

5 X 800 MW YADADRI TPS

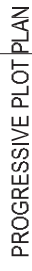
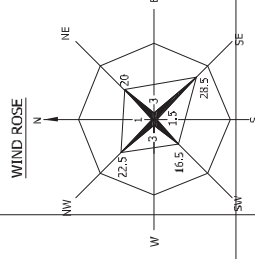
ANNEXURE - IV  
(INPUT DRAWINGS OF TENDER)



BHARAT HEAVY ELECTRICALS LTD  
POWER SECTOR PROJECT ENGINEERING MANAGEMENT  
NOIDA-INDIA

List of Drawings, for tender estimation purpose only, enclosed with the technical specification

| SNO | DESCRIPTION                          | DRG NO             |
|-----|--------------------------------------|--------------------|
| 1   | PLOT PLAN                            | PE-DG-417-100-M001 |
| 2   | PID FOR COMPRESSOR HOUSE             | PE-DG-417-555-A018 |
| 3.  | LAYOUT FOR COMPRESSOR HOUSE BUILDING | PE-DG-417-555-A015 |



|    |                                                                                                                                                                                                                                                                                            |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | ALL DIMENSIONS AND CO-ORDINATES ARE IN METER UNLESS NOTED OTHERWISE.                                                                                                                                                                                                                       |
| 2. | THE FINISHED FLOOR LEVEL (FFL) OF POWER HOUSE BUILDING GROUND FLOOR IS EL + 0.00M WHICH CORRESPONDS TO RL -91.94M, i.e., 0.5M ABOVE FGL (-91.44M) IN MAIN PLANT AREA.                                                                                                                      |
| 3. | CUSTOMER GRIDS HAVE BEEN CONVERTED TO PLANT GRIDS. REFERENCE POINT HAS BEEN INDICATED.                                                                                                                                                                                                     |
| 4. | THE APPROACH ROADS & PIPE SUPPORTING STRUCTURES SHOWN IN THIS DRAWING ARE INDICATIVE ONLY. THE SAME WILL BE FURTHER UPDATED BASED ON FINALIZATION OF RESPECTIVE FACILITIES /BUILDINGS.                                                                                                     |
| 5. | LOCATION AND SIZES OF VARIOUS BUILDINGS AND FACILITIES SHOWN ARE PRELIMINARY. THE SAME WILL BE FURTHER UPDATED BASED ON FINALIZATION OF RESPECTIVE FACILITIES /BUILDINGS.                                                                                                                  |
| 8. | ALL ROADS, DRAINS AND RESPECTIVE EMBANKMENTS ARE IN TSGENCO SCOPE. FOR NON PLANT BUILDINGS SCOPE/FP DEMARCATION SHALL BE AS PER TECHNICAL MEMO DATED 04/10/2017 & REVISED LOI ED/TPC/SE-II/JE/IE-9/YADADRI TPS, D.NO.102/17 dt. 17/10/2017.                                                |
| 7. | IN ACCORDANCE TO THE REVISED LOI DATED 17/10/2017, THE REVISION 'R02' OF THE EARLIER DEVELOPED PLOT PLAN (ON THE BASIS OF MEETINGS/DISCUSSIONS HELD WITH THE CUSTOMER ON 02/11/16 AT YADADRI SITE AND ON 06/11/15 AT KAKATIYA SITE) HAS BEEN NOW SUPERCEDED WITH THE FRESH REVISION 'R03'. |
| 8. | GREEN BELT (CUSTOMER SCOPE) IS SHOWN INDICATIVELY.                                                                                                                                                                                                                                         |
| 9. | RIVER WATER INTAKE UPTO IN PLANT RESERVOIR IS IN CUSTOMER SCOPE.                                                                                                                                                                                                                           |

| LEGEND |                              |
|--------|------------------------------|
| SYMBOL | DESCRIPTION                  |
|        | NON RETURN VALVE             |
|        | BALL VALVE (OPEN)            |
|        | BALL VALVE (CLOSED)          |
|        | GLOBE VALVE (OPEN)           |
|        | GLOBE VALVE (CLOSED)         |
|        | RELIEF/SAFETY VALVE (OPEN)   |
|        | LOCAL CONTROL PANEL          |
|        | SOLENOID VALVE               |
|        | Y TYPE FUNNEL                |
|        | DOWN POINT METER             |
|        | WATER LINE                   |
|        | DRAIN LINE                   |
|        | AIR LINE                     |
|        | FLOW SWITCH                  |
|        | TEMP. GAUGE                  |
|        | PRESSURE GAUGE               |
|        | PRESSURE TRANSMITTER         |
|        | FLOW INDICATOR               |
|        | VORTEX TYPE FLOW TRANSMITTER |
|        | SIGHT FLOW INDICATOR         |
|        | FLOW TRANSMITTER             |
|        | MOTORISED VALVE              |

