OREGON STATE CORRECTIONAL INSTITUTION
PHASE III ENERGY PROJECT

BID PACKAGE B

DRAWING LIST:

M-1 – SYMBOLS/ABBREVIATIONS
M-2 – CONTROL DIAGRAMS

SYMBOLS:

NC – NORMAL CLOSED
AO – ANALOG OUT
AI – ANALOG IN
CO – CONTACT OUT
CI – CONTACT IN
T – TEMPERATURE
RHC – REHEAT COIL
PHC – PREHEAT COIL
HC – HEATING COIL
DMS – DIGITAL MANAGEMENT SYSTEM
DDC – DIRECT DIGITAL CONTROL
DP – DIFFERENTIAL ELECTRIC PRESSURE SWITCH ACROSS FAN
DW – DIFFERENTIAL ELECTRIC PRESSURE SWITCH IN PIPE
PS – PRESSURE SWITCH
FT – ELECTRICAL FREEZE-STAT (AUTO RESET)
MFT – ELECTRICAL FREEZE-STAT (MANUAL RESET)
TH – USER ADJUSTABLE THERMOSTAT
TL – REMOTE ADJUSTABLE THERMOSTAT
TE – ELECTRONIC TEMPERATURE SENSOR (AIR)
TW – ELECTRONIC TEMPERATURE SENSOR (WATER)
HE – ELECTRONIC HUMIDITY SENSOR (AIR)
AR – REMOTE RESET POTENTIOMETER
R – START-STOP RELAY
SV – STEAM VALVE
TO – ELECTRONIC REMOTE TEMPERATURE LED
HO – ELECTRONIC REMOTE HUMIDITY LED

SF#1 – OLD EQUIPMENT NUMBER

19-6 – POINT NUMBER

DIRECT DIGITAL CONTROL SYSTEM POINT IDENTIFICATION

SYSTEM POINT DESCRIPTION	POINT NUMBER	INPUTS BINARY DP	DW	PS	MFT	FT	INPUTS ANALOG TH	TL	TE	HS	HE	AR	OUTPUTS BINARY R		OUTPUTS ANALOG V	SV	TO	HO	SHT REF
UNIT 1																			
SF-1	1-1	X						X	X			X	X			X			
	1-2							X	X							X			
EF-15	1-3	X											X						
EF-20	1-4	X											X						
EF-21	1-5	X											X						
UNIT 2																			
SF-2	2-1	X						X	X			X	X			X			
	2-2							X	X							X			
CUH-150	2-3	X					X		X				X			X			
EF-22	2-4	X											X						
EF-23	2-5	X											X						
UNIT 3																			
SF-3	3-1	X						X	X			X	X			X			
CUH-151	3-2	X					X		X				X			X			
EF-24	3-3	X											X						
UNIT 4																			
SF-4	4-1	X						X	X			X	X			X			
CUH-151	4-2	X					X		X				X			X			
EF-26	4-3	X											X						

DIRECT DIGITAL CONTROL SYSTEM POINT IDENTIFICATION

SYSTEM POINT DESCRIPTION	POINT NUMBER	INPUTS BINARY DP	DW	PS	MFT	FT	INPUTS ANALOG TH	TL	TE	TW	HE	AR	OUTPUTS BINARY R		OUTPUTS ANALOG V	SV	TO	HO	SHT REF
UNIT 5																			
SF-5-1	5-1	X						X	X			X	X			X			
	5-2							X	X							X			
SF-5-2	5-3	X						X	X			X	X			X			
	5-4							X	X							X			
RUNAROUND SYSTEM	5-5		X						X										
									X	X									
EF-28	5-6	X											X						
UNIT 6																			
H&V - 75	7-1	X										X	X			X			
	7-2							X	X							X			
EF-30	7-3	X						X	X				X						
EF-31	7-4	X											X						
UNIT 7																			
H&V -76	7-1	X						X	X			X	X			X			
H&V -77	7-2	X						X	X			X	X			X			
	7-3							X	X							X			
EF-32	7-4	X											X						
EF-33	7-5	X											X						
EF-34	7-6	X											X						
UNIT 8																			
SF-10 (1)	8-1	X						X	X			X	X			X			
SF-10 (2)	8-2	X						X	X			X	X			X			
SF-10 (3)	8-3	X						X	X			X	X			X			
SF-11	8-4	X						X	X			X	X			X			
SF-12	8-5	X						X	X			X	X			X			

