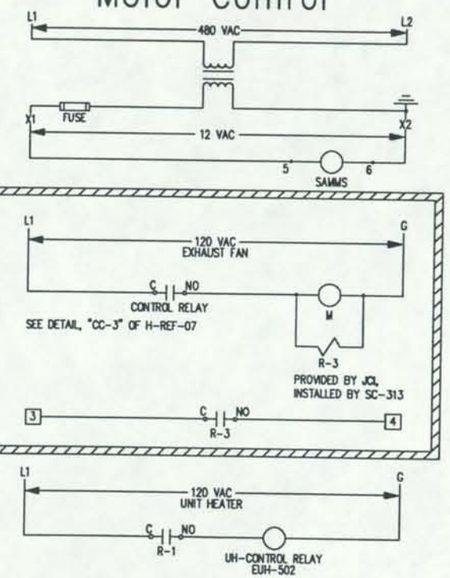
FIELD MATERIAL

DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
D-1-D-5		----	SEE DAMPER SCHEDULE
DA-1-DA-2, DA-5		----	SEE DAMPER SCHEDULE
DA-3-DA-4		----	SEE DAMPER SCHEDULE
TE-1	2	TE-6000-4	SENSOR, 1000 OHM +/- .25%
	2	T-4000-2139	COVER PLAS HRZ CONC NO-T
	2	TE-6001-4	ELEMENT HOLDER F/TE &

PANEL MATERIAL

DEVICE TAG	QTY	CODE NUMBER	DESCRIPTION
(P) ACC	2	M-8000-393	SCREW-ON LAMCOID NAME-
(P) ACC	30	PD-113-3	TERMINAL BLOCK; MEDIUM
(P) AV-1	6	V-6135-1	AIR SV. VALVE, 3-WAY
(P) DC-1	2	AS-UNT101-0	UNITARY C W/O ENC 6BO&2AO
	2	Y65AR-1C	TRANSFORMER
(P) EP-1-EP-2	6	V-2410-2	VALVE, SOL.AIR, 3-WAY
(P) MS-1	2	PD-112-22	BUSS SSU FUSE HOLDER/
	2	PD-112-23	FUSE T-5 (5AMP) FOR
(P) P-1	2	M-8100-1824	CONTROL CABINET;STD. FACE
(P) PI-1-PI-6	12	G-2010-5	AIR GAGE 1-1/2'
(P) EPT-1	2	EP-8000-2	EP TRANSDUCER; 0/10V HI
(P) R-1	2	PD-109-2	RELAY; DPDT, 25AMP, 24VAC
(P) PRV-1	2	R-130-1	1/8 INCH PRV
(P) R-2	2	PD-109-20	RELAY
	2	PD-101-35	BASE

Motor Control



SEQUENCE OF OPERATIONS

GENERAL

The Energency Generator room space temperature will be globally available at any ISC operator interface. A low temperature alarm will be issued in the event that the space temperature drops below 45 F.(adjustable).

EMERGENCY GENERATOR OFF

Digital controller, EN-4X120, will sequence the operation of exhuast fan, EF-573-74 and electric unit heater to maintain a space temperature setpoint of 50 F.(adjustable at ICS) Fresh air damper actuators, DA-3 and DA-4 will open to 10 percent(adj.) with the start of exhaust fan, EF-573-74.

EMERGENCY GENERATOR ON

Digital controller, EN-4X120, will modulate discharge and exhaust air damper actuators, DA-1 and DA-2 proportionally to maintain a space temperature of 50 F.(adjsutable) Fresh air dampers, D-4 and D-5 will open to 100 percent upon the emergency generator being started. The operation of the exhaust fan and the unit heater will remain the same as above.

Generator status will be sent to the ICS network.

NOTES:

1. All material designated with (P) preceeding the device tag in the Bill of Material is proprietary and is being supplied by Johnson Controls, Inc. All other material is considered non-proprietry.

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DRAWING TITLE
Building 400
Emergency Generator Rooms
ICS Temperature Controls
Flow Diagram and Panel Detail

REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
	4	GENERAL		03/01/94	SF
	3	GENERAL		09/09/93	SF
	2	GENERAL		01/04/93	SF

SALES ENGR	PROJECT MGR	APPL. ENGR	DRAWN		APPROVED	
JP	SF	DCS	BY SF	DATE 12/18/91	BY	DATE

FILE: 400_EGEN
DCODE: 19940909.1320

PROJECT
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