NOTES :-

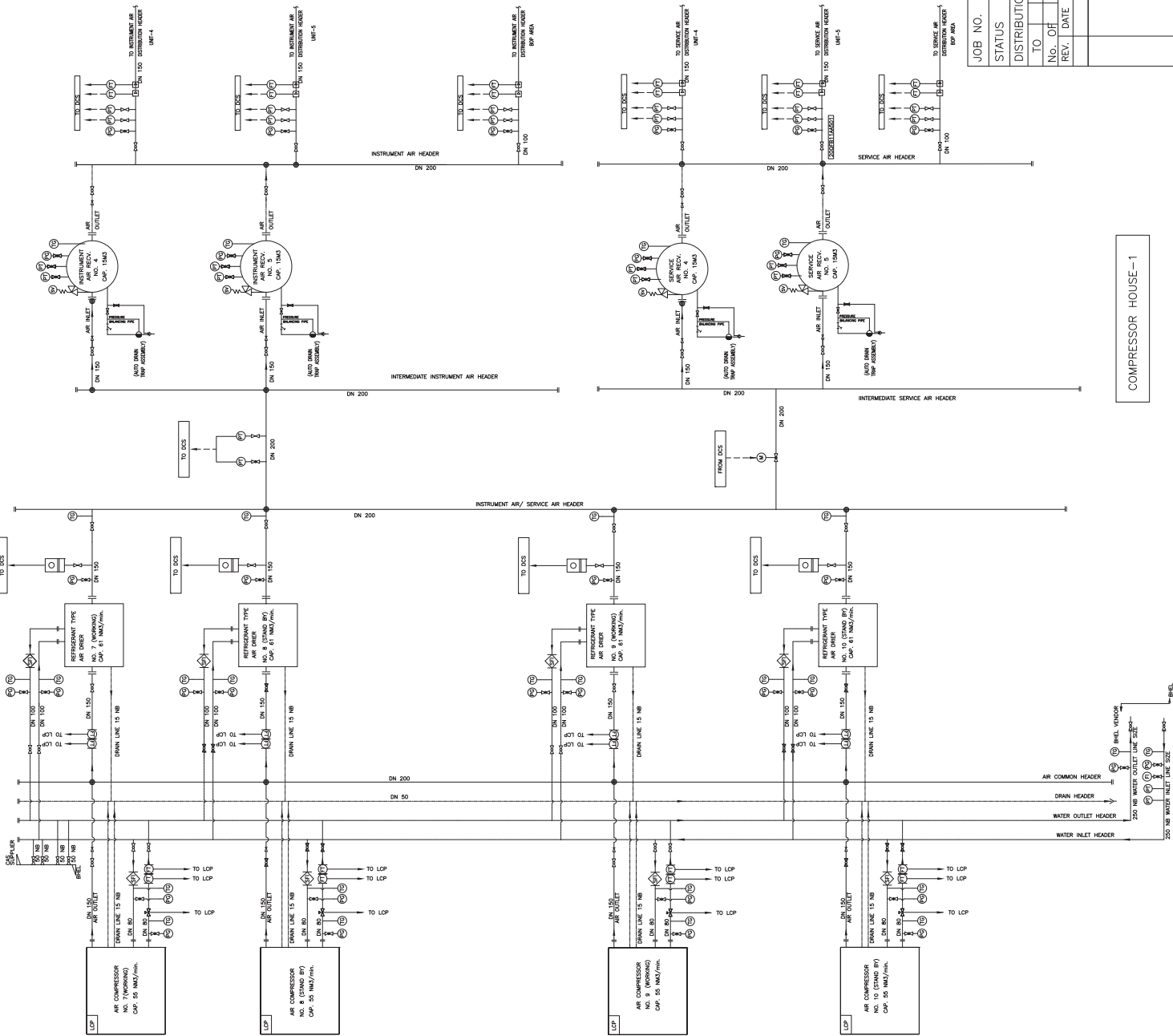
1. THE GIVEN P&I IS CONFINED TO INSTRUMENTS AND PIPING FOR COMPRESSOR HOUSE AREA ONLY.
2. ALL INTERCONNECTING COMPRESSED AIR PIPING SHALL BE OF STAINLESS STEEL AS PER ASTM-A312 GR. 304 SCHEDULE 40S, ANSI - B36.19 UPTO 50 MM NB AND AS PER SCHEDULE 10S ANSI B 36.19 FOR SIZES EQUAL TO GREATER THAN 65 MM NB.
3. PRESSURE INTERCONNECTING COMPRESSED AIR PIPELINE SHALL BE STAINLESS STEEL AS PER ASTM A-182 F304.
4. ALL COOLING WATER PIPING WILL BE CONFORMING TO IS:1239 (HEAVY GRADE) UPTO 150 MM NB AND IS-3589 FOR SIZES ABOVE 150 MM WITH MINIMUM PIPE THICKNESS OF 6 MM.
5. FITTING FOR COOLING WATER PIPING SHALL BE AS PER ASTM A234 GR WPB FOR SIZING INCLUDING 65 MM NB AND ABOVE AND ASTM 105 FOR SIZES UPTO 50 NB
