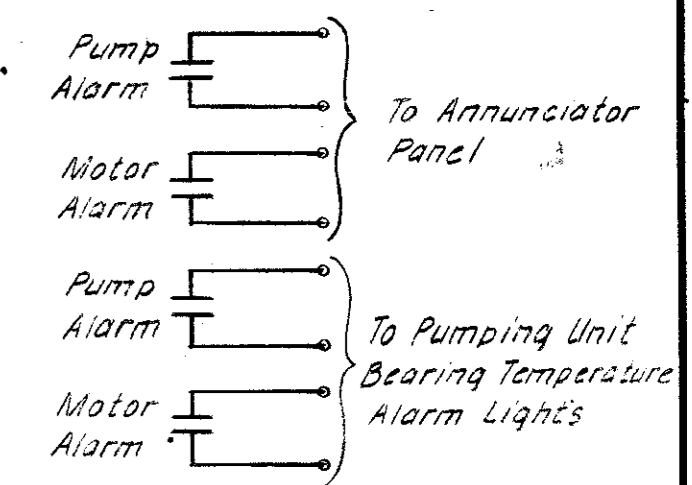


PUMPING UNIT BEARING TEMPERATURE ALARM

* Contractor shall make Required Modification to Alarm Circuits to include Bearing Temperature Lights



LEGEND

- AM Ammeter
- BT Bearing Temperature
- CT Current Transformer
- GFR Ground Fault Relay
- ISW Isolating Switch
- LO Lockout
- LS Limit Switch
- OLP Pump Motor Overload Device
- OLV Valve Motor Overload Device
- PT Potential Transformer
- SS Selector Switch
- TB Terminal Block
- TD Time Delay (0-180 Sec. Off Delay.)
- TS Torque Switch
- ▲ Remote: At Motor Starter
- Remote: At Superv. Panel
- △ Remote: At Valve Controller

TYPICAL MOTOR CONTROL SCHEMATIC
PUMPS IA & 2A

Contact	Selector Position		
	Local	OFF	Remote
L R 1	X		
L R 2			X

"X" Indicates Contact Closed

LOCAL - REMOTE SELECTOR SWITCH

VALVE SHOWN IN FULL CLOSED POSITION

ROTOR	LIMIT SW. CONTACT	VALVE POSITION			FUNCTION
		FULL OPEN	INTERMEDIATE POSITION	FULL CLOSED	
1	1				SPARE
	2				SPARE
	3				IND. VALVE CLOSE (SUPV.)
	4				LSO: OPEN LIMIT
2	5				SPARE
	6				SPARE
	7				IND. VALVE OPEN (SUPV.)
	8				LSC: CLOSE LIMIT
3	9				SPARE
	10				SPARE
	11				SPARE
	12				PUMP ON-START
4	13				SPARE
	14				SPARE
	15				INCOMPLETE SEQ. INT. LOCK
	16				SPARE

① TSC TORQUE SWITCH (CLOSING CYCLE) ② Point of incipient flow
 ③ TSO TORQUE SWITCH (OPENING CYCLE) ④ 5 Degrees beyond ①

VALVE LIMIT SWITCH DEVELOPMENT
VALVES # 1A&2A

DATE	REVISION	BY
MOTOR CONTROL DIAGRAM		
PUMPS IA & 2A		
BELTWOOD PUMP STATION		
DALLAS WATER UTILITIES		
CITY OF DALLAS, TEXAS		
DESIGN	A.C.P. D.C.C.	CONTRACT NO. 81-7
DRAWN	L.M. RME	FILE NO. 640Q-700B
TRACED		SHEET NO. 17
CHECKED		DATE 12-12-80
DATE		OF 20

