

Corrigendum 1 dated Dec 20, 2014 to Tender Specification
BHEL PSSR SCT 1571

- A) The customer approved vendor lists for Welding Electrodes and Paints is mentioned below. All welding shall be carried out only customer approved Welding Electrodes and all painting shall be carried out by customer approved Paints. Regarding welding electrodes and paints the bidders shall consider 'BHEL approved' means 'customer approved' in published tender specification.

Customer approved Vendor Lists

Equipment/ Instrument	Category 1 Vendor	Category 2 Vendor
Welding electrodes	1. ESAB INDIA 2. ADVANI OERLIKON, INDIA 3. D&H (INDIA) PVT. LTD. 4. D&H (S) PVT. LTD	1. HYUNDAI ELECTRODES, INDIA 2. PADMA BALAJI, INDIA 3. L&T

ITEM DESCRIPTION	CATEGORY-I	CATEGORY-II
PAINTS AND DISTEMPERS	Berger Paints	Spectrum Decors
	Snowcem	Supa coat
	Asian Paints	Garware
	Berger paints	
	J&N Paints	
	Shalimar paints	
	ICI	
	Goodlass Nerolac	
WATER PROOF CEMENT PAINTS AND EMULSION PAINTS	Super Snowcem India Ltd.,	Supercem
	M/S. NITCO Paints Pvt Ltd.,	
	Asian Paints	
	Berger Paints	
	J& N Paints	
	Shalimar Paints.	

- a) **Category – I: Sub vendors accepted.** Based on past experience of NLC/Consultant.
- b) **Category – II: Sub vendors enlisted for future acceptance.** Such acceptance shall be based on the various details regarding capacity, capability, experience etc of the sub-vendor proposed by the Contractor. It is the responsibility of Contractor to get the details of the sub vendors under category II, compiled and submitted to NLC/consultant for scrutiny and acceptance. The acceptance criteria are mentioned below. However, NLC reserves its right to accept or reject any of the proposed vendors based on information available with them

Acceptance criteria for sub vendors:

- d) For all civil items except structural steel
 - i. It should conform to relevant Indian/international Standards.
 - ii. It should be of reputed makes supplied to similar construction/infrastructure projects.
 - iii. The Contractor should furnish documentary evidence to prove (i) and (ii) above.

- f) For Welding Electrodes:
 - i. The welding electrodes should be confirming to AWS and related BIS.
 - ii. The Firm should have executed orders for the supply of electrodes for an order value not less than Rs. 3 lakhs in a calendar year for any or all sizes of the subject electrode within last three(3) years as on the original scheduled date of tender opening.
 - iii. The Contractor should furnish documentary evidence to prove ii above.

B) Some of the bidders had raised queries in the published tender specification. The Clarifications issued by BHEL are furnished in the next twelve pages.

B) Clarification for Bidder's queries

<u>No</u>	<u>Reference clause</u>	<u>Existing provision</u>	<u>Bidder's query</u>	<u>BHEL's clarification</u>
1)	Notice Inviting Tender, SI No. v	Due date and time of submission.	Since this is special boiler in Indian scenario, needs some more time to get more details on erection. Hence request you to extend the bid submission due date upto 13 th Jan 2105.	Tender clause prevails
2)	Notice Inviting Tender and Annexure -1 – Pre qualification criteria	Tender No.	In NIT the tender no. is mentioned as BHEL:PSSR:SCT: 1571 whereas at pre-qualification criteria it is indicated as BHEL:PSSR:SCT : 1510 please confirm which is correct.	1510 is to be read as 1571
3)	Notice Inviting Tender and Annexure -2 Serial no. 22 of check list,	Tabular column showing Vessels pumps etc.	It is mentioned that manpower deployment is to be given for the work area like MS, HRH, CRH Piping etc. Since the critical piping is not in the scope of this tender it seems, there is some omission, please clarify.	Clause revised as below: Tabular column showing Category-wise, in detail. Data shall be split up under the work areas like Boiler, ESP, Rotating machines, Insulation, structures, ducts etc.

