CORRIGENDUM-02

Ref. no. : PE/PG/DRS/E-4823/2015 , **Date: 30-06-2015**

Project : 2X800 MW DARLIPALI STPP (SG)

Package: COMPRESSED AIR SYSTEM

ENQUIRY NO : PE/PG/DRS/E-4823/2015 Dated 13.05.2015

Subject: Pre bid Clarifications pertaining Technical Specification and Extension of Part-I Bid Opening & Offer Submission Date.

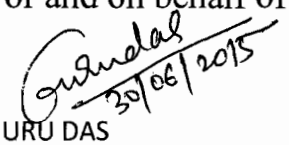
1-BHEL's response to pre bid queries pertaining to Technical Specification, Technical Specification No. PE-TS-403-555-A001 (rev00) are given in the attached Annexure-A.

Bidders are requested to submit their offer considering above. Those bidder who have already submitted their offer may please submit revise offer considering the above, if required.

2-Due date of tender submission for subject package is extended up to 21/07/2015 (2:00 pm IST) and bid opening up to 21/07/2015 (03:00 pm IST).

Please ensure the submission of your offer within due date,

Thanking You.
Yours Faithfully
For and on behalf of BHEL



GURU DAS

Sr. Engineer/PG-III-2

BHEL-PEM NOIDA

MOBILE NO-9560177922

ANNEXURE-A TO Corrigendum-02

Ref. no. : PE/PG/DRS/E-4823/2015 , **Date: 30-06-2015**

Pre Bid Calrification Sheet -Darlipali					
S.No.	**Page No.**	**Clause No.**	**BHEL Specification**	**Vendor Clarification**	**BHEL Reply**
1	34-346	3.11.06 & 3.11.07	Design pressure of intercooler , after cooler and oil cooler shall be 8 Kg/cm2 based on shut off head of cooling water pump. The cooler shall be designed for maximum heat load and at least 10 % design margin shall be provided in the number of tubes .	Design pressure for compressor coolers shall be 5.00 kg/cm2 (g)	**Bidder to follow specification.**
2	129-346	7.06.00	Noise level of motor shall be limited to 85 dB(A) except for BFP motor for which the maximum limit shall be 90 dBA . Vibration shall be limited with in limits prescribed in IS:12075/IEC60034-14. motor shall withstand vibration produced by driven equipment. HT motor bearing housing shall have flat surface in both X and Y direction , sutiable for mounting 80mmX80mm vibration pads.	We are offering TEFC Motors. Vibration probes shall be fixed on motor end shields. Hence separate vibration mounting pads shall NOT be provided.	**Bidder to follow specification.**
3	25-346	1.1.7	All airline valves shall be ball valve type. Valves for airline shall be cast steel body above 50 NB and forged steel body up to 50 NB with SS internals. Valves sizes 65 NB and above with flanged end, valve size 50 NB and below with screwed. For water service cast iron valves with GM internals as per relevant IS/equivalent and other applicable standards above 50 mm size. gunmetal valves as per IS-778/equivalent up to size 50 mm	Water line valves shall be butterfly valves with respective standards as per section C1, Sun Section III (NTPC Tech Specifications – VI, CS-9548/9549/9568/9573-102-2, Part – B, Sub section –III ME, clause No 1.13.00	**Bidder to follow specification.**
4	27-346	2.2	300 NB cooling water supply pipeline connection will be provided by the purchaser outside the compressor house(at 5 M from compressor house building) the return hot water shall be terminated by the contractor at same location . Further interconnection from these terminals points shall be in bidder scope.	As per Page 27-346, the cooling water supply and return header is 250 NB. As per Page 27-346 clause 2.2, size is 300 NB. Please clarifiy	**Cooling water supply and return line is 300 Nb only as per Page 27/347 Clause 2.2. Bidder to follow the specification.**
5	27-346	4.1.0	Compressor & air dryer shall be designed for cooling water (passivated from DM water) with inlet temp of 36 Deg C (max) with terminal pressure 6 Kg/cm2 and rise in temp shall be limited to 10 Deg C and pressure drop across compressed air system within terminal point shall be limited to 10 mcw. Qty of cooling water shall be 560 M3/Hr max considering working Equipments	Design pressure for compressor coolers shall be 5.00 kg/cm2 (g)	**Bidder to follow specification.**
6	38-346	5.01.05	An electrically operated automatic valve shall be provided on cooling water supply line of each compressor & dryer (if applicable) which will be automatically shut off the cooling water supply. In case of the compressor/dryer in not runnig for more than set time duration. suitable interlock shall also be	**Please explain : If required. This will be considered or not.**	**Bidder to follow specification.**
7	26-346	1.1.9	Control & Instrumentation-Individual Compressor control shall be through compressor mounted microprocessor based control panel . Each compressor shall be interface with DCS through gateway/convertor for start /stop, load/unload. From common control room including giving input for developing software at DCS(bh BHEL EDN) and hardware link for status monitoring , start /stop load/unload from CCR.	Noted How ever As per Manufacturing standard Elgi shall offer Modbus TCP/IP or Modbus RTU only no dual communcation possible	**Shall be as per technical specification.**
8	26-346	1.1.10	Control Cable from compressor House to HT switch gear & Signal cable cable between compressor house & DDCMIS(SG C & I) as specified elsewhere in technical specification Bidder shall also provide vibration monitoring system for all compressors and their motors as mentioned in different section of specfication	For Vibaration monitoring system Elgi shall provided Vibaration probes on HT motor and signals of the same shall be taken to LCP of compressors and these vibration datas can be hooked to Customer DCS through above mentioned soft link	**Bidder to follow specification.**
9	38-346	5.01.02	Any of compressor and air drying plant may be selectable for "shutdown", working or standby duty.	Such Selection not Applicable in our dryer and compressor.This can only achieved through CCP or these logics has to made in customer DCS. Please confirm wheather CCP is in our scope or BHEL will made logic in DCS	**As per technicalspecification, CCP is not in Bidder's scope. For remote operation bidder to provide necessary inputs to BHEL for developing software at DCS end (Clause no 1.1.9, page 26).**
10	38-346	5.01.03	On tripping of working equipment, the standby equipment shall come into operation autmatically in case of very low air pressure in the system	NA.This can only achied through CCP or these logics has to made in customr DCS.Please confirm wheather CCP is in our scope or BHEL will made logic in DCS	**Shall be as per technical specification.**
11	38-346	5.01.04	All abnormal condition used for tripping the compressor or any other equipment shall be provided with pre trip audio-visual indication/annunciation in the control panel.	annunciation and Audio is not possible in our compressor and dryer .Insted all trip and warnings available in compressor controller	**Shall be as per technical specification.**
12	38-346	5.01.06	Following indication shall be made available in control panels a) status of each compressor b) Instruement air pressure low/high c) Service air pressure low/high d) Dew point of instruement air e) status of ADP	A) Throught HMI of indicidual compressor and Dryer b) NA c)NA d)ON Air Dryer HMI e)On Air Dryer HMI	**Shall be as per technical specification.**
13			Electrical Scope Sheet Power Cable (LT cable) , control cable and screened control cable for a) both end equipment in BHEL scope b) both end equipment in vendor scope c) one end equipment in vendor scope and other end in BHEL scope d) one end equipment in NTPC scope.	Please provdie the LT Panel Distance from compressor room as Supply and E & C of LT (power Cable) , control cable is in Vendor Scope	**Location of LT MCC room is just adjacent to compressor room, bidder to refer General Layout Plan (page 342) attached with specification.**