

**BHARAT HEAVY ELECTRICALS LIMITED**

[A Government of India Undertaking]

Ramachandrapuram, Hyderabad, 502032, A.P. India
Phone 040-23184526, 23182322 FAX:040-23021910, 1954**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**

(भारत सरकार का उपक्रम)

रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत

RFQ NO :

PURCHASE DEPARTMENT**ENQUIRY****क्रय विभाग**

जांच (ई मेल : tenderbox@bhellhyd.co.in)

SHEET:1

OF :1

HY17001 C REV.NO.0	Phone 091-40-23184526 091-40-23182322	FAX : 091-40-23021910 091-40-23021954	PURCHASE DEPARTMENT			
GSTIN:		Enq/Collective No :E9AWS00058	Enq.Dt. : 14.09.2023	No.Of Items :6	DUE Dt. OF QUOTN. : 25.09.2023	

Office Copy

Please submit your lowest quotation in sealed cover superscribed with Enquiry No./Collective No.(RFQ No) and due date subject to our terms and conditions attached , for the materials mentioned below. Your offer has to reach us on or before due date by 11.00 Hours (IST) and will be opened at 14.00 Hours.(IST).If our Enquiry No./Collective No.(RFQ No) and tender due date are not super scribed on the tender cover , your offer shall be summarily rejected. Incomplete offers and late offers will not be considered.

SL NO	Purchase Req.no	item no	Material Code, HSN No.	Drg no - Ver , Rev & Spec - Ver , Rev,Spec-Var	Description	Unit	Qty	Delivery Date	Schedule Qty
1	1700036320	10	31622600454-00SC	31622600454-,00,,	CHANNEL ASSEMBLY	EA	1.000	20.12.2023	1.000
2	1700036320	20	31622600459-00SC	31622600459-,00,,	SHELL ASSEMBLY(LPH-3)	EA	1.000	25.11.2023	1.000
3	1700036320	30	31623100104-00SC	31623100104-,00,,	SHELL ASSEMBLY(LPH-4)	EA	1.000	25.11.2023	1.000
4	1700036320	60	31623100106-00SC	31623100106-,00,,	CHANNEL ASSLY ID1570X36 THK	EA	2.000	25.11.2023	1.000
5	1700036320	40						25.11.2023	1.000
6	1700036320	70	31623100114-00SC	31623100114-,00,,	SHELL ASSEMBLY(LPH-5)	EA	1.000	20.12.2023	1.000

Special Remarks

CheckList of Quality Interventions:

BHEL reserves the right to enforce any or all of the following checks during execution of the order.
There is no additional cost to the vendor on account of these checks.

TEST CERTIFICATE REQD: GUARANTEE REQ : SAMPLE REQD : BID TYPE : TWO PART	For and on-behalf of Bharat Heavy Electricals Limited. Mithlesh Kumar BHEL/HEF/SC
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Pre-Qualification Criteria for LP Heater Shell and Channel Fabrication

The BIDDER has to compulsorily meet the Qualifying criteria indicated in section 1 to get qualified. Otherwise the technical offer will not be considered.

SECTION: 1

S.NO	Requirement	Vendors Response
1.1	Only those vendors shall quote who mandatorily meets the clause nos : 1.2 to 1.5	
1.2	Vendor shall have facility for fabrication for LP Heater Shell and Channel Assembly	
1.3	Vendor should have fabricated and supplied at least one LP Heater shell and Channel in last 2 years without any deviation. PO Copy, Inspection report copy of LP Heater Shell and Channel shall be submitted. Phone number and e-mail of the organization who placed the order for LP Heater shell and Channel fabrication shall be submitted.	
1.4	Vendor shall not outsource fit-up and welding activities to other parties	
1.5	BHEL reserves the right to accept or reject the offer based on the assessment of their technical capability. BHEL reserves the right to verify the information provided by the Vendor by taking feed back or by visit to vendor works. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.	

SECTION: 2

S.NO	Information	Vendors Response
2.1	Working space under shed.	
2.2	No of cranes, capacity of each crane	
2.3	No of job rotators, capacity of each rotator	
2.4	No of welding machines available (SMAW, SAW)	

Prepared by

[Handwritten Signature]
17/10/2023

Approved by

[Handwritten Signature] 17/10/2023
A. CHANDRA SEKHAR
अपर महा प्रबंधक/इंजि. (एचई एवं एफ)
Addl. General Manager/Engg. (HE&F)/Technology
बी एच ई एल, हैद/ BHEL, HYD-502 032

SPECIAL CONDITIONS OF CONTRACT (SCC) ENQ. NO. E9AWS00058 Dt:14.09.2023

DUE DATED: 25.09.2023

SI.NO	DESCRIPTION	BHEL REQUIREMENT	VENDOR'S CONFIRMATION
1	TWO-PART BID	Offer shall be submitted in two part bid system against this enquiry. Part-I shall consist of Techno-Commercial bid with all required documents and Price shall be fed in Part-II.	
1.a	TECHNO-COMMERCIAL BID	Techno-Commercial Bid shall essentially consist of: (i) Bidder's confirmation of BHEL drawing/Specification & technological scope. (ii) Bidder's confirmation of BHEL Quality plan (if applicable) (i) Duly filled in signed and stamped Special Contract Conditions (SCC). (ii) Duly filled in signed and stamped Instructions to Bidder (ITB). (iii) Duly filled in and completed in all respect ITB ANNEXURE-II (Framework Confidentiality Agreement cum Underatking) All the above documents shall be duly authenticated by signature and official seal of the company. (iii) Udyam Registration Certificate for MSE vendors. Note: Bid shall be complete in all respects including all the documents / information required for techno-commercial evaluation. Incomplete offers shall be liable for rejection.	
1.b	PRICE BID	Vendor shall quote Rate on Rs/kg basis The rate quoted shall be inclusive of conversion charges, all consumables, handling charges and dispatch of finished jobs to BHEL (HPEP) Stores. Quoted price shall be on firm basis. No revision of prices will be entertained after the tender is opened.	
2	DETAILS OF JOB	Manufacturing LP Heater Shells and Channels Assly as per BHEL drawings/DCA and technological scope/Quality plan with BHEL materials & in line with NIT Terms & Conditions	
3	QUANTITY (Aproximately)	37,368.00 kgs for (03 sets and each set consists of 01 Shell assly and 01 Channel Assly).Details of items are mentioned in BOQ.	
4	VENDOR QUALIFICATION	Vendor's offer is subjected to our final customer approval (NTPC)	
5	DELIVERY	To be delivered with in 45 days from the date of receipt of last SMIV material.	
6	SCOPE OF MATERIAL SUPPLY AND TRANSPORTATION CHARGES	Collection of raw materials from BHEL,R.C. Puram, Hyd to vendor works and supply of the finished equipment from vendor works to BHEL, R.C. Puram store is in vendor scope, that means to and fro transportation charges are to be borne by vendor. Price submitted by bidders shall be inclusive of the above transporation charges. In case, even after one week from the intimated date, vendor does not place the vehicle for collection of ready materials from BHEL, then BHEL will supply the raw materials and transportaion charges shall be deducted from vendor as per BHEL norms.	
7	TOOLS	Tools,gauges,jigs & fixtures and instruments will not be supplied by BHEL	
8	REJECTION OF CONDITIONAL OFFERS	Conditional offers if any submitted by the firms will not be acceptable.	
9	MODE OF TENDER FINALIZATION	There shall be no Reverse Auction in this tender. Thus tender shall be finalized through price bid opening.	

10	RISK PURCHASE	In case of abnormal delays (beyond the maximum late delivery period as per Penalty clause) in supplies / defective supplies or non-fulfillment of any other terms and conditions given in Purchase Order, BHEL may cancel the Purchase Order in full or part thereof, and may also make the purchase of such material from elsewhere / equivalent market price at the risk and cost of the supplier. BHEL will take all reasonable steps to get the material from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. Nonperformance of contract attracts penal provisions inline with BHEL's Suspension of Business dealings	
11	QUANTITY DISTRIBUTION	Total quantity will be split between two sources. 25,761.00 kg (02 sets) of items will be awarded to L1 vendor. 11,607 Kg (01 sets) of items will be counter offered to L2 vendor at L1 price. if L2 vendor doesn't accept the L1 rate through counter offer ,then L2 quantities will be offered to next ranking vendors. If no vendor accept the counter offer price then total quantities will be ordered on L1 vendor.	
12	SPLITTING SPECIFIC CLAUSE	As splitting provision is envisaged in this tender, bidders will be provided an opportunity during techno-commercial evaluation. a. To withdraw any commercial deviations having loading criteria. b. Accept revised common commercial terms with or without impact bid. In case any bidder does not agree, his offer will be rejected.	
13	PAYMENT TERM	75% payment will be made within 45/60/90 (MSE/Medium Enterprise/Non MSME) days from the date of receipt of finished items at our works against GR and 25% will be paid after material accounting is done. Note: A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of submission of complete set of documents as per PO whichever is later. Payment will be made on acceptance of Material. B. MSEs (covered under MSME Act) need to register and renew periodically and update the same with BHEL C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery date or the amount actually paid whichever is less. D. Adherence to the above time schedule of payment is contingent upon Bidder complying with GST provisions and availment of Input Tax Credit by BHEL before the date of payment. E. In case of packaged items, 10% of supply value will be retained till completion of total supplies. F. Bidders to comply with clause 11 on GST requirements	
14	VALIDITY OF OFFER	Your Offers must be kept valid for a period of 90 days from the date of bid opening and in the event of our acceptance of your offer the prices finalized should remain firm for ""one year"" from the date of finalisation of tender(approval of PO note). The finalised rates will be renegotiated in case if BHEL wants to extend the contract for one more year on mutual acceptance basis.	

