1373-PID-N100 SHEEL | OL | PROCESS INTERLOCKS WHEN LAHH-T1 IS ACTIVE, THE INTERCEPTOR WELL PUMP RUN WHEN LAHH-5 OR LAH-T5 IS ACTIVE, THE P-2A/B PUMP RUN PERMISSIVE SIGNALS ARE WITHDRAWN. WHEN THE T-1 LEVEL PERMISSIVE SIGNALS ARE WITHDRAWN. WHEN THE T-5 LEVEL FALLS TO THE SET POINT OF LAL-1, THE PUMP RUN PERMISSIVE FALLS TO THE SET POINT OF LAL-5, THE PUMP RUN PERMISSIVE SIGNALS ARE RESTORED. SIGNALS ARE RESTORED. THEIR LALL-X IS ACTIVE, THE P-XA/D NOIN PERIVISSIVE SIGNA ARE WITHDRAWN. WHEN THE TANK LEVEL RISES TO THE SET WHEN LALL-5 IS ACTIVE, THE P-5A/B RUN PERMISSIVE SIGNALS POINT OF LAH-x, THE PUMP RUN PERMISSIVE SIGNALS ARE ARE WITHDRAWN. WHEN THE T-5 LEVEL RISES TO THE SET POINT OF LAH-5, THE PUMP RUN PERMISSIVE SIGNALS ARE RESTORED. LIME SLURRY DOSING PUMP P-8 OPERATES WHEN P-3A/B OPERATES. FLOW ALARM FAL-9A IS MONITORED WHEN P-9A IS IN FLOW ALARM FAL-8A IS MONITORED WHEN P-8A IS IN OPERATION. IF P-9B IS SET IN AUTO MODE WHEN FAL-9A OPERATION. IF P-8B IS SET IN AUTO MODE WHEN FAL-8A ACTIVATES, THE PROCESS CONTROLS LOGIC WILL PLACE P-9B ACTIVATES, THE PROCESS CONTROLS LOGIC WILL PLACE P-8B INTO OPERATION, WITHDRAW THE RUN PERMISSIVE FOR P-9A, INTO OPERATION, WITHDRAW THE RUN PERMISSIVE FOR P-8A, AND ACTIVATE ALARM FAL-9A FOR OPERATOR INFORMATION. AND ACTIVATE ALARM FAL-8A FOR OPERATOR INFORMATION. 10 SECONDS AFTER FAL-9A ACTIVATES, THE PLC WILL EXAMINE 10 SECONDS AFTER FAL-8A ACTIVATES, THE PLC WILL EXAMINE THE STATUS OF FAL-9B. IF FAL-9B IS ACTIVE, P-1A/B IS THE STATUS OF FAL-8B. IF FAL-8B IS ACTIVE, P-1A/B IS SHUTDOWN. THE FAL-9B SHUTDOWN SIGNAL OF P-1A/B IS SHUTDOWN. THE FAL-8B SHUTDOWN SIGNAL OF P-1A/B IS LATCHED, REQUIRING THE OPERATOR TO PRESS ALARM LATCHED, REQUIRING THE OPERATOR TO PRESS ALARM ACKNOWLEDGE BUTTON AND PRESS THE ALARM RESET BUTTON ACKNOWLEDGE BUTTON AND PRESS THE ALARM RESET BUTTON TO CLEAR THE FAL-1A AND B SHUTDOWN SIGNAL OF P-1A/B. TO CLEAR THE FAL-1A/B AND p-1A/B SHUTDOWN SIGNAL. FLOW ALARM FAL-9B IS MONITORED WHEN P-9B IS IN OPERATION. IF P-9A IS SET IN AUTO MODE WHEN FAL-9B FLOW ALARM FAL-8B IS MONITORED WHEN P-8B IS IN ACTIVATES, THE PROCESS CONTROL LOGIC WILL PLACE P-9A INTO OPERATION. IF P-8A IS SET IN AUTO MODE WHEN FAL-8B OPERATION, WITHDRAW THE RUN PERMISSIVE FOR P-9B, AND ACTIVATES, THE PROCESS CONTROL LOGIC WILL PLACE P-8A INTO ACTIVATE ALARM FAL-9B FOR OPERATOR INFORMATION. 