



TITLE:  
**TECHNICAL SPECIFICATION FOR  
CONDENSATE POLISHING UNIT**  
  
**2X800 MW YERMARUS STPP**

BHEL DOCUMENTS NO.: PE-TS-362-155-A001

**VOLUME-IIB**

**SECTION -C1**

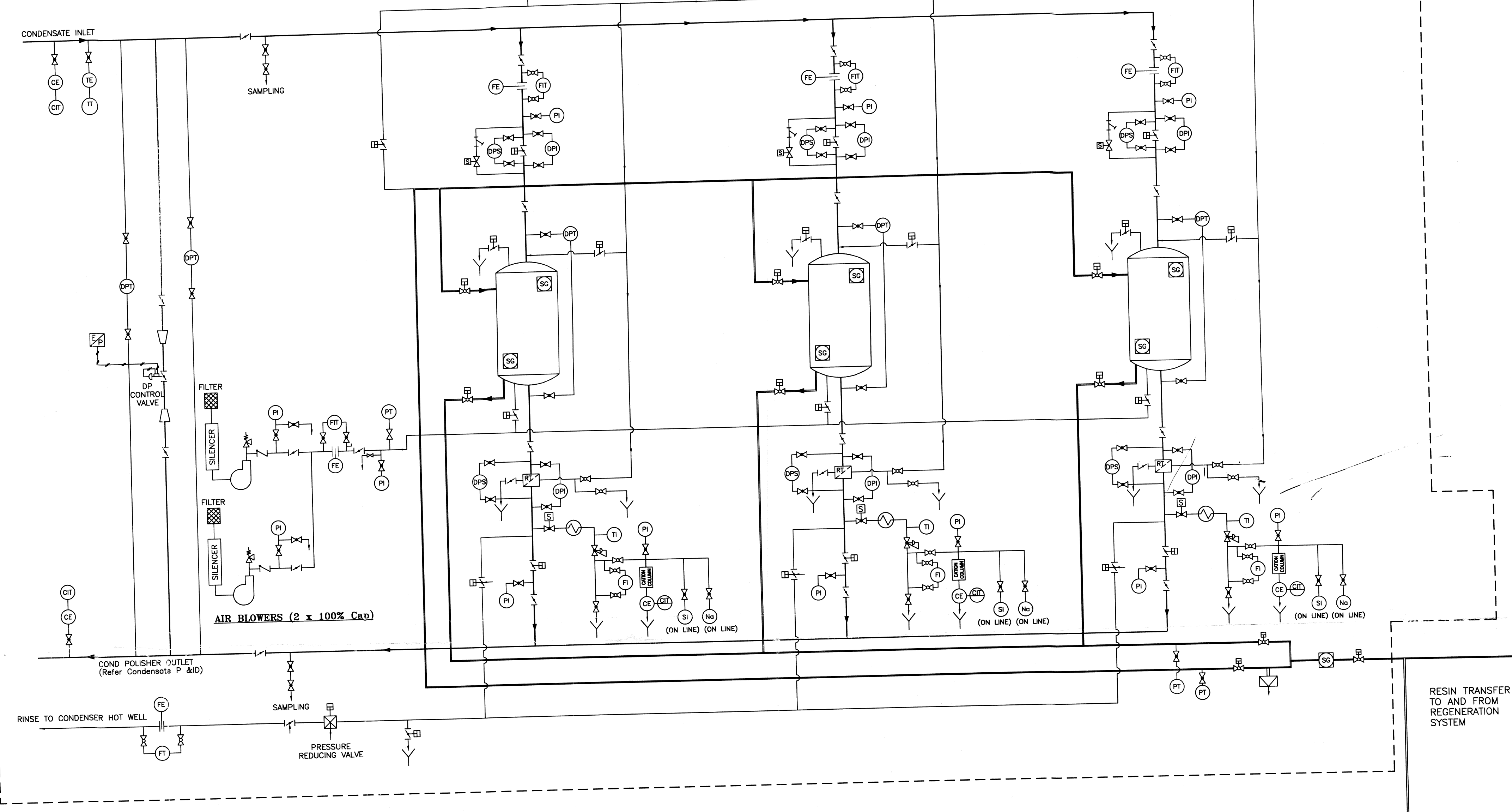
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DATE: 14/12/11

