TAG Name	Description	Card Slot	Point	Type	Data Field 1	Data Field 2	Remarks
	WASTEWATER PUMPING STATION						
					OFF STATE	ON STATE	
			DISCRETE INPUT				
SS-2A	PUMP 1 IN HAND MODE	1	0	DI		HAND	FROM PCP PUMP 1 H-O-A
SS-2B	PUMP 1 IN AUTO MODE	1	1	DI		AUTO	FROM PCP PUMP 1 H-O-A
TSH-101	PUMP 1 MOTOR WINDING HIGH TEMPERATURE	1	2	DI	NORMAL	ALARM	FROM PCP MOTOR CONNECTION
SFR-101	PUMP 1 SEAL FAIL	1	3	DI	NORMAL	SEAL FAIL	FROM SEAL MONITOR RELAY
ZSX-101	PUMP 1 PUMP CHECK VALVE STATUS	1	4	DI	CLOSED	OPEN	FROM CHECK VALVE PLC INPUT
LPB-1	PUMP 1 PUMP FAIL RESET	1	5	DI		RESET	FROM PCP LPB-1
M-1	PUMP 1 RUNNING	1	6	DI	OFF	RUNNING	FROM PUMP 1 STARTER CONTACT
OL-1	PUMP 1 OVERLOAD	1	7	DI	NORMAL	ALARM	FROM PUMP 1 STARTER OVERLOAD
	SPARE	1	8	DI			
	SPARE	1	9	DI			
SS-1	PUMP 1 REMOTE POSITION	1	10	DI	LOCAL	REMOTE	FROM PUMP 1 STARTER SWITCH
SS-1A	LEAD LAG PUMP SELECTION 1-2	1	11	DI	ALT	1-2	FROM PCP SS-1
SS-1B	LEAD LAG PUMP SELECTION 2-1	1	12	DI	ALT	2-1	FROM PCP SS-1
FS-1 (CR-DW)	DRY WELL LEVEL HIGH	1	13	DI	NORMAL	ALARM	FROM DRY WELL FLOAT (TYPE 1 STATIONS ONLY)
FS-1 (CR-VF)	VALVE VAULT FLOODED	1	13	DI	NORMAL	ALARM	FROM VALVE VAULT FLOAT (TYPE 2 STATIONS ONLY)
FS-2 (CR-AL)	FLOAT MODE STOP (LEVEL LOW)	1	14	DI	NORMAL	ALARM	FROM LOW WET WELL FLOAT
FS-3 (CR-AH)	FLOAT MODE START (HIGH LEVEL)	1	15	DI	NORMAL	ALARM	FROM HIGH WET WELL FLOAT
SS-3A	PUMP 2 IN HAND MODE	2	0	DI		HAND	FROM PCP PUMP 2 H-O-A
SS-3B	PUMP 2 IN AUTO MODE	2	1	DI		AUTO	FROM PCP PUMP 2 H-O-A
TSH-201	PUMP 2 MOTOR WINDING HIGH TEMPERATURE	2	2	DI	NORMAL	ALARM	FROM PCP MOTOR CONNECTION
SFR-201	PUMP 2 SEAL FAIL	2	3	DI	NORMAL	SEAL FAIL	FROM SEAL MONITOR RELAY
ZSX-201	PUMP 2 PUMP CHECK VALVE STATUS	2	4	DI	CLOSED	OPEN	FROM CHECK VALVE PLC INPUT
LPB-2	PUMP 2 PUMP FAIL RESET	2	5	DI		RESET	FROM PCP LPB-2
M-2	PUMP 2 RUNNING	2	6	DI	OFF	RUNNING	FROM PUMP 2 STARTER CONTACT
OL-2	PUMP 2 OVERLOAD	2	7	DI	NORMAL	ALARM	FROM PUMP 2 STARTER OVERLOAD

analog level signal is restored and the backup mode is released/reset through the OIT. Should the high level alarm float be reach while the level transmitter is within its normal operating range, the PLC shall operate as if the level transmitter has failed and switch to the float switch back-up mode until reset.

e. The OIT shall indicate when the station is operating in Float or Level Modes.

C. Loss of communication signal and plc failure:

1. In the event of a PLC failure or fault, an alarm shall be generated and transmitted to the SCADA System. During a PLC failure or fault the motor starters shall be operable from the LOCAL-OFF-REMOTE switch.

D. Station Alarms

1. Any alarm generated by the PLC or received as an input to the PLC shall be displayed on the OIT and/or transmitted to the SCADA System as summarized in Table-1.

Table 1 – STATION ALARMS

Alarm	OIT	SCADA	Remarks
PUMP 1 - OVER TEMPERATURE ALARM	YES	YES	PUMP 1 FAIL (SHUTDOWN)
PUMP 1 - SEAL FAIL ALARM	YES	YES	PUMP 1 FAULT (ALARM)
PUMP 1 - FLOW FAIL ALARM (PUMP 1 FAIL TO START)	YES	YES	PUMP 1 FAULT (ALARM)
PUMP 1 - STARTER FAULT ALARM	YES	YES	PUMP 1 FAIL (SHUTDOWN)
PUMP 1 - NOT IN AUTO ALARM	YES	NO	
PUMP 1 - FAIL TO RUN ALARM	YES	YES	PUMP 1 FAIL (SHUTDOWN)
PUMP 1 - LOCKED OUT BY HMI SCREEN PUSHBUTTON	YES	YES	PUMP 1 FAIL (SHUTDOWN)
PUMP 2 – OVER TEMPERATURE ALARM	YES	YES	PUMP 2 FAIL (SHUTDOWN)
PUMP 2 - SEAL FAIL ALARM	YES	YES	PUMP 2 FAULT (ALARM)
PUMP 2 - FLOW FAIL ALARM (PUMP 2 FAIL TO START)	YES	YES	PUMP 2 FAULT (ALARM)
PUMP 2 - STARTER FAULT ALARM	YES	YES	PUMP 2 FAIL (SHUTDOWN)
PUMP 2 - NOT IN AUTO ALARM	YES	NO	
PUMP 2 - FAIL TO RUN ALARM	YES	YES	PUMP 2 FAIL (SHUTDOWN)
PUMP 2 - LOCKED OUT BY HMI SCREEN PUSHBUTTON	YES	YES	PUMP 2 FAIL (SHUTDOWN)
FLOAT MODE START (From float switch via PLC)	YES	YES	
FLOAT MODE STOP (From float switch via PLC)	YES	YES	
WET WELL LEVEL SENSOR FAILURE	YES	NO	
ATS EMERGENCY POSITION	YES	YES	
GENERATOR FAULT ALARM	YES	YES	
DRY WELL HIGH LEVEL ALARM	YES	YES	Type I stations only
VALVE VAULT FLOODED ALARM	YES	YES	Type 2 stations only
PLC FAIL	NO	YES	

END OF SECTION