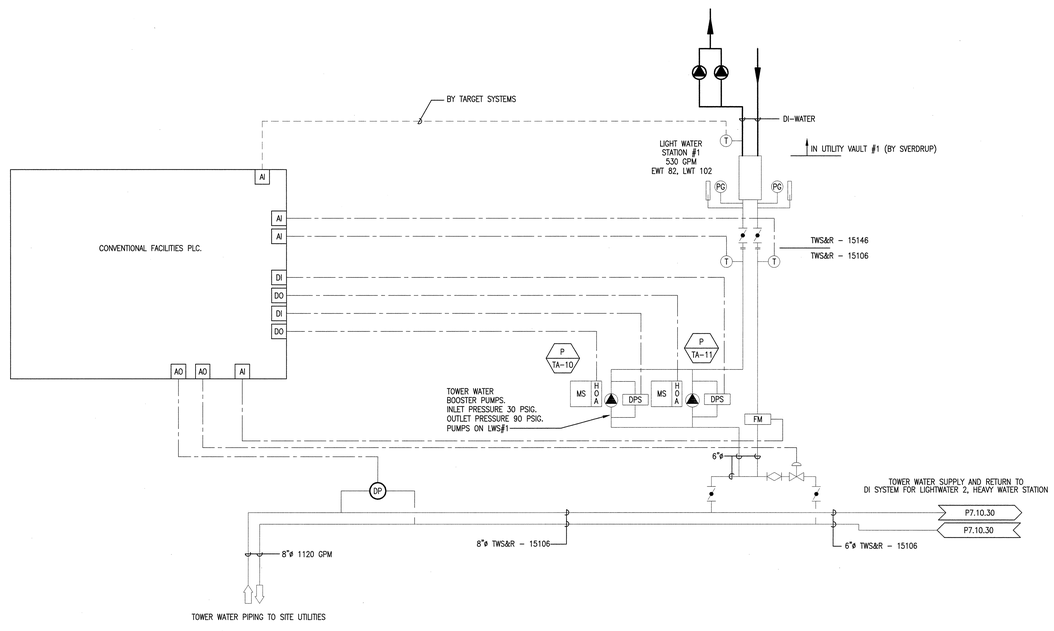
CONTROL POINT LIST - TARGET BUILDING TOWER WATER SYSTEM

BUILDING: TARGET BUILDING TOWER WATER SYSTEM

POINT DESCRIPTION	GRAPHIC DISPLAY(WINDOWS BASED SOFTWARE)	OUTPUT FROM DDC – DIGITAL: CONTROL RELAY	HANDS/OFF/AUTO	OPEN/CLOSE	OUTPUT FROM DDC – ANALOG: CONTROL POINT ADJUSTMENT	PROPORTIONAL CONTROL	INPUT TO DDC – DIGITAL: CONTACT CLOSURE	PULSE	DIFFERENTIAL PIPES SWITCH	PRESSURE SWITCH	AUXILIARY CONTACT	GENERAL ALARM	INPUT TO DDC – ANALOG: TEMPERATURE (F)	% RELATIVE HUMIDITY	RESISTIVITY	POSITION SENSOR	DIFFERENTIAL PRESSURE	SOFTWARE – ALARMS – DIGITAL: CONTACT CLOSURE---DRY FILTER	CONTACT CLOSURE---EQUIPMENT FAILURE		ALARMS – ANALOG: HIGH LIMIT	LOW LIMIT	RUN TIME		APPLICATIONS: DUTY CYCLING	START/STOP	ECONOMIZER OFF/AUTO	REHEAT COIL RESET	LEAD/LAG	CHILLED WATER RESET	FAILURE MODE
TOWER WATER SYSTEM	X																														
TOWER WATER RETURN CONTROL VALVE						X																									
PUMP – START/STOP		X																								X					
PUMP – STATUS									X										X				X								
TOWER WATER DIFFERENTIAL PRESSURE																	X														



SEQUENCE OF OPERATION

1. GENERAL:
THE SYSTEM PUMP SHALL BE ENERGIZED THROUGH THE CONTROL SYSTEM AND SHALL RUN CONTINUOUSLY. SHOULD A PUMP FAIL TO START, OR FAIL DURING OPERATION, THE CONTROL SYSTEM SHALL DEENERGIZE THE FAILED PUMP AND SEND A SIGNAL TO ENERGIZE THE STAND-BY PUMP AND INDICATE AN ALARM CONDITION. FLOW METERS AND TEMPERATURE SENSORS SHALL PROVIDE MONITORING INPUT TO THE CONTROL SYSTEM.

2. DI WATER TEMPERATURE:
A TEMPERATURE SENSOR IN THE DI WATER SUPPLY LINE (BY TARGET SYSTERMS) SHALL PROVIDE INPUT TO THE CONTROL SYSTEM. THE CONTROL SYSTEM SHALL MODULATE THE CONTROL VALVE IN THE TOWER WATER RETURN LINE AS REQUIRED TO MAINTAIN THE DI WATER SUPPLY TEMPERATURE AT 87° F.

3. DIFFERENTIAL PRESSURE:
A DIFFERENTIAL PRESSURE SENSOR ACROSS THE TWS/R LINES SHALL PROVIDE INPUT TO THE CONTROL SYSTEM. THIS DATA SHALL BE USED BY THE CONTROL SYSTEM (SEE CUB PACKAGE) TO MODULATE THE SPEED OF THE COOLING TOWER PUMPS.

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NUMBER OF SECTION OR DETAIL
DRAWING ON WHICH SECTION OR DETAIL IS SHOWN OR TAKEN
SECTION AND DETAIL KEY

THIS DOCUMENT CONTROLLED BY
CHANGE CONTROL SYSTEM 3
ENGINEERING PROCEDURE SNS-ENG-G001

REV	CHANGE TYPE	CHANGE CONTROL SYSTEM	CHANGE REQUEST NUMBER	DESCRIPTION	DSN	CHK	DEPT	DATE	PE	DATE	PJ	DATE	REQ	DATE	UTB	DATE	RPE	RPE NO	DATE	ST	CV	EC	EE	EM	IE	M	PD	SE	AR
A				ISSUED FOR REFERENCE – 11/13/01	MMK	BWJ											BWJ	105869	11/13/01	REW	–	WRS	AK	WRS	BWJ	–	MP	–	ED

REVISION OR ISSUE PURPOSE — REVISION APPROVALS — SQUAD CHECK

RPE
FOR REFERENCE ONLY

DSN	M.KEHOE	11/13/01
DRW	J.STEIN	11/13/01
CHK	B.JOHNSON	11/13/01
DEPT		
PE		
PJ		
REQ		
REV.	DATE	UTB

DRAWING APPROVALS

108030700-H8E-8700-A100

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PROJECT NAME:
SPALLATION NEUTRON SOURCE
TARGET BUILDING
TARGET TOWER WATER CONTROL DIAGRAM

1	48	49	50	PLANT	BLDG	FL	SH.	OF	TYPE	CLASS
3	H	X	X	8	8700		1	1	D	U
51		52		53	WBS					REV
NC		NA			1.8.3.7		H8.41.03			A

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