6. ALL AIRLINE VALVES SHALL BE BALL VALVE TYPE FOR COMPRESSED AIR APPLICATION VALVE MATERIAL SHALL BE OF STAINLESS STEEL VALVES SHALL BE AS PER BS-5351.
7. ALL WATER LINE VALVES SHALL BE BALL VALVE TYPE FOR COOLING WATER LINE APPLICATION VALVE MATERIAL SHALL BE OF CARBON STEEL
8. INSTRUMENTS OR AIR RECEIVER SHALL BE MOUNTED LOCALLY AT ACCESSIBLE ELEVATION.
9. DUAL REDUNDANCY FOR ALARM/ANNUNCIATION AND TRIPLE REDUNDANCY FOR TRIP/SHUTDOWN WITHIN THE COMPRESSOR HOUSE AREA SHALL BE PROVIDED. IN CASE ADDITIONAL SET OF INSTRUMENTS IS POSSIBLE NOT POSSIBLE TO ACCOMMODATE WITHIN SKID DUE TO SPACE CONSTRAINT, THE SAME SHALL BE SUPPLIED AS LOOSE ITEMS.
10. INDIVIDUAL COMPRESSOR CONTROL SHALL BE THROUGH REDUNDANT MICROPROCESSOR BASED CONTROL SYSTEM. IF MANUFACTURER UNABLE TO PROVIDE REDUNDANT MICROPROCESSOR CONTROL, THEN ONLY MICROCONTROLLERS SHALL BE SUPPLIED AS LOOSE ITEMS.