**P&ID**

100V-DG-362-155-A001  
ON DIMENSION

CONDENSATE POLISHING FOR UNIT # 2



FOR CONTINUATION REFER SHEET 2 OF 2 OF THIS DRAWING

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**NOTES :**

1. THE P&I DIAGRAM IS INDICATIVE AND ONLY MINIMUM REQUIREMENT OF VALVES, INSTRUMENTATION ETC. HAS BEEN SHOWN. BIDDER SHOULD FURNISH COMPLETE SCHEME IN ALL RESPECTS INCLUDING ALL INSTRUMENTS, VALVES ETC. FOR SMOOTH, SAFE, EFFICIENT, TROUBLE FREE OPERATION OF PLANT FOR BHEL/CUSTOMER APPROVAL DURING DETAILED ENGINEERING.
2. [Symbol] INDICATES TERMINAL POINTS BETWEEN BHEL & BIDDER:
3. SERVICE VESSELS OF SPHERICAL DESIGN IS ALSO ACCEPTABLE.
4. ALL THE INSTRUMENT ISOLATION VALVES OTHER THAN FOR ACID/ALKALI APPLICATION SHALL BE GLOBE PATTERN AND DIAPHRAGM TYPE FOR ACID/ALKALI APPLICATION TO BE PROVIDED AT SOURCE. NEAR THE INSTRUMENT 2-VALVE MANIFOLD FOR PRESSURE MEASURING INSTRUMENTS, 3-VALVE MANIFOLD FOR DP MEASURING INSTRUMENTS, 5-VALVE MANIFOLD FOR DPTS, BALL VALVE FOR FLOW INDICATORS, ANALYTICAL INSTRUMENT SHALL BE PROVIDED.
5. WHERE EVER PROVIDING 2 VALVE MANIFOLD IS NOT FEASIBLE TWO NUMBERS OF GLOBE VALVES SHALL BE PROVIDED TO MEET THE FUNCTION OF 2-VALVE MANIFOLD.
6. ACID/ALKALI/DM LINE PR. INSTRUMENTS SHALL BE PROVIDED WITH DIAPHRAGM SEAL.
7. FLOW TOTALISATION SHALL BE DONE IN SOFTWARE.
8. DP CONTROL VALVE BETWEEN INLET/OUTLET OF CPU SHALL BE MODULATING TYPE DULY PROVIDED WITH PNEUMATIC ACTUATOR, MICRO-PROCESSOR BASED POSITIONER, POS. XMTR, AIR LOCK DEVICE AND SOLENOID VALVE ETC.
9. ALL SOLENOID OPERATED VALVES SHALL BE PROVIDED WITH SOLENOID VALVE, AIR LOCK RELAY ETC. AS REQUIRED BY PROCESS.
10. ALL THE TRANSMITTERS PROCESS ACTIVATED SWITCHES ARE TO BE CONNECTED TO DDCMIS.
11. BLANK FLANGES, COUNTER FLANGES & ISOLATION VALVES SHALL BE PROVIDED BY THE BIDDER AT THE TERMINAL POINTS WHEREVER APPLICABLE.
12. REFER SHEET 2 OF 2 OF THIS DRAWING FOR ADDITIONAL NOTES.

**CONDENSATE POLISHING FOR UNIT # 1 (TYPICAL)**

**LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PRIMING CHAMBER		BLOWER
	PUMP		ISOLATION GATE
	BALL VALVE		DRAIN
	BUTTERFLY VALVE		OVERFLOW SEAL POT/CO2 ABSORBER
	GLOBE VALVE		RUPTURE DISC
	DIAPHRAGM VALVE		PRESSURE REDUCING VALVE
	MOTORISED VALVE		CONDENSATE LINE
	PRESSURE RELIEF VALVE		D.M.WATER/ DRAIN LINE
	NON RETURN VALVE		RINSE WATER LINE
	BUTTERFLY VALVE WITH GLAND SEALING		ACID SOLUTION LINE
	SOLENOID VALVE		ALKALI SOLUTION LINE
	RESIN TRAP		RESIN TRANSFER LINE
	SIGHT GLASS		FIELD MOUNTED INSTRUMENT
	DOUBLE ACTING PNU.CYLINDER OPERATOR		PANEL MOUNTED INSTRUMENT
	PNEUMATICALLY OPERATED CONTROL VALVE		PULSATION DAMPER
	'Y' TYPE STRAINER		DIAPHRAGM SEAL

- CS CONTROL SYSTEM
- LS LEVEL SWITCH
- TI TEMPERATURE TRANSMITTER
- PI PRESSURE INDICATOR
- PT PRESSURE TRANSMITTER
- TI TEMPERATURE INDICATOR
- FI FLOW INDICATOR
- CE CONDUCTIVITY ELEMENT
- FT FLOW TOTALISIZER
- DPI DIFF. PRESSURE INDICATOR
- DPS DIFF. PRESSURE SWITCH
- FIT FLOW INDICATOR TRANSMITTER
- FE FLOW ELEMENT
- CT CONDUCTIVITY TRANSMITTER
- DPT DIFF. PRESSURE TRANSMITTER
- FS FLOW SWITCH
- CIT CONDUCTIVITY INDICATING TRANSMITTER
- DT DENSITY TRANSMITTER
- TE TEMPERATURE ELEMENT
- LI LEVEL INDICATOR
- PHE pH ELECTRODE
- PHAT pH ANALYSER TRANSMITTER
- ORIFICE (Pressure Breakdown)
- SI SILICA ANALYSER (ON LINE)
- Na SODIUM ANALYSER (ON LINE)

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**2X800 MW YERMARUS STPP**  
**RAICHUR POWER CORPORATION LIMITED**

BHARAT HEAVY ELECTRICALS LTD  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
NEW DELHI

TITLE  
**P & I DIAGRAM CONDENSATE POLISHING PLANT**

DEPT. SCALE NTS  
SIGN DATE  
DRAWING NO.  
**PE-DG-362-155-A001**  
SHEET 01 OF 02 REV. 0  
FORMAT SIZE A4

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