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4)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause No. 1.2.2cutting, edge / surface preparation, welding, grinding.....	Please clarify the scope of surface preparation and the method of cleaning. (i.e manual wire brush / power tool / blast cleaning.)	Please read along with Clause nos 1.14.3.18 & 1.14.3.24 in chapter XIV of Technical Conditions of Contract.
5)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause No. 1.2.6	Approximately 10000 MT materials may need to be shifted from storage areas at a radius of 7 km from erection site.	We presume that the shifting has to be done within the project site only. Please confirm.	No, It may be from out side of project premises
6)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause no 1.2.15	All the joints of column, horizontal beams and vertical bracings are bolted connections (HSFG bolt sizes between 24 - 36).	We presumed all structure connection as bolted joints and no welding is involved. If welding is envisaged please confirm the percentage of welding and bolted structures.	All main structures are bolted connections. However aux.structures / secondary structures / Hanging structures / standing structures will have welded connection like other boiler.
7)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause no 1.2.15	All the cross girders and ceiling girders are to be lifted by tandem operation (two crawler cranes) maximum assembled weight of 115t at the height of 127mtr	Please clarify the scope of crawler cranes required for unloading for this scope of work	Handling, Transportation & Unloading of any components less than 100MT is to be carried out by the contractor with his own crane,
8)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause no 1.2.15	Horizontal beams end plate machining may be required at site for maintain the verticality of column	We presumed this scope is come under major machining work /modification works, which is only carry out in BHEL workshop as extra works	Minor rectifications / providing splice spacers is in the scope of contractor. However required Raw material will be provided by BHEL

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9)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause No. 1.2.15, point no.9	Horizontal beams end plate machining may be required at site for maintain the verticality of columns.	Please provide some information on extent of machining involved at site.	Minor rectifications/ providing splice spacers is in the scope of contractor. However required Raw material will be provided by BHEL
10)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS Clause no 1.2.15	Separation of upper hanging house and standing structure 12nos jack may be required	Kindly confirm the scope of deployment of strand jack for this scope of works.(If the scope is under bidder please specify the capacity of jacks requirements with machine months)	Strand Jack not required, however required Hydraulic Jacks shall be provided by contractor.
11)	Chapter II of Technical Conditions of Contract. Clause no. 1.2.15 (Special Features)	Separation of upper hanging house & standing structure 12 Nos. Jack may be required.	Kindly clarify the scope of supply of 12 Nos. Jacks required for separation of upper hanging house and standing structure. If it is in bidder's scope, please confirm the capacity of the same.	Strand Jack not required, however required Hydraulic Jacks shall be provided by contractor.
12)	Volume IA, Part-I, Chapter – II SCOPE OF WORKS, Clause No. 1.2.15, point no.22	After completion of the standing structure temporary structure are to be erected between gap of	Please clarify the scope of supply of steel for temporary support and work involvement. (i.e whether only erection or fab & erection)	BHEL will supply the required structural steel, however fabrication & erection of structure is in the scope of contractor.

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13)	Volume IA, Part-I Clause 1.2.2, 1.3.7.4 and 1.12.13	The work to be 2 x 500 MT set The contractor shall provide arrange by him Certain packer plate free of cost	Please confirm that shims and packer plate shall be provided by BHEL free of cost.	Ref 1.3.7.4 & 1.3.7.5
14)	Volume IA, Part-I, Chapter – III FACILITIES IN THE SCOPE OF BIDDER / BHEL (SCOPE MATRIX) Clause no 1.3.2.1.2	Drawings for construction methods on bidder scope	Please confirm which type of construction drawing shall be under Bidders scope.	The bidder shall submit Proposed erection methodology for review and approval.
15)	Volume IA, Part-I, Chapter III, Clause No. 1.3.2.2	Open land for labour colony shall be provided by BHEL on rental basis (Chargeable to bidder) at the prevailing rate will vary from time to time.....	We have not envisaged any abnormal increase on the rental time to time.	Any revision by customer from time to time shall be applicable.
16)	Volume IA, Part-I, Chapter III, Clause No. 1.3.5.2	Any duty, deposit involved in getting electricity shall be borne by bidder.....	Since Electricity is providing by BHEL, if any duty applicable also shall be taken care by BHEL. Please confirm.	Please read along with clause No 1.3.5.6 of in Chapter III of Technical Conditions of Contract