15	PENALTY	In the event of delay in supply of goods, a penalty of 0.5% per week or part there of shall be levied on the undelivered portion subject to a maximum of 10% of the order value.	
16	SCRAP	Scrap Cost will be deducted as per BHEL norms after the material accounting is done.	
17	CHANGE IN WEIGHT	Any change in weight of components either lower or higher side due to non-availability of particular raw material and subsequent change proposal to higher thickness/lower thickness shall not attract for amendment of PO and therefore payment of increased or decreased cost. Amendment of PO will be done only when net weight of drawing has increased/decreased due to Engineering oversight.	
18	INSPECTION	Stage and final inspection shall be carried out by BHEL QC/BHEL TPIA and or Customer (as applicable). Tests & Inspection shall be in line with drawing and technological scope/approved quality plan. Vendor shall raise inspection call accordingly.	
19	DRAWINGS	a) These drawings are the property of BHEL. Copying or circulating or misuse of these drawings or parts of it by vendor is not permitted and will have to face legal consequences if found so. b) Assembly drawings shall be provided along with enquiry. However complete drawings will be given at the time of placement of order.	
20	CLARIFICATION	If any further clarification is required kindly depute your representative for discussion before submitting your offer. Contact phone no: 040-23183555 mob: 7799181180/9490758635/9959477023. Mail ID: mithlesh@bhel.in , marisa@bhel.in , nagarjunasagar339@bhel.in	
21	GUARANTEE	Equipment shall be guaranteed against all manufacturing defects for a period of 24 months after supply or 18 months after commissioning whichever is later. Defects noticed shall be replaced / rectified at free of cost by the supplier.	
22	LOADING/UNLOADING FACILITIES	You must have adequate material handling facilities for safe unloading of raw materials/loading of finished products.	
23	INSPECTION	The goods will be cleared for dispatch on provisional basis. On receipt of the goods at our BHEL shop/site, the goods shall be subjected to inspection. And any defects noticed during assembly, testing or use, notwithstanding the same may have been passed, certified and paid for – is to be rectified by the subcontractor, in whole or in part, as the case may require, at their own cost. In the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk & cost of subcontractor. The cost of rework or rejection, and any cost of freight incidental to such work will be to the subcontractor's account. Thus, Our acceptability of the goods shall be final.	
24	CONSEQUENCES OF REJECTION	In the event of any rejection arising due to the workmanship or due to mishandling of assemblies or components or any kind of damage which renders the assemblies unfit for use, the cost of each assembly shall be recovered along with taxes & duties as per BHEL norms from the bank guarantee being furnished by vendor.	
25	RIGHT OF CANCELLATION	BHEL shall have the right to cancel the contract wholly or in part in case it is obliged to do so on account of any decline, diminution, curtailment or stoppage of business.	

26	CONSEQUENCE OF FAILURE TO EXECUTE THE ORDER	After placing PO, in case vendor fails to execute the order due to reasons attributable to vendor, it is vendor's obligation to return the raw material to BHEL, failing which BHEL will bring back material as per transport contract and the amount will be taken/deducted from available bills of vendor. Further action will be initiated on vendor for non performance of contract as per BHEL norms.	
27	PACKING	For any loss or damages arising out of improper packing and dispatch, the vendor will be held responsible	
28	TAXES & DUTIES	Applicable taxes and duties to be mentioned in the offer.	
29	BANK GUARANTEE	For material valuing upto Rs. 50,000/- per SCO no BG is required. For material valuing more than Rs. 50,000/- per SCO , 10% of the material value shall be provided as BG specific to enquiry with sufficient validity minimum six months or any other financial instrument as specified by BHEL without which PO will not be released.	
30	DISCRETION OF ACCEPTANCE	BHEL reserves right to accept or reject any tender or a portion thereof without assigning any reason whatsoever. BHEL has the right to refloat or short-close the Tender if L1 price is not the lowest acceptable price, or for other reasons.	
31	MSE CLAUSE	"MSE suppliers can avail the intended benefits only if they submit along with the offer, Udyam Registration Certificate. Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through E-Procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted Officer."	
32	INDEMNITY	Subcontractors shall indemnify BHEL against the following: (A)All claims for injury or damage caused by the sub contractor's negligence or the negligence of subcontractor's employees or arising from any defect in the goods supplied or on the work carried out by the subcontractor's. (B)All claims for injury to the subcontractor employees or agents employed whilst on BHEL premises.	
33	GENERAL	Any change in the address/reduction in qualified workplaces/ownership of the subcontractor's unit during the operation of the contract will have to be made only after getting the specific written approval from BHEL. Any deviation found later will be dealt with as deemed fit, including cancellation of registration.	
34	ACTION AND COMPENSATION IN CASE OF BAD WORKMANSHIP	If any work has been executed with unsound, imperfect or bad workmanship or with materials of inferior quality, the Sub-contractor shall on demand in writing from BHEL specifying the work, material/articles complained of, notwithstanding that the same may have been passed, certified and paid for, forthwith, rectify the work so specified in whole or in part as the case may require, at their own cost and in the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk and cost of the Sub-contractor.	

35	CONFLICT OF INTEREST	<p>A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder, found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:</p> <ul style="list-style-type: none"> a) they have controlling partner (s) in common; or b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or c) they have the same legal representative/agent for purposes of this bid; or d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; or f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following: <ul style="list-style-type: none"> 1. The principal manufacturer directly or through one Indian agent on his behalf; and 2. Indian/foreign agent on behalf of only one principal, <p>or</p> <ul style="list-style-type: none"> g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid, or h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business. 	
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Note: The above terms and conditions are applicable for this tender. All the remaining terms and conditions are as per ITB.

VENDOR'S SIGNATURE WITH COMPANY SEAL

Material 31622600459-00SC
 SHELL ASSEMBLY (LPH-3)
 Group 50430367 Grp.ct 1
 LSize From 0
 Use 1

Plant P006

LSize To 99,999,999 EA
 Status 4 PlantP006

Sequence 0 Seq. Cat. Std.seq.
 Operation 0010 Work Ctr DA9995

SHELL ASSEMBLY LPH-3 NTPC PATRATU

SCOPE OF SUB CONTRACT

Reference QP no: HYQA/SSMQP/HE/510/5096
 Equipment : SHELL ASSEMBLY
 Code : ASME SEC. VIII DIV-1 2017 ADDENDA NIL +
 HEI 9th EDN.
 Inspection : QC AND NTPC
 Radiography : SPOT
 L-Seam of S1 nozzle shall be 100 % RT.

WO's	Vessel No's	Unit
P-1032328800-16226	2559	3

DETAILS OF WORK.

1. All materials for the equipment will be supplied as per part list.
2. Materials will be supplied with BHEL QC and NTPC attestation marks as indicated in part list.
3. Job shall be loaded on BHEL & NTPC approved vendors only.
4. Welding procedures and welders qualification shall be as per ASME sec. IX under BHEL & Customer only shall be employed on the job.
5. Transfer & material attestation marks on each of the finished part in presence of BHEL QC and customer as mentioned in QP
6. Assemble all parts as per the drawing. Individual parts are to be manufactured and Machined as per their drawings/ as mentioned in part list remarks, as required in assembly.
7. The equipment shall be manufactured completely as per the drawing and part list dimensions.
8. Strictly follow stage inspections by QC and NTPC as shown in the quality plan.
9. All notes/remarks on drawings and quality plan shall be strictly followed.
10. The holes on the flanges must be straddled w.r.t. vertical axes and equi. spaced.
11. Care should be taken to avoid distortion during cutting of openings on shell for nozzles and during welding of nozzles. Holes for couplings shall be drilled during shell assembly. Care shall be taken during welding of S1 nozzle to shell assembly to avoid distortion.
12. Maintain / follow the heights, Vertical axes, horizontal axes, "L"-seam orientation and nozzle orientation as shown in drawings.
13. Root runs of all butt and groove welds shall be examined by PT.
14. All back chip welds shall be examined with PT. Also back chip lifting lugs for DP test. Conduct DP test and weld completely as per their individual drawings.
15. All completed welds shall be examined by PT.
16. Inspection of PT, Fit ups and inspection of RT films by QC and NTPC shall be strictly as per Quality plan
17. Pre bending allowance plates is provided on shell segments, S1 nozzles and roller pad for rolling and start & end plates shall be adjusted from the pinching allowance, and shall returned back to BHEL. S1 nozzle shall be rolled to inside radius $\varnothing 339.5\text{mm}$. Developed length is 2183mm (without pinching allowance).
18. Keep shell segment having bevel 20 deg. without root as open end of the shell assembly for welding with Skirt segment as shown in drawing.

- Refer detail "B" given in the drawing.
- 19. During the fit up of dished end to shell a reference line would be marked on the shell, at a distance of 100mm, from the joint which would then be transferred back, after welding, to identify weld line.
- 20. Insert and tack weld (at four locations) end ring at open end of the shell assembly to avoid distortion and send shell assembly to BHEL along with this end ring in tack welded condition. Note: Full welding of ovality ring to shell assembly should not be done.
- 21. Joints identification of L and C-seams shall be marked near seams as per drg .
- 22. Flush grind all the L and C seams completely from inside.
- 23. After completion of the equipment check the roundness and ovality of the assembly as per ASME code and as per drawings.
- 24. Final inspection of visual and dimensional conformity as per drawings by QC and NTPC shall be strictly as per Quality Plan.
- 25. Total documentation, packing including raw material certificates shall be furnished to BHEL.
- 26. After final inspection, send the equipment to BHEL works.

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Ctrl Key ZP01
 Base Qty
 Operation 0020 Work Ctr DA9863
 Ctrl Key QFNL
 Base Qty

 1 EA
 Inspection by QC.
 1 EA

LP-3 S/A

Material 31623100104-00SC Plant P006
 SHELL ASSEMBLY (LPH-4)
 Group 50430395 Grp. ct 1
 LSize From 0
 Use 1
 Sequence 0 Seq. Cat. Std. seq.
 Operation 0010 Work Ctr DA9995

LSize To 99,999,999 EA
 Status 4 PlantP006

SHELL ASSEMBLY LPH-4 NTPC PATRATU

SCOPE OF SUB CONTRACT:

Reference QP no: HYQA/SSMOP/HE/510/5096
 Equipment : SHELL ASSEMBLY
 Code : ASME SEC. VIII DIV-1 2017 ADDENDA NIL +
 HEI 9th EDN.
 Inspection : QC AND NTPC
 Radiography : SPOT

WO's	Vessel No's	Unit
P-1032328900-16231	2560	3

DETAILS OF WORK.

