

DDC POINTS LIST

DESCRIPTION	DEVICE	INPUTS		OUTPUTS		ALARMS		REMARKS [NOTE 1]
		ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	
CHILLED WATER SYSTEM								
CHILLED WATER PUMPS – P-4, P-5, P-6, P-7(FUTURE)								
PUMP START/STOP	CR				X			
PUMP STATUS	CS	X				X		
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD SPEED %	AUX			X		X		
CHILLED WATER LOOP								
CHILLED WATER FLOW	FM	X				X		MAGNETIC FLOW METER
CHILLED WATER RETURN TEMPERATURE	TS	X				X		
CHILLED WATER SUPPLY TEMPERATURE	TS	X				X		
SYSTEM PRESSURE – 5TH FLOOR	DPS	X				X		
CHILLED WATER SYSTEM BYPASS – FLOW CONTROL VALVE	FCV			X				
CHILLER CONTROL– EACH CHILLER CH-1, CH-2, CH-3, CH-4(FUTURE)								
CWS TEMPERATURE	TS	X						NOTE 2
CWR TEMPERATURE	TS	X						
CWR FLOW CONTROL VALVE	ICV			X				GLOBE
CHILLER DIFFERENTIAL PRESSURE SENSOR	DPS	X				X		
CHILLER FLOW SWITCH	FS							FIELD INSTALL AND WIRE
CHILLER ENABLE/DISABLE	SS				X			NOTE 3
CHILLER STATUS	AUX		X					
CHILLER ALARM	AUX		X				X	NOTE 3
CHILLER KW	AUX	X				X		NOTE 6
CHILLER STARTER FAULT	AUX		X				X	NOTE 6
EVAPORATOR WATER PRESSURE (PSIA)	AUX	X				X		
CONDENSER WATER PRESSURE (PSIA)	AUX	X				X		
REMOTE CWS TEMPERATURE SETPOINT ADJUSTMENT	AUX			X				
EACH COMPRESSOR RUN TIME (HOURS)	AUX	X						
CHILLER DEMAIND LIMIT	AUX			X				
CONDENSER WATER SYSTEM								
PUMP CONTROL – EACH PUMP P-8, P-9, P-10, P-11(FUTURE)								
PUMP START/STOP	CR				X			
PUMP STATUS	CS	X				X		
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD SPEED %	AUX			X		X		
CONDENSER WATER LOOP								
MAKE-UP WATER FLOW (GALLONS)	PI		X					PULSE METER, NOTE 7
CS TEMPERATURE BEFORE CHILLERS	TS	X				X		
CS TEMPERATURE AFTER BYPASS	TS	X				X		
CR TEMPERATURE	TS	X				X		
WARM-UP BYPASS CONTROL VALVE	FCV			X				GLOBE VALVE
CHILLER CONTROL– EACH CHILLER CH-1, CH-2, CH-3, CH-4(FUTURE)								
CS TEMPERATURE	TS	X				X		
CR TEMPERATURE	TS	X				X		
CS ISOLATION VALVE	FCV			X				
CHILLER FLOW SWITCH	FS							FIELD INSTALL AND WIRE
COOLING TOWER CONTROL – EACH CELL CT-1, CT-2, CT-3, CT-4(FUT.)								
FAN VFDSTART/STOP	SS				X			
FAN VFD STATUS	CT		X				X	
FAN VFD SPEED CONTROL	AUX			X				
FAN VFD SPEED %	AUX			X		X		
CS CONTROL VALVE CONTROL & POSITION	ICV				X			2-POSTION BUTTERFLY VALVE
CR CONTROL VALVE CONTROL & POSITION	ICV				X			2-POSTION BUTTERFLY VALVE
CR CONTROL VALVE CONTROL & POSITION	ICV				X			2-POSTION BUTTERFLY VALVE
EQUALIZATION BRANCH CONTROL VALVE & POSITION	ICV				X			2-POSTION BUTTERFLY VALVE
BASIN LOW LEVEL ALARM	LS		X				X	
BASIN HIGH LEVEL ALARM	LS		X				X	
BASIN WATER TEMPERATURE	TS	X				X		
VIBRATION SWITCH ALARM	AUX		X				X	
WATER MAKE-UP SYSTEM								WIRE LEVEL CONTROL AND VALVE
BASIN HEATER								WIRE T'STAT AND CONTROL
PULSED POWER WATER TREATMENT SYSTEM ENABLE/DISABLE	CR				X			
PULSED POWER WATER TREATMENT SYSTEM STATUS	CS		X				X	
SAND FILTER SYSTEM – CTFS-1, CTFS-2								
ENABLE/DISABLE	CR				X			
PUMP STATUS	CS		X				X	
ALARM STATUS	A		X				X	
FILTER STATUS	DPH		X				X	
DRAIN FLOW (GALLONS)	PI		X					PULSE METER
PROCESS CHILLED WATER SYSTEM								
PROCESS CHILLER: PCH-1 (GLYCOL SYSTEM)								
PCWS TEMPERATURE	TS	X						
PCWR TEMPERATURE	TS	X						
PCWS FLOW	FS		X				X	NO FLOW
CHILLER ENABLE/DISABLE	CT				X			
CHILLER STATUS	AUX		X				X	
PROCESS CHILLED WATER SYSTEM GLYCOL FEED ALARM STATUS								
	AUX		X				X	
PROCESS CHILLED WATER PUMPS: P-16 AND P-17								
PUMP START/STOP	CR				X			
PUMP STATUS	CS	X				X		
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD STATUS	AUX			X		X		
CWR CONTROL VALVE	ICV				X			TWO POSITION BUTTERFLY VALVE
HEAT EXCHANGER PHX-1								
GLYCOL PCWS TEMPERATURE	TS	X						
GLYCOL PCWR TEMPERATURE	TS	X						
GLYCOL SIDE CONTROL VALVE	FCV			X				