|                     |                                                                                                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>CUSTOMER</b><br> | <b>TELANGANA STATE POWER GENERATION CORPORATION LTD</b><br><b>TELANGANA STATE, INDIA</b><br><b>5x800 MW TSGENCO YADADRI TPS,</b> |
|                     | <b>CONSULTANT:</b>                                                                                                               |

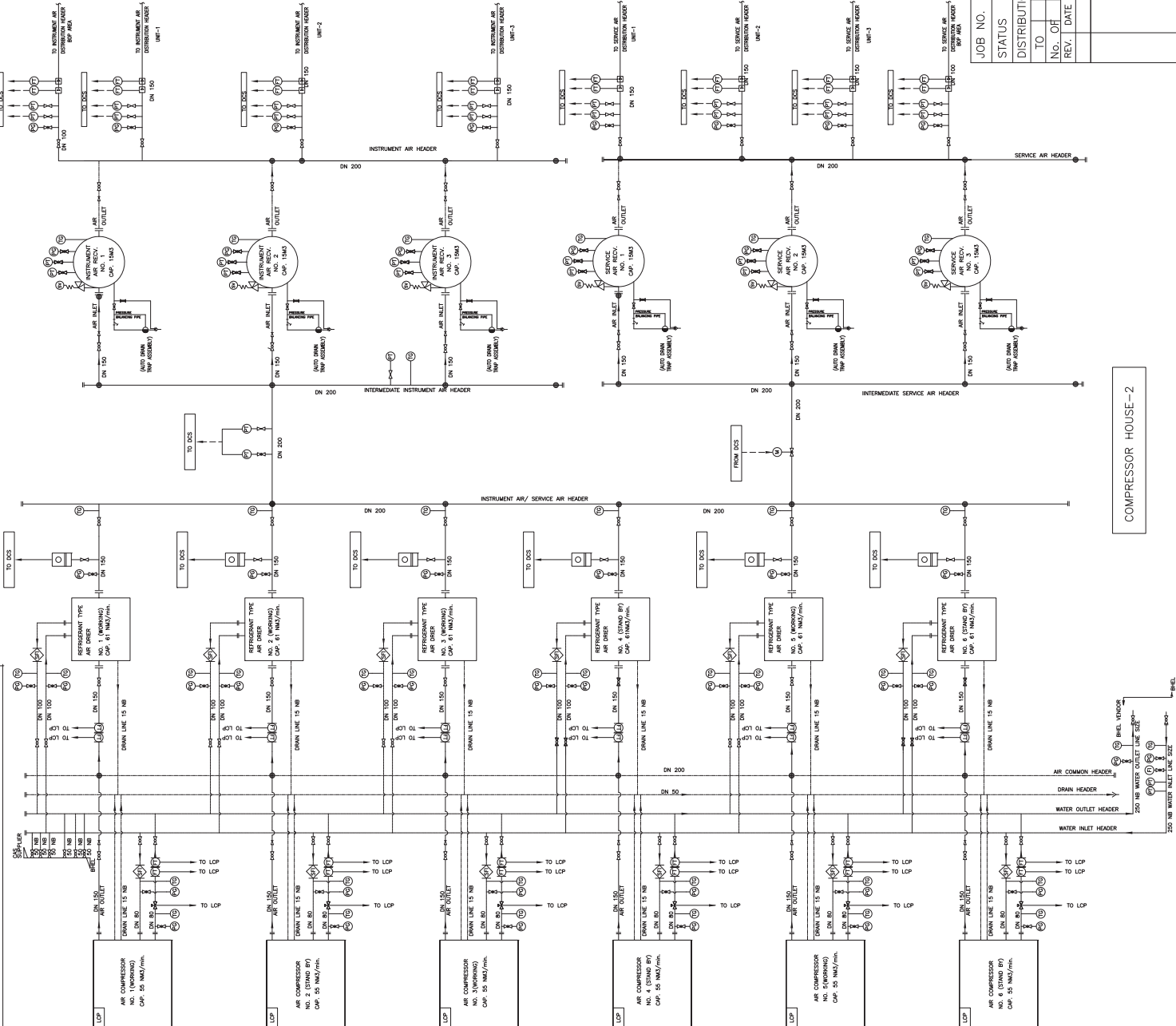
|                        |      |
|------------------------|------|
| <b>JOB NO. 417</b>     |      |
| <b>STATUS CONTRACT</b> |      |
| <b>DISTRIBUTION</b>    |      |
| TO                     |      |
| NO. OF                 |      |
| REV.                   | DATE |
| ALTD                   | CHD  |
| APPD                   |      |

|                                                                   |                            |             |
|-------------------------------------------------------------------|----------------------------|-------------|
|                                                                   | <b>INDIA</b>               |             |
|                                                                   | <b>MAHARASHTRA COMPANY</b> |             |
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| BHARAT HEAVY ELECTRICALS LIMITED it must not be used directly or  |                            | <b>DATE</b> |
| indirectly in any way detrimental to the interest of the company. |                            | <b>SIGN</b> |
|                                                                   |                            | <b>DATE</b> |

COMPRESSOR HOUSE-1



|              |  |                                                                    |  |
|--------------|--|--------------------------------------------------------------------|--|
| <b>TITLE</b> |  | <b>P &amp; ID OF COMPRESSED AIR SYSTEM WITHIN COMPRESSOR HOUSE</b> |  |
|              |  | <b>DRAWING No.</b>                                                 |  |
|              |  | <b>PE-DG-417-555-A018</b>                                          |  |
|              |  | <b>SHEET 01 OF 02</b>                                              |  |
|              |  | <b>REV 00</b>                                                      |  |