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17)	VOLUME-IA PART-I Chapter – IV T&Ps and MMEs TO BE DEPLOYED BY BIDDER Clause no 1.4.2 (d)	8 T -14T MOBILE CRANE As required (Minimum 6 nos)	We presumed the mobile crane is only hydras	Commercially available, reliable safe operating cranes for loading & unloading are to be provided.
18)	VOLUME-IA PART-I Chapter – IV T&Ps and MMEs TO BE DEPLOYED BY BIDDER Clause no 1.4.2 (f)	Higher Capacity Trailer [above 120T) This trailer should be made available at site from commencement of Main Boiler erection to Separator Lifting	We presumed this trailer is used for transporting the separator from stores to site. Please provide the MOC of the separator for selection of suitable trailer for this works	It is not only for separator, but for all the requirement from commencement of Boiler erection to Separator erection
19)	Volume IA, Part-I, Chapter V, Clause No. 1.5.2	T&P to be made available by BHEL.....	Required strand jacks and strands also will be provided by BHEL. Please confirm.	No strand Jack is envisaged.
20)	VOLUME-IA PART-I Chapter – V Clause no 1.5.2 (j)	T& P 's and MME's is to be deployed by BHEL on sharing basis	As the critical piping is not in the scope of this tender please confirm for what purpose the induction heating machine is provided by BHEL	Links & Piping for interlinking SH headers and similarly for RH Headers are supplied with P91 materials.
21)	VOLUME-IA PART-I Chapter – V Clause 1.5.19 and serial no. 17, note to welding schedule	For diesel generator set power cable etc. at his cost. One set of annealing cable..... at his cost	As the critical piping is not in the scope of this tender operator for DG set and annealing cable etc. is not required, please confirm.	Links & Piping for interlinking SH headers and similarly for RH Headers are supplied with P91 materials.

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22)	Chapter VIII of Technical Conditions of Contract.– 1.8.1.1 (Weight Schedule) SI No. 41, PG-67	Coal Bunker - 1940	Kindly confirm the scope weight of SS Liners of coal bunker.	SS liners weight 50MT approx. per unit
23)	Volume IA, Part-I, Chapter XII	Grouting	Please provide the quantity of grouting to be considered in our offer.	Quantity of grout cement will be approximately similar to conventional 500MW boiler
24)	VOLUME-IA PART-I Chapter –XII FOUNDATIONS AND GROUTING Clause no 1.12.7	Total grouting of the columns / equipments including pocket grouting, grouting at the gap between foundation and base plates top surface of column / equipments is in the scope of the BIDDER. All the grouting should be carried out by non-shrink cement like conbextra GPI / Conbextra GP II / Shrinkkomp or its equivalent etc.	Please confirm the tentative requirement of grouting cement	Quantity of grout cement will be approximately similar to conventional 500MW boiler
25)	Volume IA, Part-I, Chapter XIII, Clause No. 1.13.1 & 1.13.3	Loading at BHEL/customer stores and storage yard, transport to site..... Loading at storage yard and transportation to site.	We presume all ODC consignments shall be unloaded at site directly using BHEL heavy cranes. Please confirm.	Please note that BHEL will provide cranes for the items weighing more than 100MT