1. All materials for the equipment will be supplied as per part list.
2. Materials will be supplied with BHEL QC and NTPC attestation marks as indicated in part list.
3. Job shall be loaded on BHEL & NTPC approved vendors only.
4. Welding procedures and welders qualification shall be as per ASME sec. IX under BHEL & Customer only shall be employed on the job.
5. Transfer & material attestation marks on each of the finished part in presence of BHEL QC and customer as mentioned in QP
6. Assemble all parts as per the drawing. Individual parts are to be manufactured and Machined as per their drawings/ as mentioned in part list remarks, as required in assembly.
7. The equipment shall be manufactured completely as per the drawing and part list dimensions.
8. Strictly follow stage inspections by QC and NTPC as shown in the quality plan.
9. All notes/remarks on drawings and quality plan shall be strictly followed.
10. The holes on the flanges must be straddled w.r.t. vertical axes and equi. spaced.
11. Care should be taken to avoid distortion during cutting of openings on shell for nozzles and during welding of nozzles. Holes for couplings shall be drilled during shell assembly.
12. Maintain / follow the heights, Vertical axes, horizontal axes, "L"-seam orientation and nozzle orientation as shown in drawings.
13. Root runs of all butt and groove welds shall be examined by PT, and shall be offered to BHEL QC for inspection.
14. All back chip welds shall be examined with PT, and shall be offered to BHEL QC for inspection. Also back chip lifting lugs for DP test. Conduct DP test and weld completely as per their individual drawings.
15. All completed welds shall be examined by PT.
16. Inspection of PT, Fit ups and inspection of RT films by QC and NTPC shall be strictly as per Quality plan.
17. Pre bending allowance for plates is provided on shell segments and roller pad for rolling and start & end plates shall be adjusted from the pinching allowance, and shall returned back to BHEL.
18. Keep shell segment having bevel 20 deg. without root as open end of the shell assembly for welding with Skirt segment as shown in drawing. Refer detail "B" given in the drawing.
19. During the fit up of dished end to shell a reference line would be marked on the shell, at a distance of 100mm, from the joint which would

- then be transferred back, after welding, to identify weld line.
- 20. Insert and tack weld (at four locations) end ring at open end of the shell assembly to avoid distortion and send shell assembly to BHEL along with this end ring in tack welded condition. Note: Full welding of ovality ring to shell assembly should not be done.
- 21. Joints identification of L and C-seams shall be marked near seams as per drg .
- 22. Flush grind all the L and C seams completely from inside.
- 23. After completion of the equipment check the roundness and ovality of the assembly as per ASME code and as per drawings.
- 24. Final inspection of visual and dimensional conformity as per drawings by QC and NTPC shall be strictly as per Quality Plan.
- 25. Total documentation, packing including raw material certificates shall be furnished to BHEL.
- 26. After final inspection, send the equipment to BHEL works.

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Operation	0020	Ctrl Key	ZP01	
		Base Qty		1 EA
		Work Ctr	DA9863	Inspection by QC.
		Ctrl Key	QFNL	
		Base Qty		1 EA

LP4 S/A

Material 31623100114-00SC
 SHELL ASSEMBLY (LPH-5)
 Group 50430424 Grp.ct 1
 LSize From 0
 Use 1

Plant P006

LSize To 99,999,999 EA
 Status 4 PlantP006

Sequence 0 Seq. Cat. Std. seq.
 Operation 0010 Work Ctr DA9995

SHELL ASSEMBLY : LPH-5 NTPC PATRATU

SCOPE OF SUB CONTRACT

Reference QP no: HYQA/SSMQP/HE/510/5096
 Equipment : SHELL ASSEMBLY
 Code : ASME SEC. VIII DIV-1 2017 ADDENDA NIL +
 HEI 9th EDN.
 Inspection : QC AND NTPC
 Radiography : SPOT

WO's	Vessel No's	Unit
P-1032329000-16235	2561	3

DETAILS OF WORK.

1. All materials for the equipment will be supplied as per part list.
2. Materials will be supplied with BHEL QC and NTPC attestation marks as indicated in part list.
3. Job shall be loaded on BHEL & NTPC approved vendors only.
4. Welding procedures and welders qualification shall be as per ASME sec. IX under BHEL & Customer only shall be employed on the job.
5. Transfer & material attestation marks on each of the finished part in presence of BHEL QC and customer as mentioned in QP
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- 24. Final inspection of visual and dimensional conformity as per drawings by QC and NTPC shall be strictly as per Quality Plan.
- 25. Total documentation, packing including raw material certificates shall be furnished to BHEL.
- 26. After final inspection, send the equipment to BHEL works.

@@@@

	Ctrl Key	ZP01	
	Base Qty		1 EA
Operation 0020	Work Ctr	DA9863	Inspection by QC.
	Ctrl Key	QFNL	
	Base Qty		1 EA

LPS
S/A

Material 31622600454-00SC

Plant P006

CHANNEL ASSEMBLY

Group 50430415

Grp.ct 1

LSize From

0

Use 1

LSize To 99,999,999 EA

Status 4 PlantP006

Sequence 0 Seq. Cat. Std.seq.
Operation 0010 Work Ctr DA9995

CHANNEL ASSEMBLY : LP-2 & LP-3 NTPC PATRATU

SCOPE OF SUB CONTRACT

Reference QP no: HYQA/SSMOP/HE/510/5096

Equipment : CHANNEL ASSEMBLY

Code : ASME SEC. VIII DIV-1 EDN 2017 ADDENDA NIL +

HEI 9th EDN.

Inspection , , : QC and NTPC.

Radiography : FULL

LP-2:

WO's Vessel No's

P-1032331000-16222, , , , 2582 Unit-3

LP-3:

WO's Vessel No's

P-1032328800-16226, , , , 2559 Unit-3

DETAILS OF WORK.

1. All materials for the equipment will be supplied as per part list.
2. Materials will be supplied with BHEL QC and NTPC attestation marks as indicated in part list.
3. Job shall be loaded on BHEL & NTPC approved vendors only.
4. Welding procedures and welders qualification shall be as per ASME sec. IX under BHEL & Customer only shall be employed on the job.
5. Transfer & material attestation marks on each of the finished part shall be in presence of agencies as mentioned in QP.
6. Individual parts are to be manufactured and machined as per their drawings. Assemble all parts as per the drawing as mentioned in the part list remarks, as required in assembly.
7. The equipment shall be manufactured completely as per the drawing and part list dimensions.
8. Strictly follow stage inspections by QC, NTPC as shown in the quality plan.
9. All notes/remarks on drawings and quality plan shall be strictly followed.
10. The holes on the flanges must be straddled w.r.t. vertical axes and equipment spaced.
11. Care should be taken to avoid distortion during cutting of openings on shell for nozzles and during welding of nozzles. Holes for couplings shall be drilled during shell assembly.
12. Maintain / follow the heights, Vertical axes, horizontal axes, "L" seam orientation and nozzle orientation as shown in drawings.
13. Root runs of all butt and groove welds shall be examined by PT, and shall be offered to BHEL QC for inspection.
14. All back chip welds shall be examined with PT, and shall be offered to BHEL QC for inspection.

- 15. All completed welds shall be examined by PT..
- 16. Inspection of PT, Fit ups, & RT by QC and NTPC shall be strictly as per Quality plan.
- 17. Mark for machining obround shape to size 359x461mm to a depth of 13mm on Man way forging pos.5 as shown in detail-S Get markings inspected. Machine Obround shape to size as shown in drawing. Fit Obround Man way forging to dished end as shown in detail - H/1 in WPS drawing.
- 18. Fit partition plate with man hole cover plate together as per partition cover details drg. 3-16226-00433 R00 and get tack weld. Mark for drilling, tapping holes 20 x M16 X2 as per drg. Get markings inspected. Drill, tap the holes 20 x M16 X 2 as marked. Separate the plates and enlarge to holes 20x dia.19mm on man hole cover plate pos.3 as shown. Again fit man hole cover plate to partition plate in correct position and clamp. Weld cover studs to partition plate as per drg. Fit partition plates to channel as per channel assembly drawing and weld completely. Also Weld handle to man hole cover plate. Fit packing and cover plate to partition plate and get tighten with nuts as shown.
- 19. Preheating shall be done during welding as shown in drawing.
- 20. pre bending allowance given for channel segments for rolling and also start & end plates shall be adjusted from pinching allowance provided, start and end plates shall be returned back to BHEL.
- 21. Keep channel segment having bevel 20 deg. without root as open end of the assembly for welding with Tube plate as shown in drawing. Refer detail "Q" given in the drawing.
- 22. During the fit up of dished end to channel a reference line would be marked on the shell, at a distance of 100mm from the joint which would then be transferred back, after welding, to identify weld line.
- 23. Insert and tack weld(at four locations) end ring at open end of channel assembly to avoid distortion and send shell assembly to BHEL along with this end ring in tack welded condition.
Note: Full welding of ovality to channel assembly should not be done.
- 24. Joints identification of L and C-seams shall be marked near seams as per drg.
- 25. Flush grind all the L & C seams completely from inside.
- 26. After completion of the equipment check the roundness and ovality of the assembly as per ASME code and as per drawings.
- 27. Final inspection of visual and dimensional conformity as per drawings by QC and NTPC & strictly as per quality plan.
- 28. Total documentation, packing including raw material certificates shall be furnished to BHEL.
- 29. After final inspection, send the equipment to BHEL works.

..... #####

Operation	0020	Ctrl Key	ZP01	
		Base Qty		1 EA
		Work Ctr	DA9863	Inspection by QC.
		Ctrl Key	QFNL	
		Base Qty		1 EA

LP-2 & LP-3 C/A

Material 31623100106-00SC
 Group CHANNEL ASSLY ID1570X36 THK
 50430398 Grp.ct 1
 LSize From 0
 Use 1

Plant P006

LSize To 99,999,999 EA
 Status 4 PlantP006

Sequence 0 Seq. Cat. Std.seq.
 Operation 0010 Work Ctr DA9995

CHANNEL ASSEMBLY : LP-4 & LP-5 NTPC PATRATU

SCOPE OF SUB CONTRACT

Reference QP no: HYQA/SSMQP/HE/510/5096
 Equipment : CHANNEL ASSEMBLY
 Code : ASME SEC. VIII DIV-1 EDN 2017 ADDENDA NIL +
 HEI 9th EDN.
 Inspection , , : QC and NTPC.
 Radiography : FULL

LP-4:
 WO's Vessel No's
 P-1032328900-16231,,,, 2560 Unit-3

LP-5:
 WO's Vessel No's
 P-1032329000-16235,,,, 2561 Unit-3

DETAILS OF WORK.

