3.17 On a loss of instrument air, the back press control valves (AF-4012 and AF-4019) are backed up by nitrogen to provide continued operation for greater than one hour. For extended operation an installed spare nitrogen cylinder must be valved in.

3.18 On line nitrogen cylinders should be changed out when pressure drops below 1850 psig to ensure operational design requirements are met. (Ref. CALC M-09334-266-IA.1)

3.19 On a loss of instrument air, the mini-recirc valves fail closed. The pumps should **NOT** be run with a flow less than 75 gpm without manually gagging the valves (AF-4007 & AF-4014) open.

3.20 AF-4012 and AF-4019, P38A(B) AFP Discharge Control valves SHALL be set to 1200 psi whenever the valves are in AUTO, or declared inoperable.

3.21 The minimum recirculation flow is 70 gpm.

3.22 The motor driven auxiliary feedwater pump is designed to deliver 200 gpm at 1192 psi with a shutoff head of 1305 psi.

3.23 There is a possibility that discharge MOV control switches can be placed in an "intermediate" position. Whenever the mode of operation (AUTO/MANUAL) is changed, the MOV control switch should be operated in the desired position (OPEN or SHUT), to verify the switch is **NOT** in the intermediate position.

3.24 Loss of DC power to the automatic logic is indicated by the white light near the control switches going out and 1C01A 2-8 (2-10), Auxiliary Feedwater System Disabled, alarm annunciating.

3.25 Motor-Driven Auxiliary Feedwater Pump Discharge MOV Modes of Operation:

- The automatic position (pushed-in) allows the valves to automatically open or shut.
- The manual position (pulled-out) allows operator control of the valves, except that an automatic shut signal shuts the valve.

3.26 1C01A 2-8 (2-10), Auxiliary Feedwater System Disabled alarm annunciates whenever the control switch is in the manual (full pull-out) position. This indicates automatic actuation is restricted.

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