DIRECT DIGITAL CONTROL SYSTEM POINT IDENTIFICATION

SYSTEM POINT DESCRIPTION	POINT NUMBER	INPUTS BINARY DP	DW	PS	MFT	FT	INPUTS ANALOG TH	TL	TE	TW	HE	AR	OUTPUTS BINARY R		OUTPUTS ANALOG V	SV	TO	HO	SHT REF
SF-13	8-6	X						X	X			X	X			X			
	8-7							X	X							X			
SF-14	8-8	X						X	X			X	X			X			
	8-9							X	X							X			
H&V -78	8-10	X						X	X			X	X			X			
	8-11							X	X							X			
EF-37	8-12	X											X						
EF-38	8-13	X											X						
EF-39	8-14	X											X						
EF-40	8-15	X											X						
EF-41	8-16	X											X						
EF-42	8-17	X											X						
EF-43	8-18	X											X						
EF-44	8-19	X											X						
UNIT 9																			
SF-9	9-1	X						X	X			X	X			X			
	9-2							X	X							X			
H&V -79	9-3	X						X	X			X	X			X			
	9-4							X	X							X			
EF-17	9-5	X											X						
EF-49	9-6	X											X						
EF-50	9-7	X											X						
EF-51	9-8	X											X						
EF-52	9-9	X											X						
EF-53	9-10	X											X						
EF-54	9-11	X											X						
EF-55	9-12	X											X						

DIRECT DIGITAL CONTROL SYSTEM POINT IDENTIFICATION

SYSTEM POINT DESCRIPTION	POINT NUMBER	INPUTS BINARY DP	DW	PS	MFT	FT	INPUTS ANALOG TH	TL	TE	TW	HE	AR	OUTPUTS BINARY R		OUTPUTS ANALOG V	SV	TO	HO	SHT REF
UNIT 10																			
H&V -1	10-1	X						X	X			X	X			X			
	10-2							X	X							X			
CUH-152	10-3	X						X	X			X	X			X			
CUH-153	10-4	X						X	X			X	X			X			
EF-18	10-5	X											X						
EF-56	10-6	X											X						
EF-57	10-7	X											X						
EF-58	10-8	X											X						
EF-59	10-9	X											X						
EF-60	10-10	X											X						
EF-61	10-11	X											X						
EF-62	10-12	X											X						
UNIT 11																			
SF-11	11-1	X						X	X			X	X			X			
CUH-154	11-2	X						X	X			X	X			X			
EF-63	11-3	X											X						
EF-64	11-4	X											X						
UNIT 13																			
H&V 13A	13-1	X						X	X			X	X			X			
H&V 13B	13-2	X						X	X			X	X			X			
EF-65	13-3	X											X						
EF-66	13-4	X											X						

DIRECT DIGITAL CONTROL SYSTEM POINT IDENTIFICATION

SYSTEM POINT DESCRIPTION	POINT NUMBER	INPUTS BINARY DP	DW	PS	MFT	FT	INPUTS ANALOG TH	TL	TE	TW	HE	AR	OUTPUTS BINARY R		OUTPUTS ANALOG V	SV	TO	HO	SHT REF
UNIT 17																			
SF-17	17-1	X						X	X			X	X						
	17-2							X	X							X			
CUH-155	17-3	X						X	X			X	X			X			
UNIT 19																			
SF-19A , SF-19B	19-1	X						X	X			X	X			X			
SF-19C	19-2	X						X	X			X	X						
	19-3							X	X							X			
SF-19D	19-4	X						X	X			X	X			X			
SF-19E , SF-19F	19-5	X						X	X			X	X			X			
SF-19G	19-6	X						X	X			X	X						
	19-7							X	X							X			
SF-19H , SF-19I	19-8	X						X	X			X	X			X			
	19-9							X	X							X			
SF-19J	19-10	X						X	X			X	X			X			
SF-19K	19-11	X						X	X			X	X			X			
SF-19L	19-12	X						X	X			X	X			X			
SF-19M	19-13	X						X	X			X	X			X			
SF-19N	19-14	X						X	X			X	X			X			
SF-19O	19-15	X						X	X			X	X			X			
SF-19P	19-16	X						X	X			X	X			X			
SF-19Q	19-17	X						X	X			X	X			X			
SF-19R	19-18	X						X	X			X	X			X			
SF-19S	19-19	X						X	X			X	X			X			

NO.	DESCRIPTION OF REVISION	DATE

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OREGON STATE CORRECTIONAL INSTITUTION
ENERGY PROJECT PH. 3
SALEM, OREGON