1. All materials for the equipment will be supplied as per part list.
2. Materials will be supplied with BHEL QC and NTPC attestation marks as indicated in part list.
3. Job shall be loaded on BHEL & NTPC approved vendors only.
4. Welding procedures and welders qualification shall be as per ASME sec. IX under BHEL & Customer only shall be employed on the job.
5. Transfer & material attestation marks on each of the finished part shall be in presence of agencies as mentioned in QP.
6. Individual parts are to be manufactured and machined as per their drawings. Assemble all parts as per the drawing as mentioned in the part list remarks, as required in assembly.
7. The equipment shall be manufactured completely as per the drawing and part list dimensions.
8. Strictly follow stage inspections by QC, NTPC as shown in the quality plan.
9. All notes/remarks on drawings and quality plan shall be strictly followed.
10. The holes on the flanges must be straddled w.r.t. vertical axes and equipment spaced.
11. Care should be taken to avoid distortion during cutting of openings on shell for nozzles and during welding of nozzles. Holes for couplings shall be drilled during shell assembly.
12. Maintain / follow the heights, Vertical axes, horizontal axes, "L" seam orientation and nozzle orientation as shown in drawings.
13. Root runs of all butt and groove welds shall be examined by PT, and shall be offered to BHEL QC for inspection.
14. All back chip welds shall be examined with PT, and shall be offered to BHEL QC for inspection.

15. All completed welds shall be examined by PT.
16. Inspection of PT, Fit ups, & RT by QC and NTPC shall be strictly as per Quality plan.
17. Mark for machining obround shape to size 359x461mm to a depth of 13mm on Man way forging pos.5 as shown in detail-S Get markings inspected. Machine Obround shape to size as shown in drawing. Fit Obround Man way forging to dished end as shown in detail - H/1 in WPS drawing.
18. Fit partition plate with man hole cover plate together as per as per partition cover details drg. 3-16231-00107 R00 and get tack weld. Mark for drilling, tapping holes 20 x M16 X2 as per drg. Get markings inspected. Drill, tap the holes 20 x M16 X 2 as marked. Separate the plates and enlarge to holes 20x dia.19mm on man hole cover plate pos.3 as shown. Again fit man hole cover plate to partition plate in correct position and clamp. Weld cover studs to partition plate as per drg. Fit partition plates to channel as per channel assembly drawing and weld completely. Also Weld handle to man hole cover plate. Fit packing and cover plate to partition plate and get tighten with nuts as shown.
19. Preheating shall be done during welding as shown in drawing.
20. pre bending allowance given for channel segments for rolling and also start & end plates shall be adjusted from pinching allowance provided(>,<) start and end plates shall be returned back to BHEL.
21. Keep channel segment having bevel 20 deg. without root as open end of the assembly for welding with Tube plate as shown in drawing. Refer detail "Q" given in the drawing.
22. During the fit up of dished end to channel a reference line would be marked on the shell, at a distance of 100mm from the joint which would then be transferred back, after welding, to identify weld line.
23. Insert and tack weld(at four locations) end ring at open end of channel assembly to avoid distortion and send shell assembly to BHEL along with this end ring in tack welded condition.
Note: Full welding of ovality to channel assembly should not be done.
24. Joints identification of L and C-seams shall be marked near seams as per drg.
25. Flush grind all the L & C seams completely from inside.
26. After completion of the equipment check the roundness and ovality of the assembly as per ASME code and as per drawings.
27. Final inspection of visual and dimensional conformity as per drawings by QC and NTPC & strictly as per quality plan.
28. Total documentation, packing including raw material certificates shall be furnished to BHEL.
29. After final inspection, send the equipment to BHEL works.

//////////#####

	Ctrl Key	ZP01
	Base Qty	
Operation 0020	Work Ctr	DA9863
	Ctrl Key	QFNL
	Base Qty	

1 EA
Inspection by QC.
1 EA

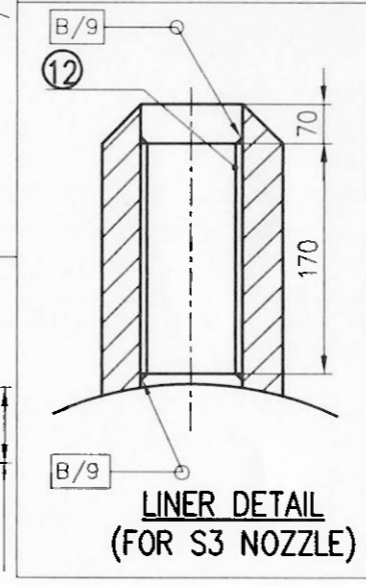
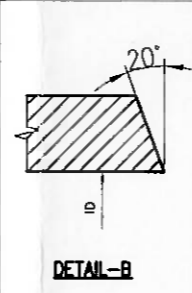
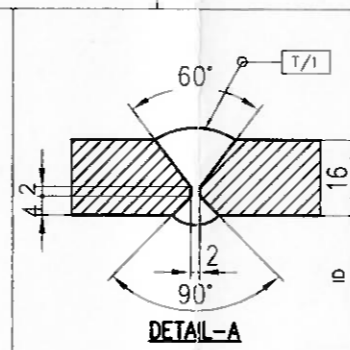
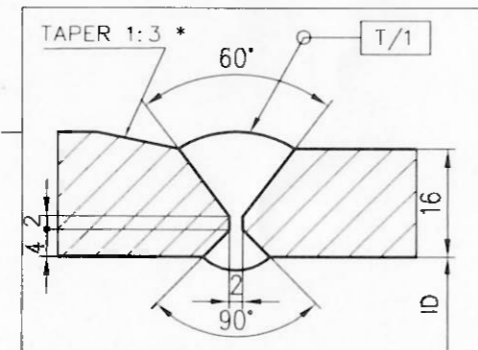
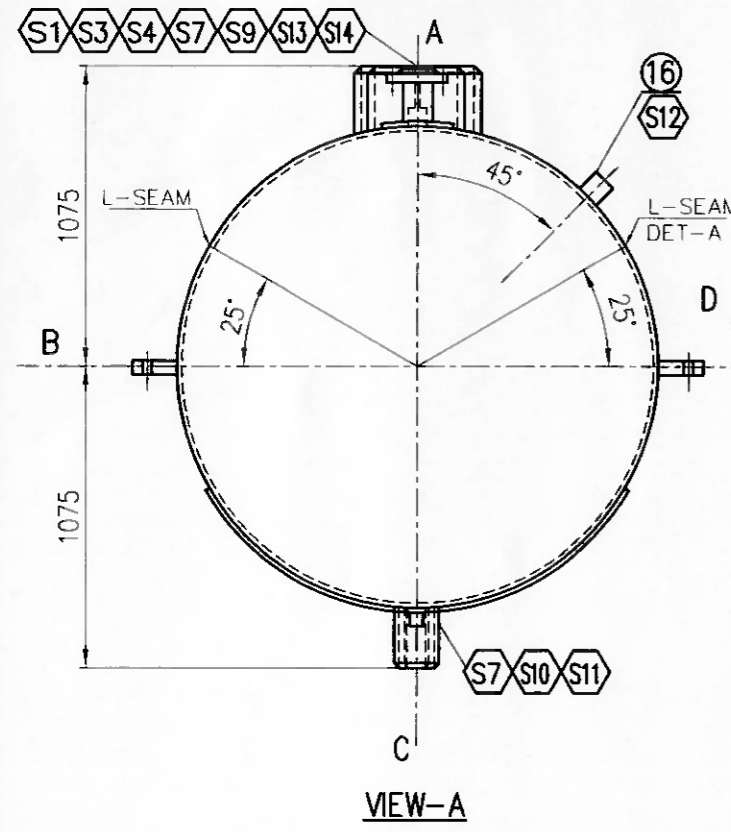
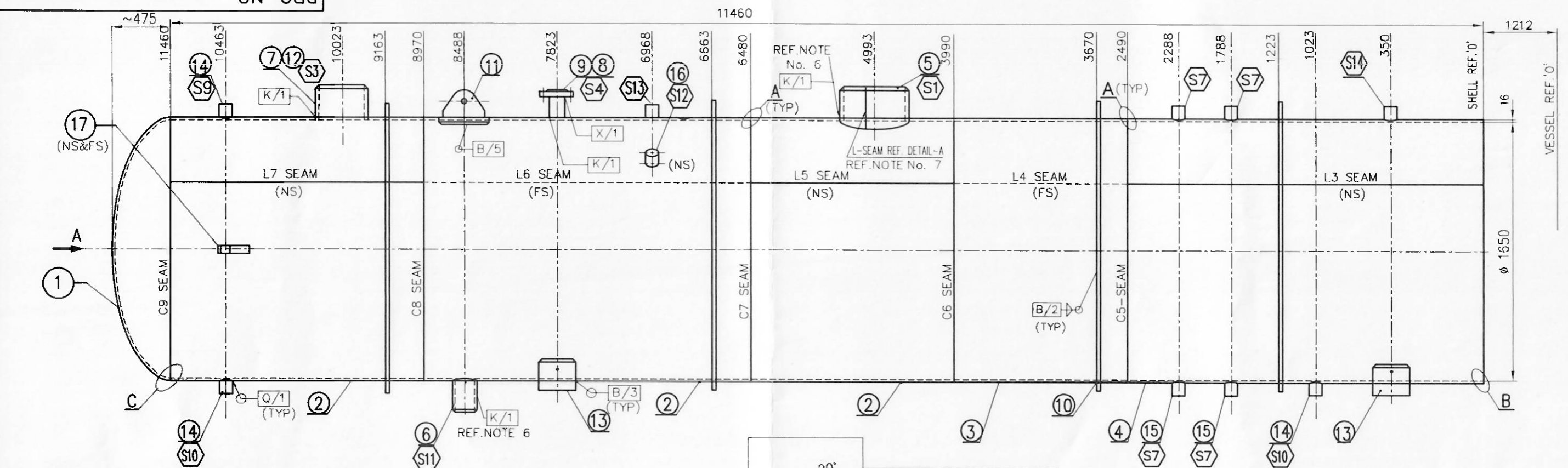
LP-4 & LP-5
C/A

INVENTORY NO. SIGN. AND DATE REF. DRG. NO. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-162-26-00459



