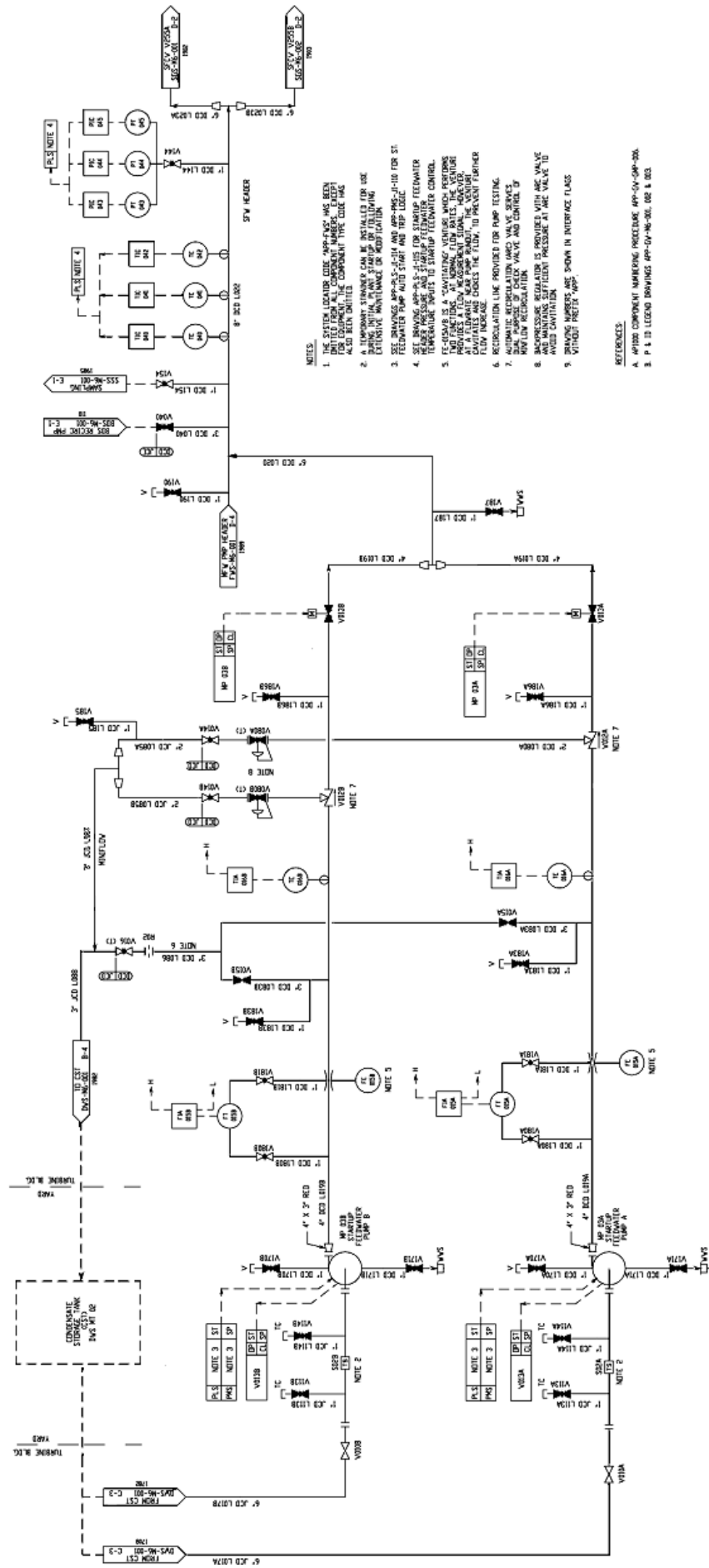


Figure 7.3-1 Startup Feedwater System



- NOTES:
1. THE SYSTEM LOGIC CODE "APP-FWS" HAS BEEN DERIVED FROM ALL COMPONENT NUMBERS. EXCEPT WHERE SHOWN OTHERWISE, THE CODE HAS ALSO BEEN DERIVED FROM THE COMPONENT TYPE CODE AND NUMBER.
 2. A TEMPORARY STRAINER CAN BE INSTALLED FOR USE DURING STARTUP TO PREVENT DEBRIS FROM ACCUMULATING IN THE FEEDWATER SYSTEM.
 3. SEE DRAWINGS APP-S-214 AND APP-S-215 FOR STARTUP FEEDWATER PUMP AUTO START AND TRIP LOGIC.
 4. SET POINTS APP-PLS-1155 FOR STARTUP FEEDWATER PUMP AUTO START AND TRIP LOGIC.
 5. FE-0504B IS A "SAVING" VALVE WHICH PERFORMS AUTO TRIP LOGIC. A NORMAL FLOW RATE, THE VENTURI AIR FLOW RATE, AND THE FEEDWATER PUMP FLOW RATE ARE ALL MONITORED. IF THE VENTURI AIR FLOW RATE IS LOW, THE VALVE WILL CLOSE TO PREVENT FURTHER FLOW INCREASE.
 6. RECIRCULATION LINE PROVIDED FOR PUMP TESTING.
 7. AUTOMATIC RECIRCULATION (ARC) VALVE SERVES AS A LOW FLOW RECIRCULATION VALVE AND CONTROL OF FLOW INCREASE.
 8. BACKPRESSURE REGULATOR IS PROVIDED WITH AIR VALVE TO PREVENT EXCESSIVE PRESSURE AT AIR VALVE TO BE OPENED DURING STARTUP.
 9. STRAINER NUMBERS ARE SHOWN IN INTERFACE CLASS WITHOUT PREFIX "APP".

- REFERENCES:
- A. APP-S COMPONENT NUMBERING PROCEDURE APP-S-001-001-001
 - B. P & I LOGIC DRAWING APP-S-001-001-001 & 002

Figure 7.3-2 Startup Feedwater System P&ID