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26)	Volume IA, Part-I, Chapter XIII, Clause No. 1.13.6In case it is necessary to shift and re-stack the materials kept at work area/site to enable other agencies to carry out their work.....	We will inform to BHEL regarding our places of stacking at erection point. We have not envisaged any multiple handling of equipment's. Kindly confirm.	Space at and around Construction site should not be used for prolonged storage. In case area to cleared for other agency, the same shall be carried out by the contractor within the quoted rate.
27)	VOLUME-IA PART-I Chapter -X GENERAL Clause No. 1.10.2.14	If applicable, all boiler, piping layout drawings received from BHEL for pipeline erection to be submitted to Boiler Inspector for approval. After approval of the above drawing, Erection of pipe line to be started. Inspection fee and registration fee as mentioned in Chapter VIII of Special Conditions of contract (Volume-I Book-II) shall be paid by BHEL.	We presumed all drawing approval will be in the scope of BHEL and scope of bidder is limited to for getting approval from IBR authorities for erection works only. The statutory fees and incidental expenses shall be borne by BHEL	Erection approval from Local IBR is in the scope of contractor. Only statutory fee will be borne by BHEL
28)	VOLUME-IA PART-I Chapter - XIV ERECTION Clause No. 1.14.2.2 (f)	The Bidder should get the formal approval from the Boiler inspectorate to take up the boiler erection work (mainly pressure parts, piping etc).Necessary assistance will be extended by BHEL for the same		Erection approval from Local IBR is in the scope of contractor. Only statutory fee will be borne by BHEL

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29)	Volume IA, Part-I Chapter –V and Chapter – XIV Clause no.1.5.2 and clause no. 1.14.2.6	100 Ton crawler crane Free of charge	Please confirm that heavy lift crane for erection of column for third tier onwards, ceiling girder, roof structure, silencers etc. Shall be provided by BHEL free of cost.	Ref 1.5.2.c & 1.5.8.1.ii of chapter XIV of Technical Conditions of Contract.
30)	Volume IA, Part-I Chapter –V and Chapter – XIV Clause no.1.5.2 and clause no. 1.14.2.6	Camber, sweep..... consultation with BHEL	Please confirm that 600 MT Capacity crane shall be provided by BHEL free of cost	Ref 1.5.2.c & 1.5.8.1.ii of IN chapter XIV of Technical Conditions of Contract.
31)	Volume IA, Part-I Chapter - XIV ERECTION Clause No. 1.14.2.6	Bunker bins	As this is an erection contract please confirm that bunker bins shall be supplied in fabricated condition duly fitted with Stainless steel Lining.	Stainless steel lining has to be fixed at site within the quoted rate.
32)	Volume IA, Part-I Chapter - XV Clause No. 1.15.17	The contractor for radiography work personal from BARC	Normally BARC do not provide COBALT- 60 source as such, we shall use UT where RT with IR192 is not possible, please confirm.	Cobalt 60 is available at BARC with some restrictions. Possibility of UT can be explored depending up on the case to case.
33)	Volume IA, Part-I Chapter - XV Clause No. 1.15.55	All charges towards by contractor	Please confirm that test piece for welder shall be provided by BHEL free of cost.	Ref Clause 1.15.7

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34)	Volume IA, Part-I Chapter - XVII Testing & Commissioning Clause No. 1.17.48	<p>After floating of safety valves, the commissioning activities and and post commissioning activities are as follows:</p> <ul style="list-style-type: none"> a) Pipe fitters b) Millwright Fitters c) HP& structural welders d) Riggers e) Unskilled workers f) Supervisors g) Electricians h) Ladders i) Sheet metal fabricator/fitter j) Any other category of workers as may be required. <p>Further in addition to the above, contractor has to arrange the following minimum manpower exclusively for assisting BHEL commissioning engineers during stabilization and trial operation period. This manpower will be directly controlled by BHEL commissioning engineers.</p>	<p>Kindly confirm the following points:</p> <ul style="list-style-type: none"> 1) The period of months from trial operation to hand over of unit is not given in project schedule. Kindly specify that. 2) Manpower requirement are given in nos. Please specify the manpower requirement in shift/day or mandays / Manhours. 3) Please confirm the period for stabilization or approximate manpower requirement for BHEL in mandays / Manhours 	<ul style="list-style-type: none"> 1) Contractor shall provide the manpower for another three months from trial operation or submission of final bill with material reconciliation whichever is later. 2) Category & Nos are indicative. Contractor shall provide the required Nos & categories round the clock as per the site requirement. 3) As clarified above and Clause 1.17.48 is revised as under After floating of safety valves, the commissioning activities and and post commissioning activities are as follows: <ul style="list-style-type: none"> a) Pipe fitters b) Millwright Fitters c) HP& structural welders d) Riggers e) Unskilled workers f) Supervisors g) Electricians h) Ladders i) Sheet metal fabricator/fitter