| LEGEND |                              |
|--------|------------------------------|
| SYMBOL | DESCRIPTION                  |
| DI     | NON RETURN VALVE             |
| DO     | BALL VALVE (OPEN)            |
| DO     | BALL VALVE (CLOSED)          |
| DO     | GLOBE VALVE (OPEN)           |
| DO     | GLOBE VALVE (CLOSED)         |
| DO     | RELIEF/SAFETY VALVE (OPEN)   |
| DO     | LOCAL CONTROL PANEL          |
| DO     | SOLENOID VALVE               |
| DO     | 'Y' TYPE FUNNEL              |
| DO     | DRAIN POINT METER            |
| DO     | WATER LINE                   |
| DO     | DRAIN LINE                   |
| DO     | AIR LINE                     |
| DO     | FLOW SWITCH                  |
| DO     | TEMP. GAUGE                  |
| DO     | PRESSURE GAUGE               |
| DO     | PRESSURE TRANSMITTER         |
| DO     | FLOW INDICATOR               |
| DO     | VORTEX TYPE FLOW TRANSMITTER |
| DO     | SIGHT FLOW INDICATOR         |
| DO     | FLOW TRANSMITTER             |
| DO     | MOTORISED VALVE              |

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|                                                                                                        |                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>CUSTOMER</b><br> | <b>TELANGANA STATE POWER GENERATION CORPORATION LTD</b><br><b>TELANGANA STATE, INDIA</b><br><b>5x800 MW TSGENCO YADADRI TPS,</b> |
|                                                                                                        | <b>CONSULTANT:</b>                                                                                                               |

|                        |      |
|------------------------|------|
| <b>JOB NO. 417</b>     |      |
| <b>STATUS CONTRACT</b> |      |
| <b>DISTRIBUTION</b>    |      |
| TO                     |      |
| NO. OF                 |      |
| REV.                   | DATE |
| CHD                    | CHD  |
| APPD                   | APPD |

|                                                                                                                                                                                                                                                                                  |            |
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| 07.12.2017                                                                                                                                                                                                                                                                       | 07.12.2017 |
| 07.12.2017                                                                                                                                                                                                                                                                       | 07.12.2017 |
| 07.12.2017                                                                                                                                                                                                                                                                       | 07.12.2017 |
| 07.12.2017                                                                                                                                                                                                                                                                       | 07.12.2017 |

COMPRESSOR HOUSE-2

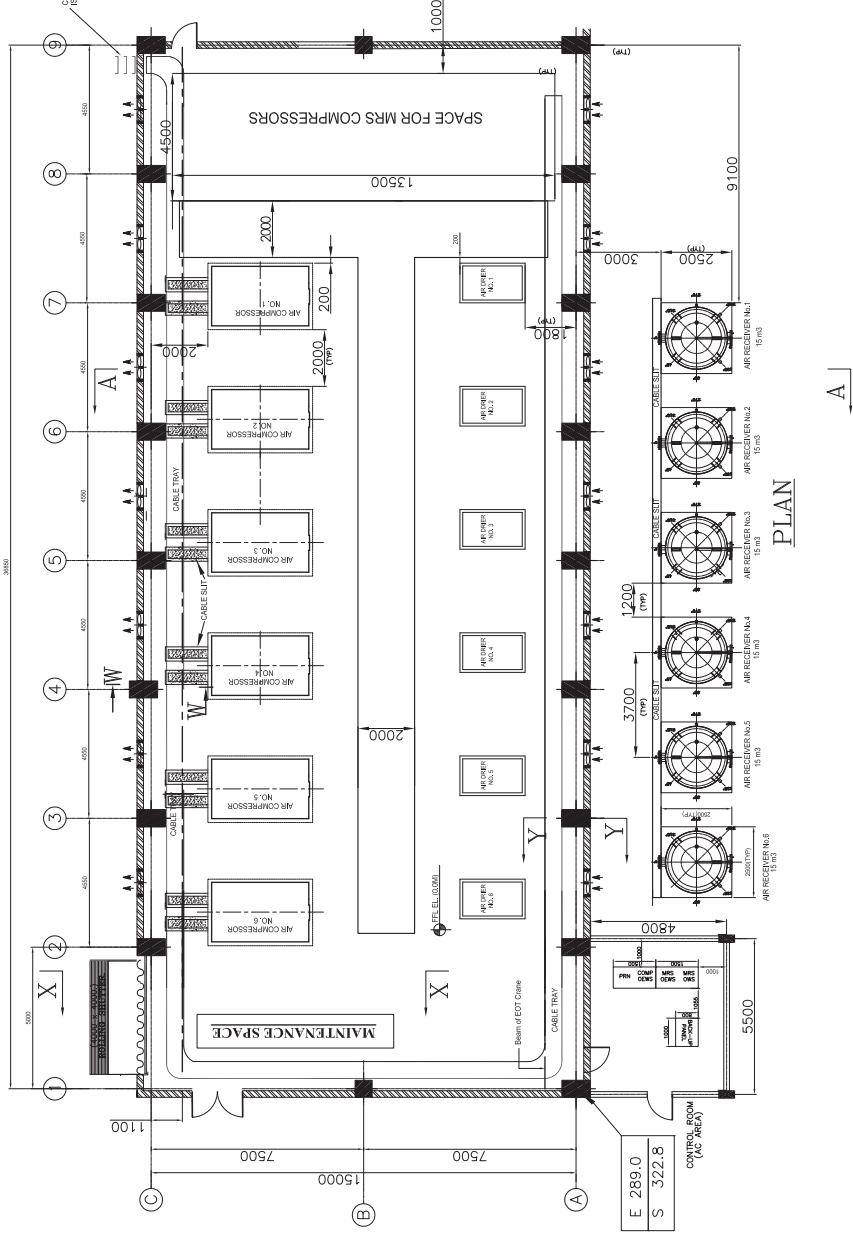
|                           |            |
|---------------------------|------------|
| <b>PE-DG-417-555-A018</b> |            |
| <b>REVISION</b>           |            |
| DATE                      | BY         |
| 07.12.2017                | 07.12.2017 |
| 07.12.2017                | 07.12.2017 |
| 07.12.2017                | 07.12.2017 |
| 07.12.2017                | 07.12.2017 |