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DESCRIPTION	DEVICE	INPUTS		OUTPUTS		ALARMS		REMARKS [NOTE 1]
		ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	
GLYCOL SIDE PRESSURE-INLET	PS		X			X		
GLYCOL SIDE PRESSURE-OUTLET	PS		X			X		
MEDICAL EQUIPMENT SIDE OF HEAT EXCHANGER								
NON-GLYCOL PCWS TEMPERATURE	TS	X						
NON-GLYCOL PCWR TEMPERATURE	TS	X						
NON-GLYCOL SIDE CONTROL VALVE	FCV			X				
NON-GLYCOL SIDE PRESSURE-INLET	PS		X			X		
NON-GLYCOL SIDE PRESSURE-OUTLET	PS		X			X		
NON-GLYCOL PCWS VALVE								
	ICV			X		X		VALVE IS CLOSED
CITY WATER BACK-UP SUPPLY VALVE								
	ICV			X		X		VALVE IS OPEN
CITY WATER BACK-UP DRAIN VALVE								
	ICV			X		X		VALVE IS OPEN
PROCESS CHILLED WATER PUMPS – P-18, P-19								
PUMP START/STOP	CR				X			
PUMP STATUS	CS	X				X		
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD STATUS	AUX			X		X		
DOMESTIC WATER HEATING SYSTEM								
WATER HEATER: DWH-1, DWH-2, DWH-3(FUT.), DWH-4(FUT.)								
ENABLE/DISABLE	CR				X			
STATUS	AUX		X				X	
ALARM STATUS	AUX		X				X	
CONTROL VALVE	FCV			X				NOTE 5
HOT WATER SUPPLY TEMPERATURE	TS	X				X		
PIPING SYSTEM								
HOT WATER SUPPLY TEMPERATURE	TS	X				X		
HOT WATER CIRC TEMPERATURE	TS	X						
COLD WATER SUPPLY TEMPERATURE	TS	X				X		
CIRC PUMP: P-14, P-15(FUTURE)								
ENABLE/DISABLE	CR				X			
PUMP STATUS	CS		X				X	
DOMESTIC WATER PRESSURE BOOSTER SYSTEM: bwp-1								
ENABLE/DISABLE	CR				X			
PUMP STATUS	CS		X				X	
SYSTEM PRESSURE-INLET	PS		X			X		
SYSTEM PRESSURE-OUTLET	PS		X			X		
WATER METER	FM		X					MAGNETIC FLOW METER
HEAT RECOVERY WATER SYSTEM								
PUMP CONTROL: P-12 AND P-13								
PUMP START/STOP	CR				X			
PUMP STATUS	CS	X				X		
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD STATUS	AUX			X		X		
HEAT RECOVERY WATER LOOP								
MAKE-UP WATER FLOW (GALLONS)	PI		X					
MAIN SUPPLY TEMPERATURE	TS	X				X		
MAIN RETURN TEMPERATURE	TS	X				X		
CONTROL VALVE	FCV			X				
HEAT RECOVERY GLYCOL FEED ALARM STATUS	AUX		X				X	
STEAM SYSTEM								
HIGH PRESSURE STEAM FLOW –UPSTREAM OF PRV STATION								
PRV ASSEMBLY PRESSURE-INLET	PS		X			X		INSERTION TURBINE METER
PRV ASSEMBLY PRESSURE-OUTLET	PS		X			X		
HEATING WATER SYSTEM CONTROL								
OFF-SEASON MODE STATUS								
OPERATOR WORKSTATION INPUT	AUX		X				X	HEATING/SUMMER
PUMPS – P-1, P-2, P-3								
PUMP VFD ENABLE/DISABLE	CR				X			
PUMP VFD SPEED CONTROL	AUX			X				
PUMP VFD SPEED (%)	AUX			X		X		
PUMP VFD STATUS	CS	X				X		
SYSTEM PRESSURE – LOCATED AT 5TH FLOOR	DPS	X				X		USED FOR PUMP CONTROL
CONVERTORS – EACH HE-1 AND HE-2								
1/3 STEAM CONTROL VALVE	TCV			X				
2/3 STEAM CONTROL VALVE	TCV			X				
INLET WATER TEMPERATURE	TS	X		X		X		
OUTLET WATER TEMPERATURE	TS	X		X		X		
PRESSURE-INLET	PS		X			X		
PRESSURE-OUTLET	PS		X			X		
PIPING SYSTEM								
MAIN SUPPLY WATER TEMPERATURE	TS	X		X		X		
MAIN RETURN WATER TEMPERATURE	TS	X		X		X		
CONDENSATE PUMPS: CP-1 AND CP-2								
HIGH LEVEL ALARM	TS	X		X		X		

NOTES:

1. PROVIDE ANY ADDITIONAL POINTS TO EXECUTE THE SEQUENCE OF OPERATIONS.
2. PROVIDE COMPATIBLE GATEWAY WITH CHILLER MANUFACTURER.
3. PROVIDE HARD-WIRED INTERFACE (INDEPENDENT OF GATEWAY).
4. PROVIDE VALVE POSITION INDICATION (% OF FLOW).
5. ELECTRONIC CONTROL VALVE SUPPLIED WITH WATER HEATER.
6. INCLUDE POINT ONLY IF AVAILABLE BY SOFTWARE FROM CHILLER CONTROL PANEL.
7. MONITOR THE ACCUMULATING METER PROVIDED FOR CONDENSER WATER MAKE-UP SYSTEM.