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		<ol style="list-style-type: none"> 1. One Engineer in-charge for three shifts. 2. Two supervisors per shift for three shifts 3. Three fitters per shift for three shifts 4. Six helpers per shift for three shifts <p>It shall be specifically noted that the above employees of the contractor may have to work round the clock along with BHEL commissioning Engineers and hence, overtime, may be involved. The contractor's quoted rate shall be inclusive of all these factors also.</p>		<p>j) Any other category of workers as may be required.</p> <p>Further in addition to the above, contractor has to arrange the following minimum manpower exclusively for assisting BHEL commissioning engineers during stabilization and trial operation period. This manpower will be directly controlled by BHEL commissioning engineers.</p> <ol style="list-style-type: none"> 1. One Engineer in-charge for three shifts. 2. Two supervisors per shift for three shifts 3. Three fitters per shift for three shifts 4. Six helpers per shift for three shifts <p>It shall be specifically noted that the above employees of the contractor may have to work round the clock along with BHEL commissioning Engineers and hence, overtime, may be involved. The contractor's quoted rate shall be inclusive of all these factors also.</p>

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35)	Volume IA, Part-I Chapter - XVIII Painting Clause No 1.18.1.11 and clause 11.1, 11.2 (3, 4, 5 & 6) and of painting schedule section – XI.	Each coat (primer intermediate, finish) schedule for required DFT	As the contractor has to apply final coat of paint please confirm that primer and intermediate coat shall be deleted from the scope of this tender. As the specification of finish paint is given under heading F1, F2, F3, F4, F5 and F6 please confirm what is the area of each type of finish paint?	Ref 1.18.1.5. One coat of intermittent & finish paint is in the scope contractor. Any touch-up or repair on the primer already applied at works shall also be carried out by the contractor with in the quoted rate.
36)	Volume IA, Part-II, Chapter-1, Sl.No.1	Over run compensation	Please pay over run compensation at actuals.	Tender clause prevails
37)	Volume IA, Part-II, Chapter-1, Sl. No.2if the final price of successful bidder is lesser by 'more than 20%' of BHEL estimate then only.....	Please provide the BHEL estimate for our reference.	Tender clause prevails
38)	Volume IA, Part-I Chapter -1 Clause No RA 2.7 of reverse auction	In line with NIT terms during the auction	The scope seems to be for supply contractor more over service tax shall be paid extra by BHEL we feel that this clause should be deleted, please confirm.	Clause revised as below: In line with the NIT terms, at "Total Cost to BHEL" as applicable like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors during the Auction.

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39)	VOLUME-IA PART-II Chapter – 7 Indicative guidelines for boiler erection ERECTION OF HANGING BOILER HOUSE	Basic for ALSTOM Proposal of Auxiliary Structure: The Hanging Boiler House (so- called HBH) will be erected as a standing structure on top of the Standing Boiler House (so-called SBH). This procedure is in contrast to the standard erection procedure which consists of erecting the HBH on the ground as a standing structure and lifting up into position with the help of strands and strand jacks attached to the Main Steel Structure cantilevers. • Lifting with the help of strand jacks	Kindly confirm the scope of deployment of strand jack for this scope of works. (If the scope is under bidder please specify the capacity of jacks requirements with machine months)	Strand Jack is not envisaged.

Bidders are requested to consider this corrigendum as part of tender specification and quote accordingly.
All other conditions of the tender specification remain unchanged

Manager / Subcontracts