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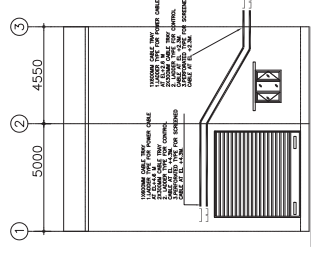
5000-500-111-20-24 100% DRAWING



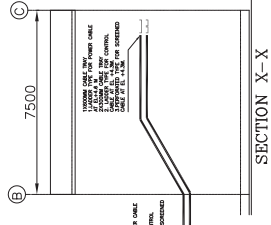
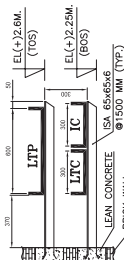
COMPRESSOR HOUSE #2 LAYOUT  
(6 COMPRESSOR AND 6 DRYER)

PLAN

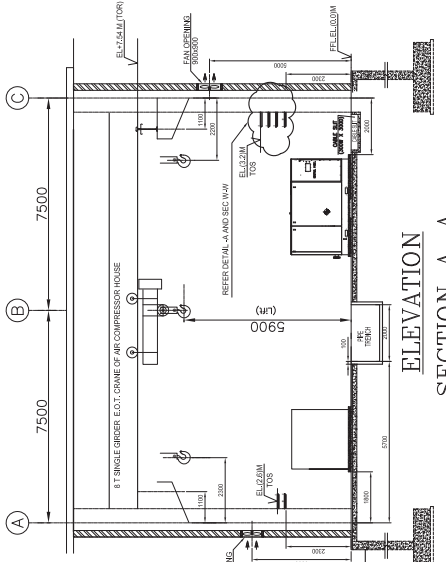
NORTH SIDE ELEVATION ALONG GRID-C



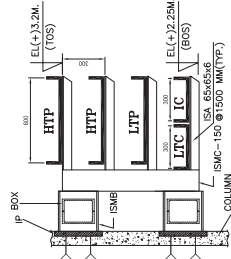
SECTION Y-Y



SECTION X-X



SECTION A-A



SECTION W-W

COMPRESSOR HOUSE LAYOUT

TELANGANA STATE POWER GENERATION CORPORATION LTD  
TELANGANA, INDIA  
5 x 500 MW YADADRI TPS, NALGONDA

BIHARAT HEAVY ELECTRICALS LTD  
PROJECT ENGINEERS MANAGEMENT

COMPRESSOR HOUSE LAYOUT

DATE: 10/10/2024  
DRAWN BY: 1001  
CHECKED BY: 1002  
APPROVED BY: 1003

COMPRESSOR HOUSE LAYOUT

DATE: 10/10/2024  
DRAWN BY: 1001  
CHECKED BY: 1002  
APPROVED BY: 1003