10 OPERATION, WITHDRAW THE RUN PERMISSIVE FOR P-8B, AND SECONDS AFTER FAL-9B ACTIVATES, THE PLC WILL EXAMINE THE ACTIVATE ALARM FAL-8B FOR OPERATOR INFORMATION. 10 STATUS OF FAL-9A. IF FAL-9A IS ACTIVE, P-1A/B IS SHUTDOWN. SECONDS AFTER FAL-8B ACTIVATES, THE PLC WILL EXAMINE THE THE FAL-9A SHUTDOWN SIGNAL OF P-1A/B IS LATCHED, STATUS OF FAL-8A. IF FAL-8A IS ACTIVE, P-1A/B IS SHUTDOWN. REQUIRING THE OPERATOR TO PRESS ALARM ACKNOWLEDGE THE FAL-8A SHUTDOWN SIGNAL OF P-1A/B IS LATCHED, BUTTON AND PRESS THE ALARM RESET BUTTON TO CLEAR THE REQUIRING THE OPERATOR TO PRESS ALARM ACKNOWLEDGE FAL-1A AND B SHUTDOWN SIGNAL OF P-1A/B. BUTTON AND PRESS THE ALARM RESET BUTTON TO CLEAR THE FAL-1A/B AND p-1A/B SHUTDOWN SIGNAL. THE RUN PERMISSIVE SIGNAL IS WITHDRAWN FROM THE THE SLUDGE CONDITIONING TANK FEED VALVE FV-T6 OPERATES PROCESS FEED PUMP P-1A/B WHEN LAHH-2 OR LAHH-T2 ON FREQUENCY AND DURATION TIMERS. ACTIVATES. THE RUN PERMISSIVE SIGNAL IS RESTORED WHRN THE LEVEL OR THE THIRD CHAMBER OF T-2 FALLS TO THE SET POINT OF LAL-2. P-7A IS ENERGIZED WHEN THE LEVEL IN T-7A RISES TO THE LAH-7A SET POINT. P-7A IS DE-ENERGIZED WHEN THE LEVEL IN T-7A POLYMER PUMP P-10A OPERATES WHEN P-2A/B OPERATES. FALLS TO THE SET POINT OF LAL-7A. POLYMER PUMP P-10B OPERATES WHEN P-4A/B OPERATES. P-7B IS ENERGIZED WHEN THE LEVEL IN T-7B RISES TO THE LAH-7B SET POINT. P-7B IS DE-ENERGIZED WHEN THE LEVEL IN T-7B THE INCLINED PLATE SEPARATOR SLUDGE CONTROL VALVE FV-C3 FALLS TO THE SET POINT OF LAL-7B. OPERATES ON FREQUENCY AND DURATION TIMERS. P-7C IS ENERGIZED WHEN THE LEVEL IN T-7C RISES TO THE LAH-7C SET POINT. P-7C IS DE-ENERGIZED WHEN THE LEVEL IN T-7C FALLS TO THE SET POINT OF LAL-7C. DW 08-09-16 DL DW REVISED CHECK DI 08-12-16 DW 08-12-16 HENDERSON, NV ENVIROGEN • A Lifecycle Performance Company PROCESS INTERLOCK NOTES TECHNOLOGIES THIS DRAWING IS A VISUAL REPRESENTATION OF THE EQUIPMENT AND/OR SYSTEM PROPOSED. IT IS NOT INTENDED FOR CONSTRUCTION PURPOSES. 1373-PID-N10 REPLACEMENT CHROMIUM TREATMENT FACILITY