



# भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

## BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

**TCN - 01**

Ref: PSER:SCT:BRM-M1320:TCN-01

Date: 20/04/2012

Sub	Tender change notice (TCN) 01	
Job	Design, engineering, manufacturing, supply, Testing, commissioning , trial run , Handing over to customer of Compressed air system Package for 2x250 MW Barauni Extension Project unit # 8 & 9 at Begusarai , Bihar.	
Ref	1.0	Tender no PSER:SCT:BRM-M1320:12
	2.0	BHEL's NIT, vide ref no PSER:SCT:BRM-M1320:12 Dated 30/03/2012
	3.0	Other references (if any).

With reference to above, following points , relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Due date of submission is extended form 20/04/2012 to 26/04/2012 at 14-00 Hrs.
- 2.0 Clarification to bidders query as per Annexure-A to TCN-01.
- 3.0 Revise P&ID for Compressor house is attached.
- 4.0 Revised GPC Format is attached.
- 5.0 Revised `No deviation certificate' is attached. Bidder to submit `No deviation certificate' as per attached Format only.
- 6.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

**ENGR (SCT)**

Encl

- 1.0 Clarification to bidders query as per Annexure-A to TCN-01.
- 2.0 Revise P&ID for Compressor house is attached.
- 3.0 Revised GPC Format is attached.
- 4.0 Revised `No deviation certificate' format.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211798/ 1691

**ANNEXURE-A to TCN-01**

<b>Job</b>	Design, engineering, manufacturing, supply, Testing, commissioning , trial run , Handing over to customer of Compressed air system Package for 2x250 MW Barauni Extension Project unit # 8 & 9 at Begusarai , Bihar.
<b>Tender no</b>	PSER: SCT:BRM-M1320:12

<b>SI no</b>	<b>Reference clause of tender document</b>	<b>Existing provision</b>	<b>Bidder's query</b>	<b>BHEL's clarification</b>
1	Volume - IIB, Section – C.1 , Specific Technical Requirements Mechanical, 3.1.9	Crane of 8 T is written in our scope	Kindly clarify for scope as it is in Exclusions as per clause no. 10.4 of Volume - II B Section – C.1.	Crane not in vendor scope.
2	Volume II B Section C1, P&ID	soft copy of P&id drawing provided	P&IDs provided are not at all visible, please provide visible one as there are so many instruments.	Revised P&I D in PDF format attached for vendor use .
3	Volume - IIB, Section – C.1, Specific Technical Requirements Mechanical, 3.1.9,	Interchangeability of SA compressor to IA compressor shall be done manually.	Kindly confirm if this is to be considered for manual or automatic	Interchangeability from SA to IA shall be automatic.
4	Volume - IIB, Section – C.3, Specific Technical Requirements C&I, 1	The control for system shall be realized in PLC based system (in vendor scope).	As per Operation, Control & Instrumentation provided in Volume - IIB, Section – C.1, we understand that compressor panel shall be microprocessor based control and panels as well as some of field instruments are to be hooked up with DDCMIS directly. Any common PLC are not in IR scope.	Common PLC not in vendor scope . MFGR , STD , Microprocessor panel is acceptable. Vendors to provide DCS hook up logic along with the bid for automatic interchangeability from SA to IA at upstream of air dryer & instruments used for such operation & other instruments marked in the P&I D . All control to be built up in DCS.
5	Volume - IIB, Section – C.3, Specific Technical Requirements C&I	PLC datasheet, PLC specifications and PLC QAP.	Not Applicable as compressor and dryer panels are microprocessor based and Common PLC is not provided.	Please Refer Reply against point no. 4.