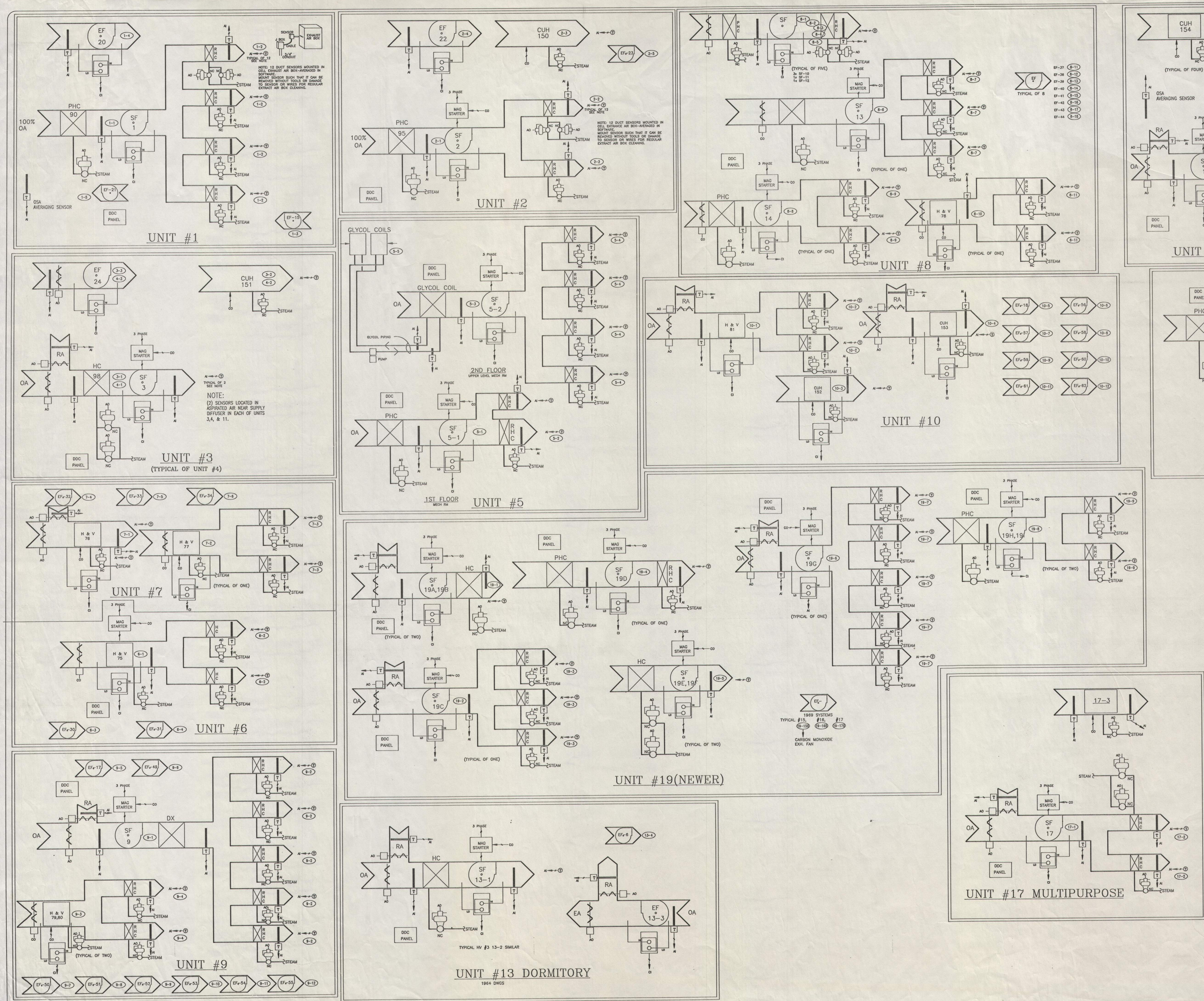
SYMBOLS & ABBREVIATIONS

SEAL
REGISTERED PROFESSIONAL ENGINEER 5720 OREGON JULY 8 1966 W. ALAN GOLD

DESIGN	RP
DRAWN	SCB
CHECKED	RP
APPROVED	WAG
DATE	8/13/92
SCALE	1/16" - 1'

SHEET NUMBER
M1
JOB NO. 3-92085-01

SYMBOLS & ABBREVIATIONS
08-26-1992 0831 hours
C:\PR\OSCI\M1B



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OREGON STATE CORRECTIONAL INSTITUTION
ENERGY PROJECT PH. 3
SALEM, OREGON

CONTROL DIAGRAMS

SEAL	DESIGN RP		SHEET NUMBER
	DRAWN SCB		M2
	CHECKED RP		
	APPROVED WAG		
	DATE 8/13/92		
	SCALE 1/4" = 1'	JOB NO. 3-92085-01	

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 8 1980
W. ALAN GOLD

Control Diagrams
08-13-1992 13:22 hours
C:\PR\OSCI\M2C