NOTES:-

1. SHELL :- SPOT RADIOGRAPHY.
2. FOR WELDING SYMBOLS AND PROCEDURES SEE DRG. NO
i) 3-162-01-00107.
ii) 3-175-01-00544 (FOR DET-C & DET-A).
3. FOR UNSPECIFIED TOLERANCES REF. PROD. STD. HE71036
4. DEVELOPED LENGTH OF SHELL SEGMENT = 5234
5. TOLERANCES :- a) OUT-OF-ROUNDNESS ON ID (1650 ± 4.0)
b) ON ID CIRCUMFERENCE $\begin{matrix} +0.25\% \\ -0.00\% \end{matrix}$ (5234 $\begin{matrix} +13.1 \\ -0.00 \end{matrix}$)
6. ROUND OFF SHARP CORNERS.
7. a) THE WELDS ARE TO BE GROUND TO CONCAVE CONTOUR.
b) INSIDE CORNERS ARE TO BE ROUNDED TO A GENEROUS RADIUS.
c) THE WELDS ARE TO BE PT EXAMINED.
d) L-SEAM WELD OF S1 NOZZLE SHALL BE 100% RADIOGRAPHED.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT
BHARAT HEAVY ELECTRICALS LTD. HYDERABAD



DRN.	NAME	SIGN.	DATE	NO. OF VAR.
CHD.	RAJESH M	M RAJESH	23.11.19	NA
APPD.	A.K. SAHOO	A.K.S.	23.11.19	NA
	K.KISHORE KUMAR	K.K.K.	23.11.19	

REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD

DEPT. HEE	GRADE OF TOL.DIM. C/M/F	SCALE NTS	WEIGHT (KG)	REF. TO ASSY DRG. NA	ITEM NO. NA	NO. OF ITEMS NA
CODE 405						
TITLE SHELL ASSEMBLY.			CARD CODE	DRAWING NO. 3-162-26-00459		REV. 00

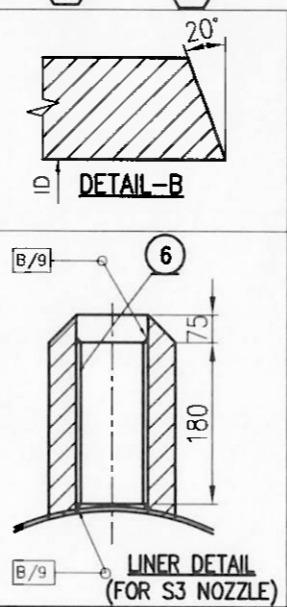
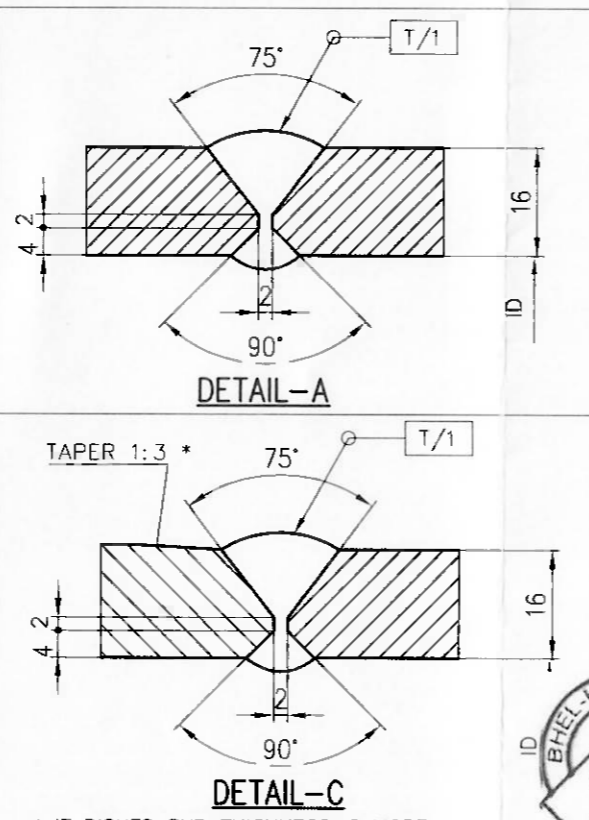
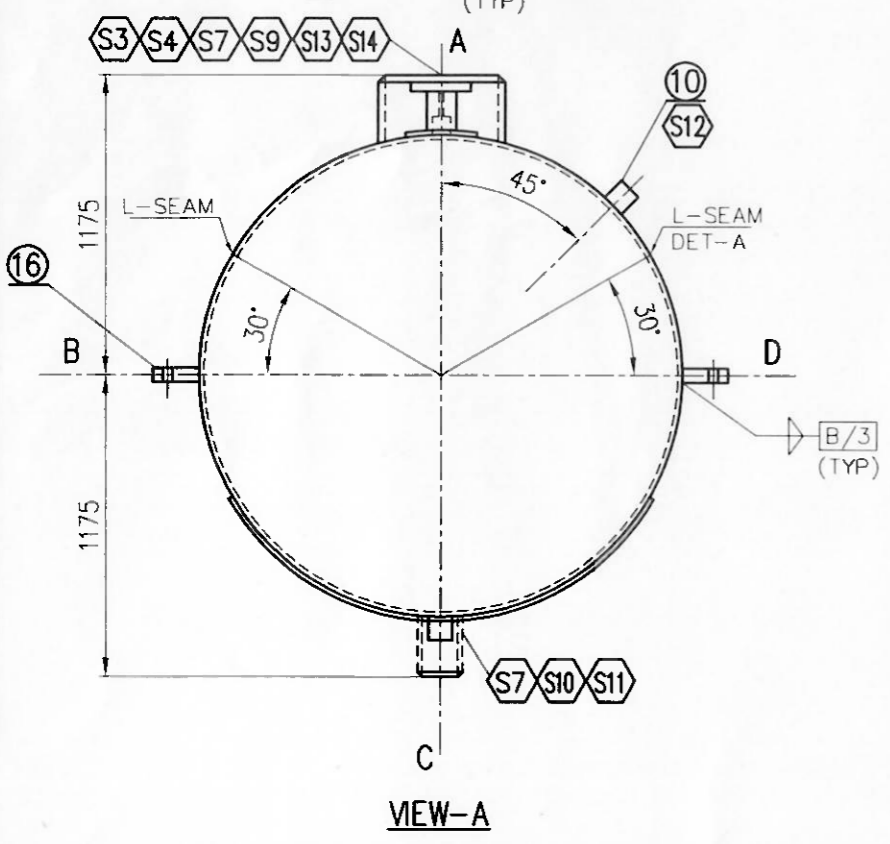
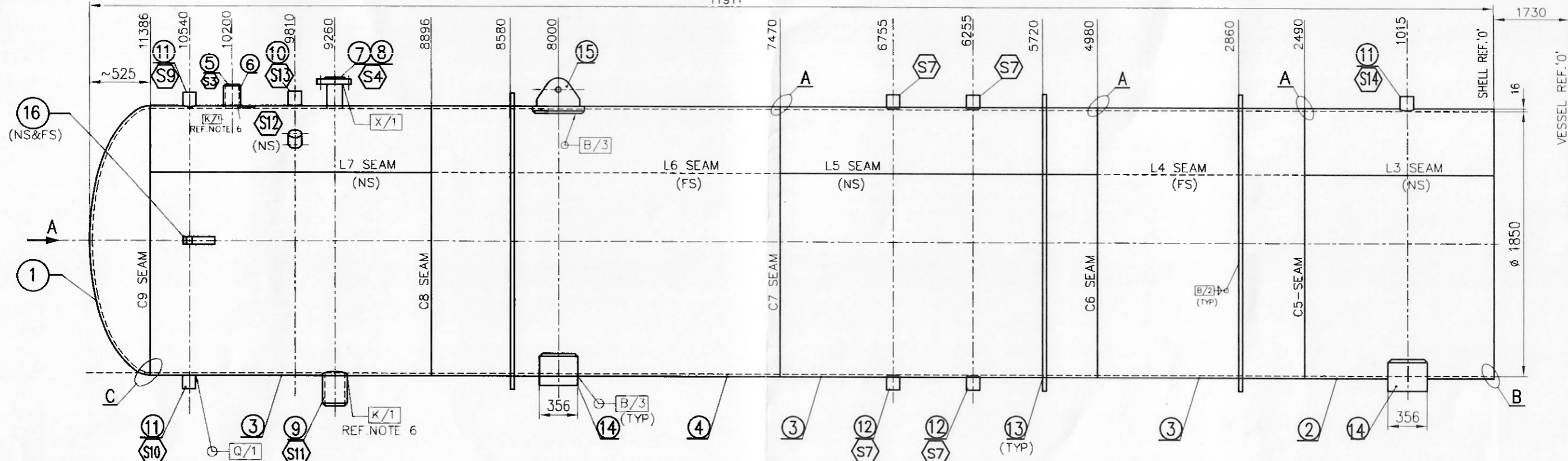
INVENTORY NO. SIGN. AND DATE REF. DRG. NO. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-162-31-00104

11911



NOTES:-

1. SHELL :- SPOT RADIOGRAPHY.
2. FOR WELDING SYMBOLS AND PROCEDURES SEE DRG. No.3-162-01-00107.
3. FOR UNSPECIFIED TOLERANCES REF. PROD. STD. HE71036
4. DEVELOPED LENGTH OF SHELL SEGMENT = 5862
5. TOLERANCES :- a) OVALITY 0.5% ON ID.(1850 ±9.25)
b) ON CIRCUMFERENCE + 0.25% (+14.52)
- 0.00% (-0.00)
6. ROUND OFF SHARP CORNERS.
7. a) THE WELDS ARE TO BE GROUND TO CONCAVE CONTOUR.
b) INSIDE CORNERS ARE TO BE ROUNDED TO A GENEROUS RADIUS.
c) THE WELDS ARE TO BE PT EXAMINED.

TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD

DRN.	NAME	SIGN.	DATE	NO.OF VAR.
CHD.	RAJESH M	M RAJESH	21.12.19	NA
APPD.	A.K.SAHOO	A.K.S	21.12.19	NA
	K. KISHORE KUMAR	K.K.K	21.12.19	

REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD
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Mar Wed 11 09 05 2020														

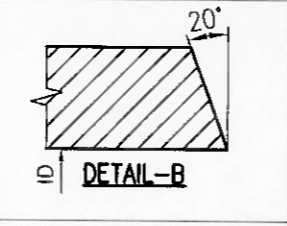
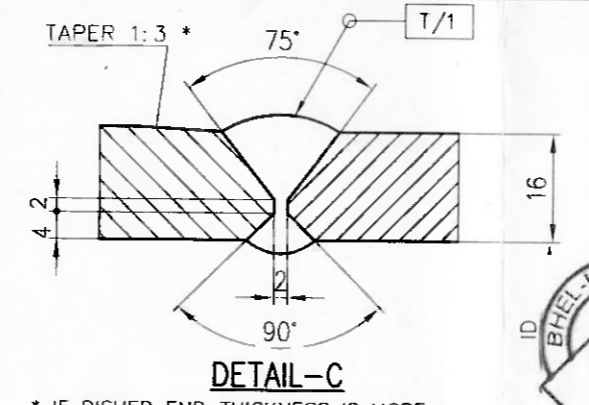
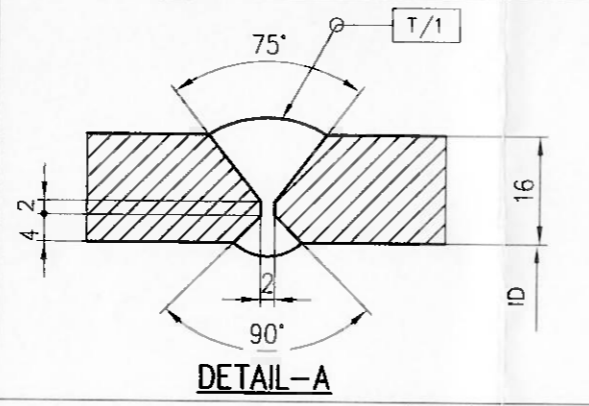
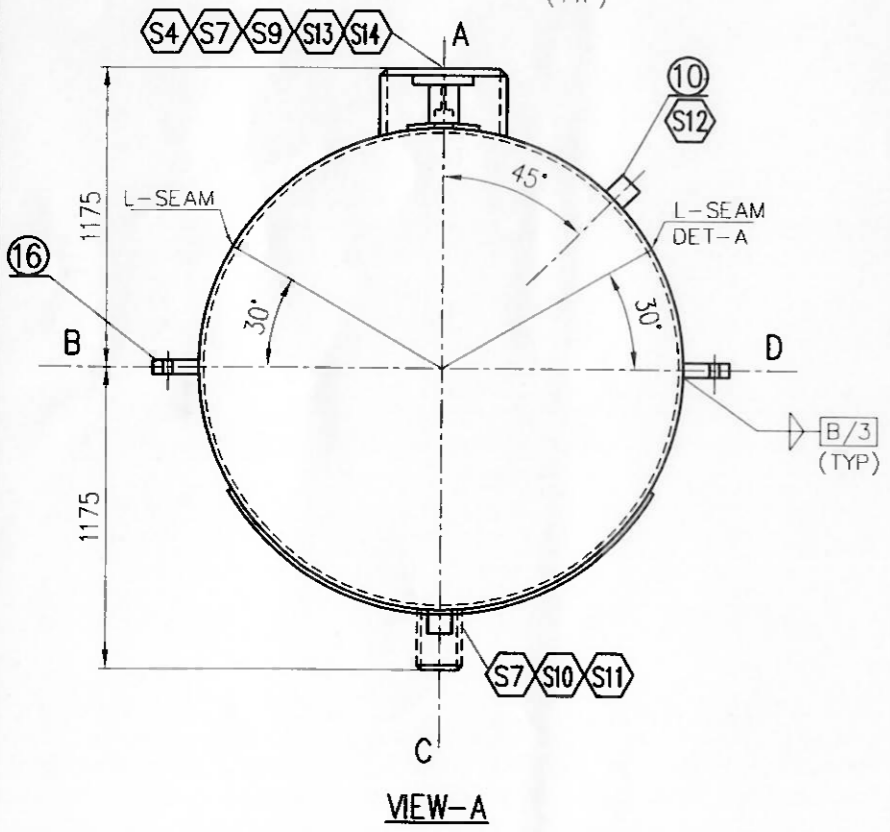
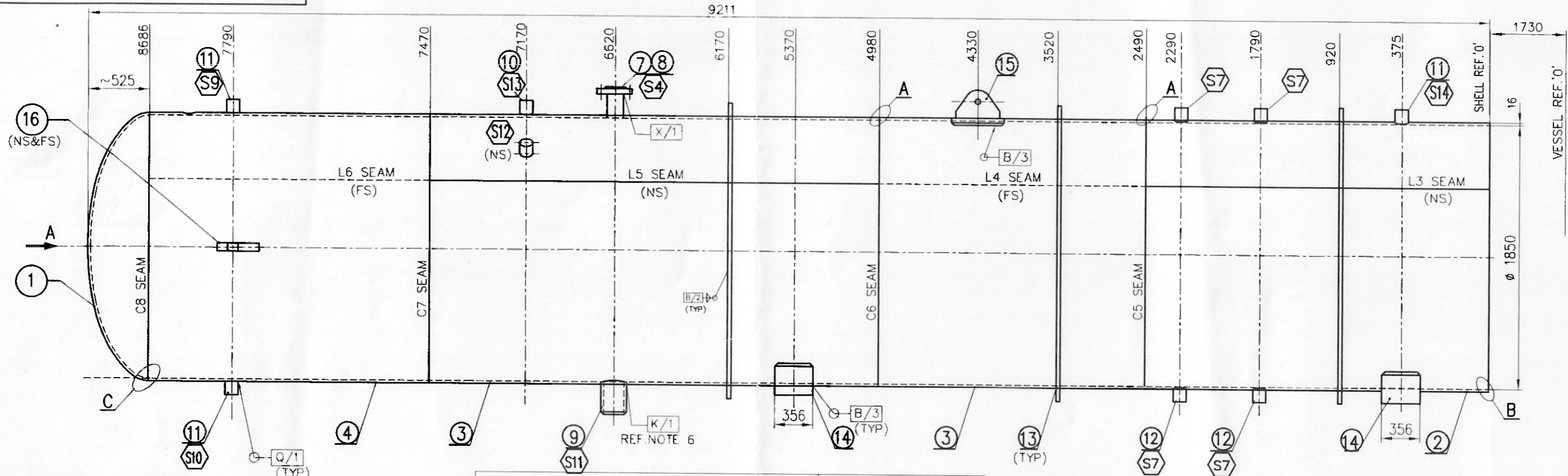
DEPT. HEE	GRADE OF TOL.DIM. C/M/F	SCALE NTS	WEIGHT (KG)	REF. TO ASSY DRG. NA	ITEM NO. NA	NO.OF ITEMS NA
CODE 405						
TITLE SHELL ASSEMBLY.			CARD CODE	DRAWING NO. 3-162-31-00104		REV. 00

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-162-31-00114

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.



NOTES:-

- SHELL :- SPOT RADIOGRAPHY.
- FOR WELDING SYMBOLS AND PROCEDURES SEE DRG. No.3-162-01-00107.
- FOR UNSPECIFIED TOLERANCES REF. PROD. STD. HE71036
- DEVELOPED LENGTH OF SHELL SEGMENT = 5862
- TOLERANCES :- a) OVALITY 0.5% ON ID.(1850 ±9.25)
b) ON CIRCUMFERENCE + 0.25% (+14.52)
- 0.00% (-0.00)
- ROUND OFF SHARP CORNERS.
- a) THE WELDS ARE TO BE GROUND TO CONCAVE CONTOUR.
b) INSIDE CORNERS ARE TO BE ROUNDED TO A GENEROUS RADIUS.
c) THE WELDS ARE TO BE PT EXAMINED.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

DRN.	NAME	SIGN.	DATE	NO.OF VAR.
CHD.	RAJESH M	M RAJESH	21.12.19	NA
APPD.	A.K.SAHOO	A.K.S	21.12.19	NA
	K. KISHORE KUMAR	K.K.K	21.12.19	

REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD

Mar Wed 11 09 46 2020

DEPT. HEE	GRADE OF TOL.DIM. C/M/F	SCALE NTS	WEIGHT (KG)	REF. TO ASSY DRG. NA	ITEM NO. NA	NO.OF ITEMS NA
CODE 405						
TITLE SHELL ASSEMBLY.			CARD CODE	DRAWING NO. 3-162-31-00114	REV. 00	

