

 MAHAGENCO Maharashtra State Power Generation Co. Ltd.	MAHARASHTRA STATE POWER GENERATION CO. LTD.	Volume: III-B
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1.0 INTRODUCTION

1.1 BOILER FEED (B.F) PUMPS AND DRIVES

1.1.1 2 X 50% capacity Steam Turbine driven pumps with shaft driven suction booster pumps, drives and accessories and 2 x 30% capacity electric motor driven pumps with shaft driven booster pumps and hydraulic coupling shall be installed for supplying feed water to the Steam Generating Unit. Two (2) Turbine driven pumps will be operating normally while the two electric motor driven pumps (2 x 30%) shall remain as a standby units and will come into operation automatically in case any of the working pumps fail.

1.1.2 The Boiler Feed Pumps are proposed to be installed as shown in enclosed drawings and shall receive the suction water from De-aerating heater storage tank and then pump it through high pressure feed water heaters to the Steam Generator.

1.1.3 The De-aerator shall be supplied with extraction steam from the Turbine and shall normally operate at a variable pressure depending on the extraction pressure at different loads. A steam connection from the auxiliary steam header/cold-reheat pipe shall be provided for initial heating and de-aeration at start-up as well as Pegging at low extraction steam pressure. However, the Boiler Feed Pumps shall be capable of withstanding transient instabilities in the suction pressure caused due to load swing of the Turbine Generator from full load to no load and interruption of steam supply to the de-aerator. Boiler Feed Pumps shall also be adequately designed for Turbine by-pass operation.

1.1.4 The pumps shall be designed for efficient and reliable operation and shall be of proven design with at least five years of satisfactory operating experience.

1.2 CONDENSATE EXTRACTION PUMPS AND DRIVES

1.2.1 Three (3) (50% capacity) Condensate Extraction Pumps (2W + 1S) shall be provided. Any two of the pumps shall be capable of handling the full condensate from the Condenser to the De-aerator through L.P. Heaters,