**ANNEXURE-A to TCN-01**

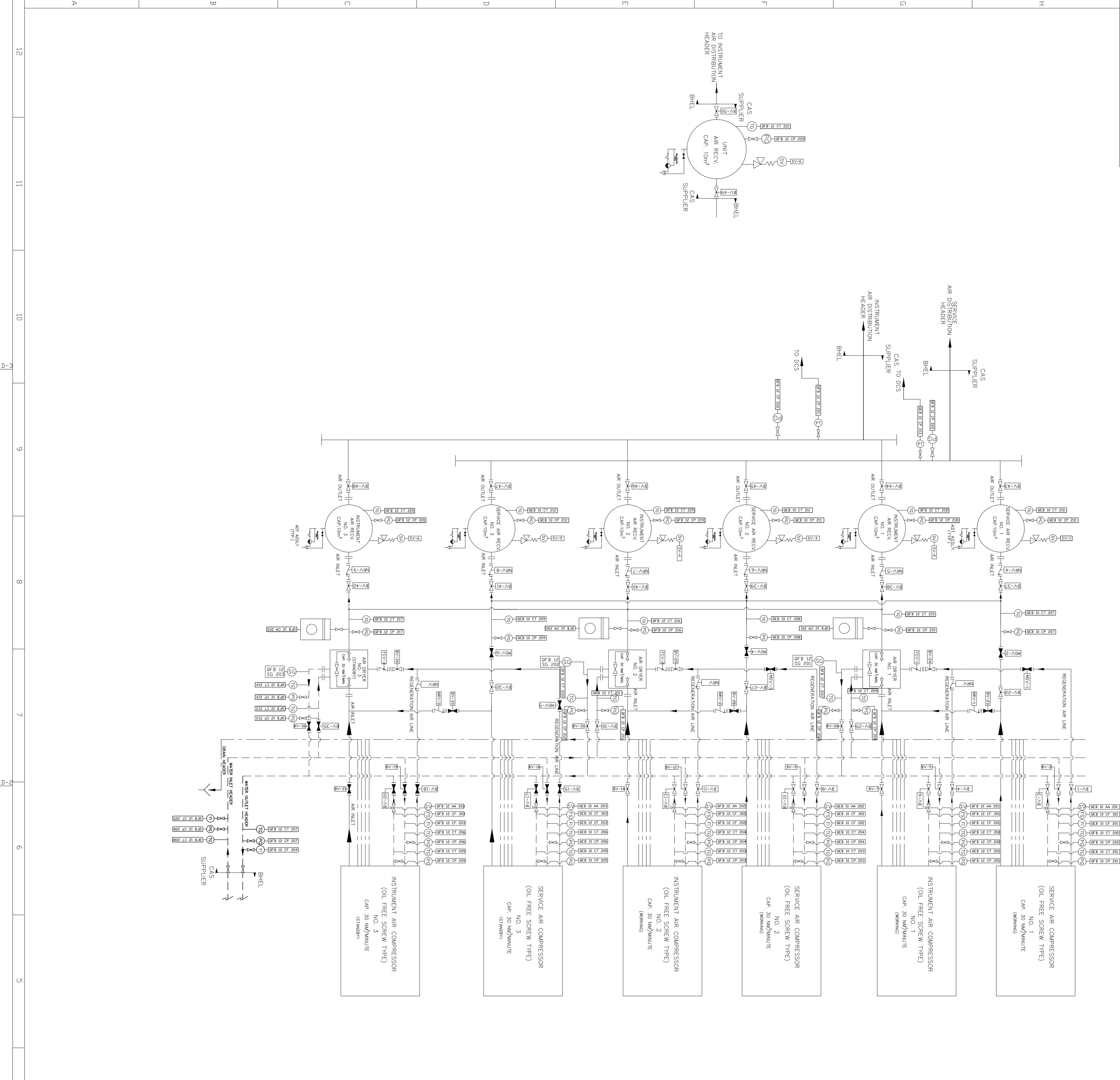
<b>Job</b>	Design, engineering, manufacturing, supply, Testing, commissioning , trial run , Handing over to customer of Compressed air system Package for 2x250 MW Barauni Extension Project unit # 8 & 9 at Begusarai , Bihar.
<b>Tender no</b>	PSER: SCT:BRM-M1320:12

<b>6</b>	Volume II M, Technical Specifications for compressed air system, Volume III – Guaranteed Power Consumption	Estimated Power consumption Figure for the compressed air system (for working drives only) considered is 980 KW only (for station).	The same appears to be on lower side, request you to kindly review the same.	Revise GPC figure attached.
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 It must not be used directly or indirectly in any way detrimental to the interest of the company.

FILE:- C:\skc\compressedAirsystem\Cutomer\IVC\PidCompressoralternative-1



LEGEND	
	BALL VALVE (OPEN)
	BAL VALVE (CLOSED)
	ISOLATION VALVE
	GLOBE VALVE (OPEN)
	GLOBE VALVE (CLOSED)
	RELIEF/SAFETY VALVE
	PRESSURE GAUGE
	FLOW INDICATOR
	PRESSURE GAUGE
	Y-TYPE FUNNEL
	FLOW SWITCH
	PRESSURE TRANSMITTER
	DEW POINT METER
	FLOW CONTROL VALVE
	STRAINER
	MOTORISED VALVE
	TEMP. GAUGE
	NON RETURN VALVE
	WATER
	AIR
	DRAIN

NOTES:-

1. THE GIVEN P&ID IS CONFINED TO INSTRUMENTS AND PIPING FOR COMPRESSOR HOUSE AREA ONLY
2. ALL INTERCONNECTING COMPRESSED AIR PIPING SHALL CONFORM TO IS: 1239 (HEAVY GRADE) OR (S):3589 G-410 AND GALVANISED AS PER IS:4736.
3. ALL COOLING WATER PIPING WILL BE CONFORMING TO IS:1239 (PART-I, HEAVY GRADE).
4. FITTINGS FOR AIR PIPING SHALL BE CONFORMING TO RELEVANT BIS STANDARD AND GRADE EQUIVALENT THAT OF PARENT PIPE GRADE.
5. COMPRESSED AIR PIPING HANDLING HOT AIR WILL BE SUITABLY INSULATED SO AS TO RESTRICT SURFACE TEMPERATURE TO 60 DEG C.
6. ALL PRESSURE & TEMPERATURE GAUGE SHALL 150 mm DIAL TYPE.
7. DRAIN PIPING UPTO THE NEAREST DRAIN POINT WITHIN THE AIR COMPRESSOR ROOM SHALL BE PROVIDED.
8. THE VALVES & INSTRUMENTATION INDICATED IN THE DRG. IS BARE MINIMUM. ANY ADDITIONAL VALVE &/OR INSTRUMENT REQUIRED FOR AUTOMATIC INTERCHANGABILITY OF SA TO IA SHALL BE ENSURE BY CAS SUPPLIER AT HIS END. NO PRICE IMPPLICATION SHALL BE GIVEN ON ACCOUNT OF ABOVE DURING DEC.

ALTERNATIVE - I

BHAR STATE ELECTRICITY BOARD  
 BARAUNI TPS, UNIT - 2 X 250 MW

JOB NO. 374  
 STATUS CONTRACT  
 DISTRIBUTION

REV	DATE	ALTD	CHD	APPD
00				

BHARAT HEAVY ELECTRICALS LTD  
 POWER SECTOR  
 PRODUCTS ENGINEERING MANAGEMENT  
 NIMDA

TITLE  
 P & I DIAGRAM FOR IA & SA SYSTEM  
 WITH ROTARY HOC AIR DRYER

DEPT	SCALE	DRAWING NO.
MA	~	PE-DG-374-555-A001

SHEET 1 OF 2 REV. 00  
 SIZE-A1

Guaranteed Power Consumption For Air Compressor System Shall be as per Following :

S.No. (1)	Description of Equipments (2)	Nos. of Equipments (3)		Total Guaranteed Power Consumption for Each Equipment at Motor Input Terminals & control Panel (4)	Duty Factor (5)	Total (KW) (6) = (3A)*(4)*(5)
		Working (3A)	Standby (3B)			
1	Serve Air Compressor (Oil free Screw compressor) 30 NM3/min at 8.0 Kg/cm2 pressure	2	1		1	
2	Instrument Air Compressor (Oil free Screw compressor) 30 NM3/min at 8.0 Kg/cm2	2	1		1	
3	Air Drying Plant Unit (Conventional Twin Tower type/ Rotary drun type as applicable)	2	1		1	
					<b>TOTAL</b>	<b>1080 KW</b>

Note :

1	Estimated Power Consumption Figure for the compressed air system (For Working Drives Only) considered is <b>1080 KW</b> (For station)
2	Bidders Guaranteed power consumption at motor input terminals ( Not Shaft Power) including power for control panel as furnished in guranteed schedule shall be demonstrated by the successful bidder during performance testing at works/site.
3	The price quoted by the bidder shall be loaded @ 160000/- for every additional kW increase in consumption from the base figure indicated at Note no. 1.0 above.
4	In case the successful bidder fails to establish / prove the guaranteed values of power consumption (base figure of auxiliary power consumption) on actual performance testing at the manufacturing works / site, penalty @ 160000/- per kW increase in power consumption figure shall be levied.

**FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Design, engineering, manufacturing, supply, Testing, commissioning , trial run , Handing over to customer of Compressed air system Package for 2x250 MW Barauni Extension Project unit # 8 & 9 at Begusarai , Bihar.	
Ref	1.0	Tender no PSER:SCT:BRM-M1320:12
	2.0	BHEL's NIT, vide ref no PSER:SCT:BRM-M1320:12 Dated 30/03/2012
	3.0	BHEL's TCN-01 , vide ref no PSER:SCT:BRM-M1320:TCN-01 Dated 20/04//2012.
	4.0	Other references (if any).

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, Integrity Pact (If applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)