* IF DISHED END THICKNESS IS MORE, MATCH SHELL ID AND THICKNESS AND MACHINE EXCESS THICK TO 1:3 TAPER

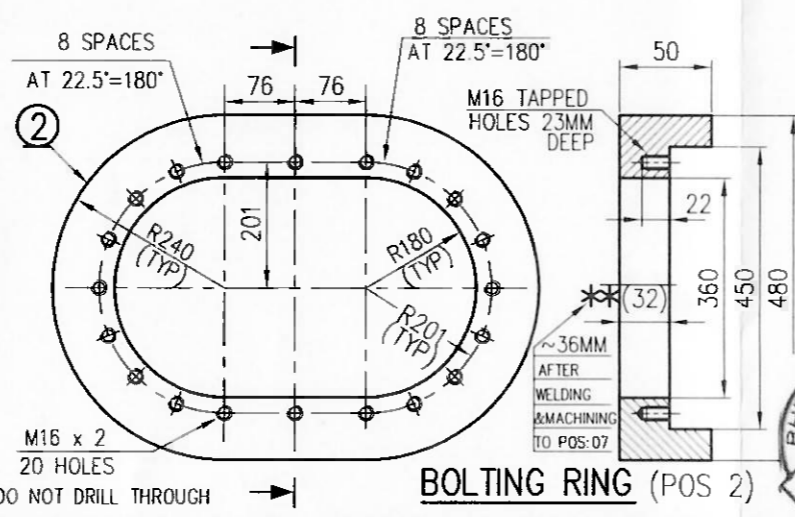
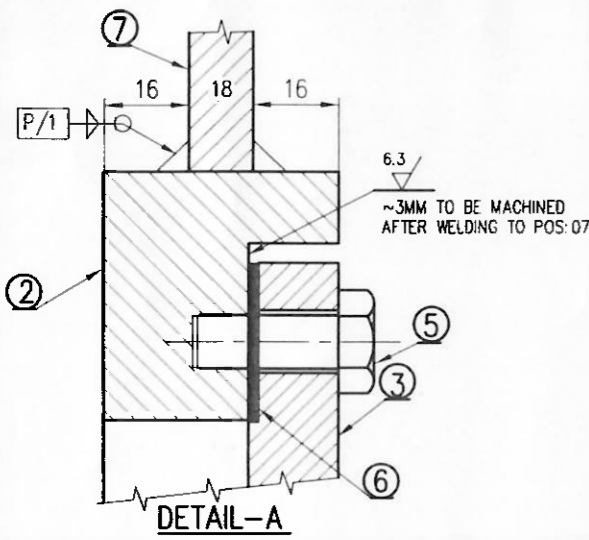
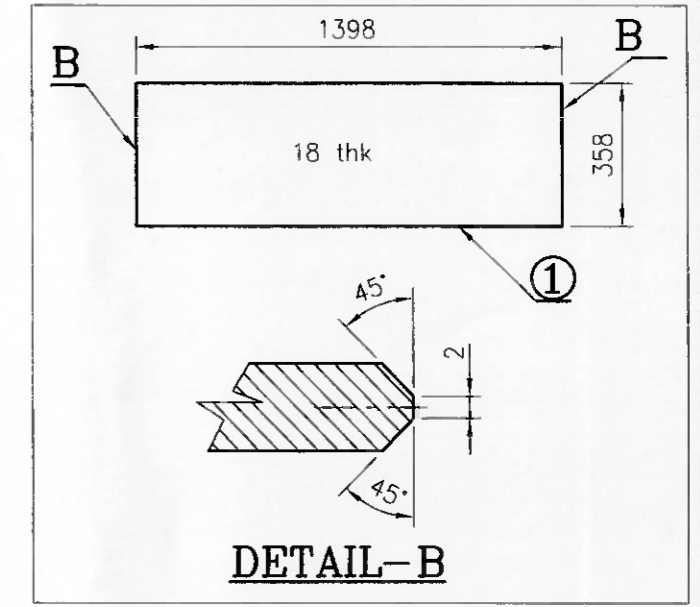
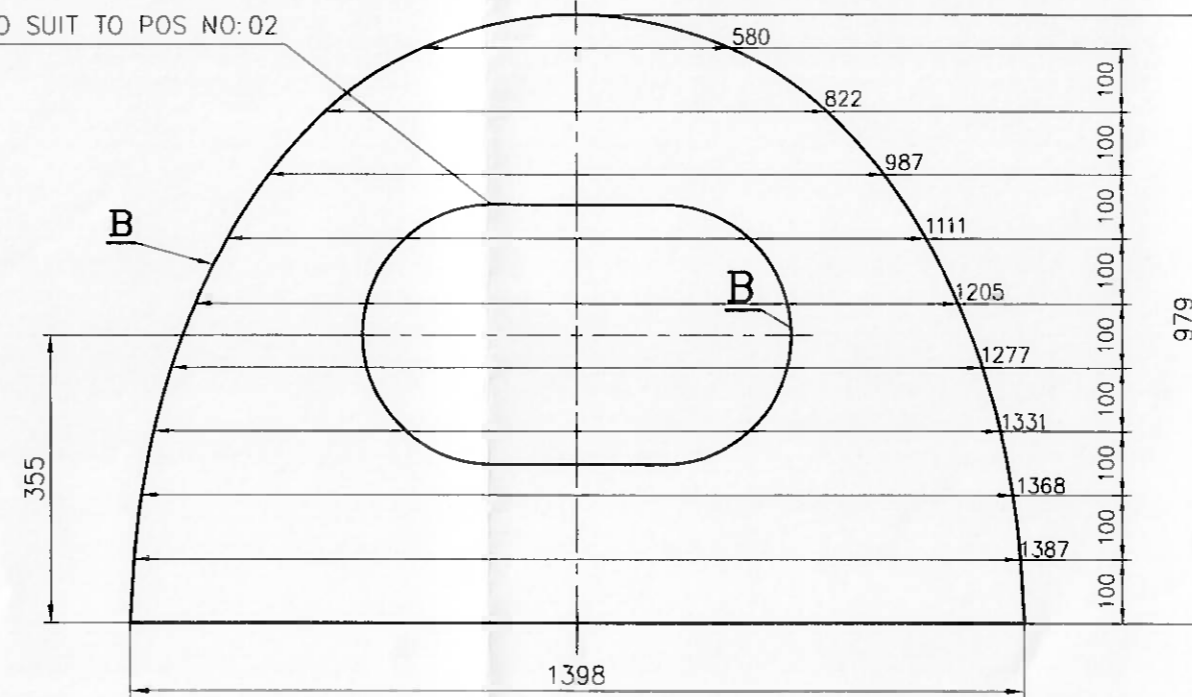
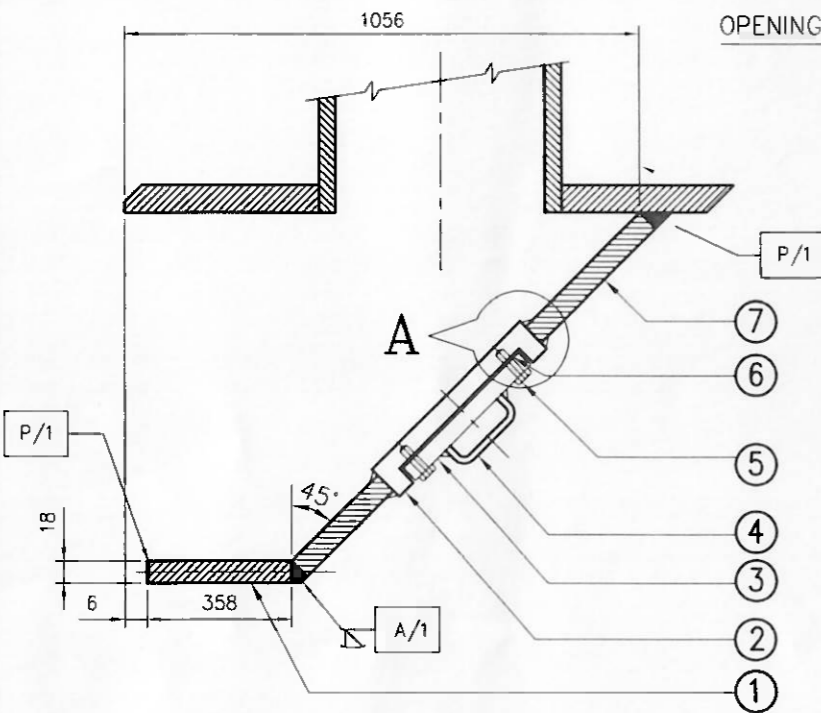
LP-5

INVENTORY NO. SIGN. AND DATE COMPUTER F. NAME THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

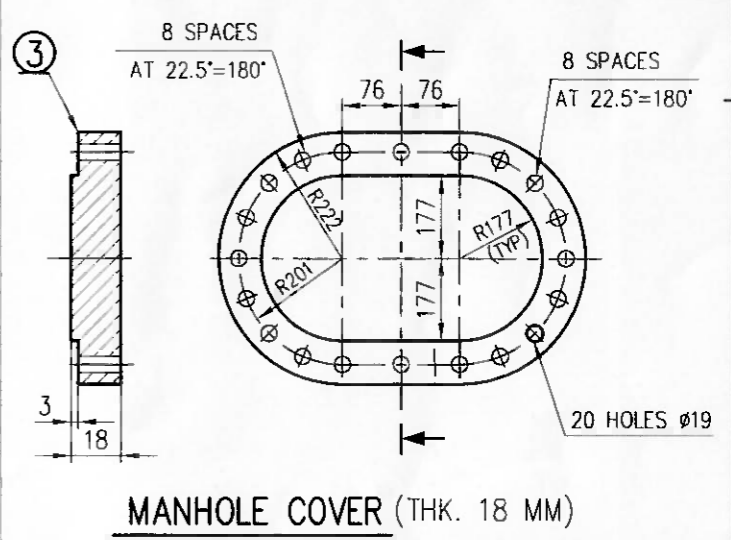
DRG. NO. 3-162-26-00433

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)



NOTE:
FOR WELD SYMBOLS AND PROCEDURES
REF. DRG. No: 31620100107



TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD

DRN.	NAME	SIGN.	DATE	NO. OF
CHD.	RAJESH M	M. RAJESH	22.04.17	VAR.
APPD.	A.K. SAHOO	A.K.S.	22.04.17	N.A
	K.KISHORE KUMAR	K.K.K.	22.04.17	

REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD

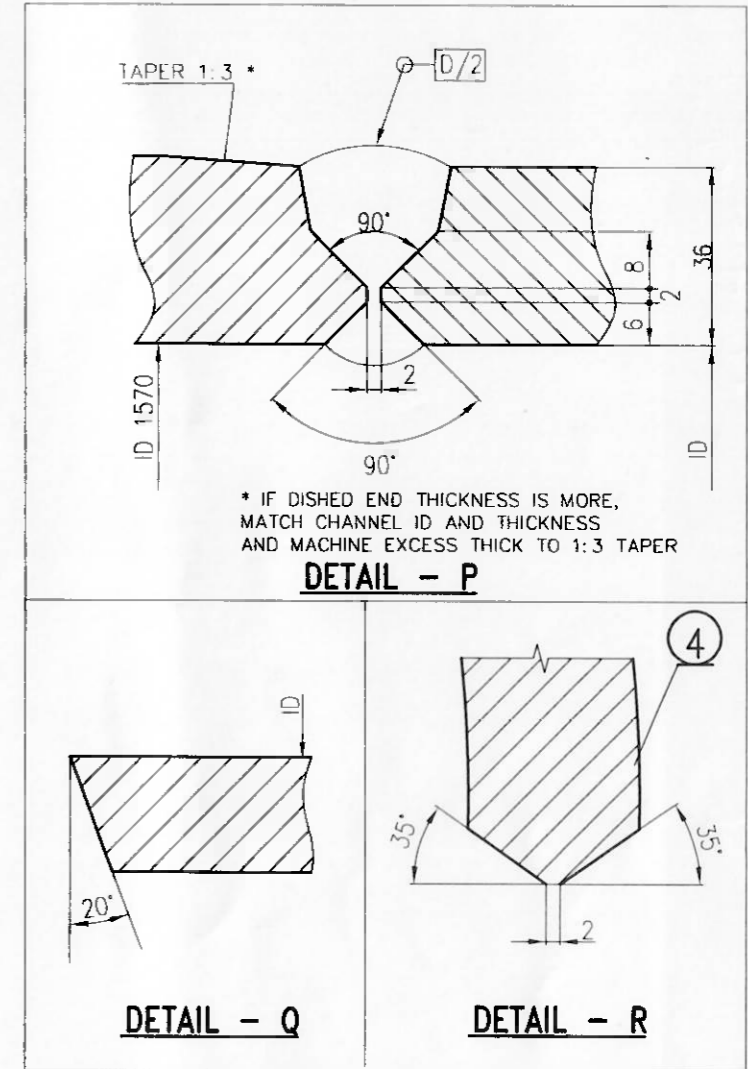
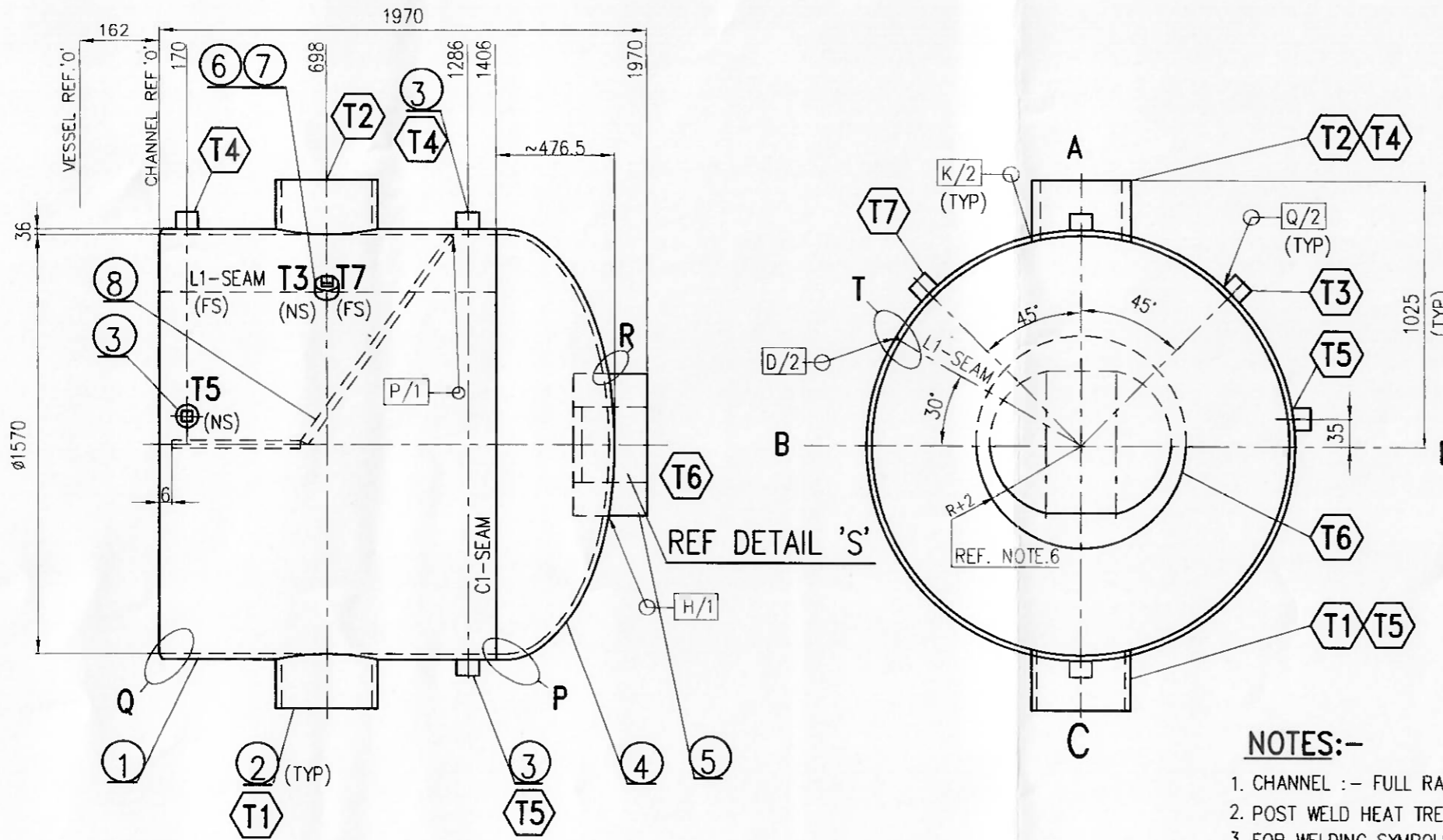
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CODE 405	Q/M/F	NTS	-	N.A	N.A	N.A
TITLE				CARD CODE	DRAWING NO.	REV.
PARTITION COVER DETAILS					3-162-26-00433	00
(FOR L.P.HEATERS)					SHEET NO. 01	NO OF SHEETS 01

INVENTORY NO. SIGN. AND DATE REF. DRG. NO. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

DRG. NO. 3-162-31-00106

FIRST ANGLE PROJECTION

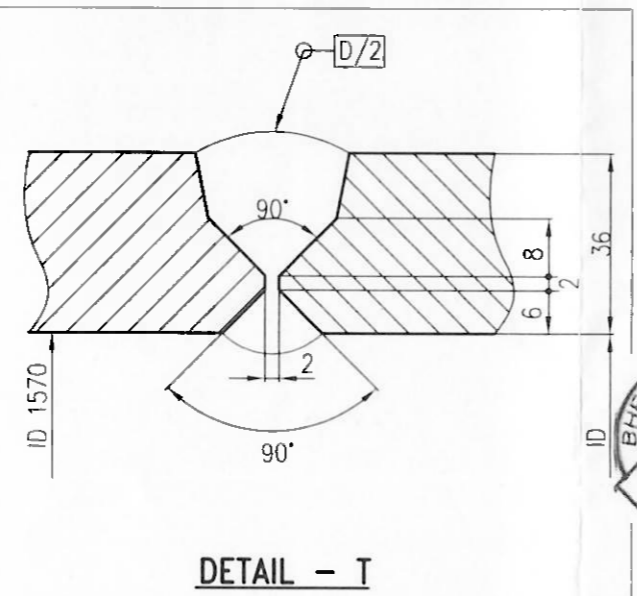
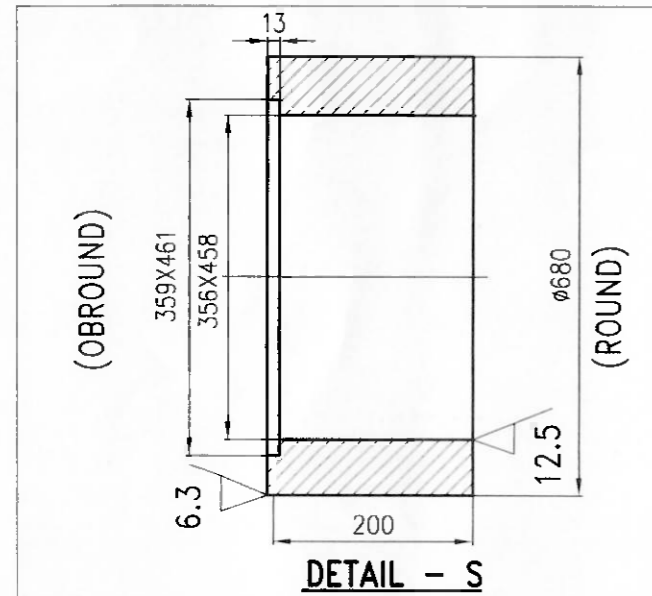
(ALL DIMENSIONS ARE IN mm)



NOTES:-

1. CHANNEL :- FULL RADIOGRAPHY.
2. POST WELD HEAT TREATMENT: NOT APPLICABLE
3. FOR WELDING SYMBOLS & PROCEDURES SEE DRG. NO.3-162-01-00107.
4. FOR UNSPECIFIED TOLERANCES REF. PROD STD HE71036.
5. DEVELOPED LENGTH OF POS No. 1 = 5045.
6. WHERE 'R' IS RADIUS OF OBOURND MANWAY REF.DRG.No.3-162-26-00398.
7. TOLERANCES:
 - a) OVALITY 0.5% ON ID.(1570 ±7.9)
 - b) ON ID CIRCUMFERENCE + 0.25% (+12.33)
- 0.00% (-0.00)

LP4 & LP5

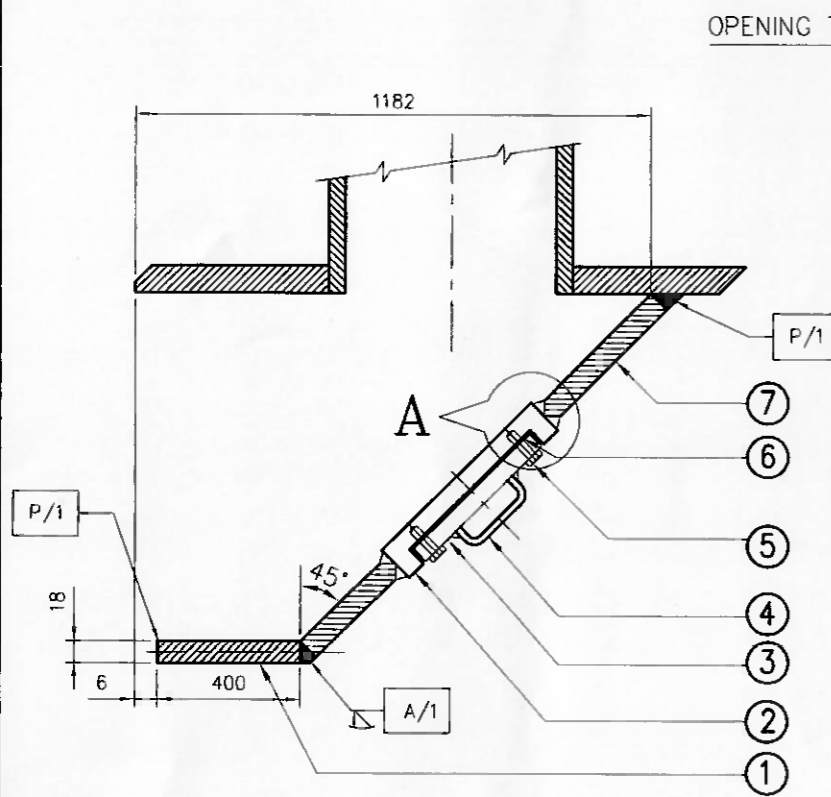


TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		DRN.	NAME	SIGN.	DATE	NO.OF VAR.
		CHD.	A.K.SAHOO	A.K.S	21.12.19	NA		
		APPD.	K. KISHORE KUMAR	K.K.K	21.12.19	NA		
		DEPT. HEE	GRADE OF TOL.DIM. C/M/F	SCALE	WEIGHT (KG)	REF. TO ASSY DRG.	ITEM NO.	NO.OF ITEMS
CODE 405		NTS		NA	NA	NA		
TITLE		CHANNEL ASSEMBLY		DRAWING NO.		REV.		
				3-162-31-00106		00		
				SHEET No. 1		NO OF SHEETS 1		

FIRST ANGLE PROJECTION

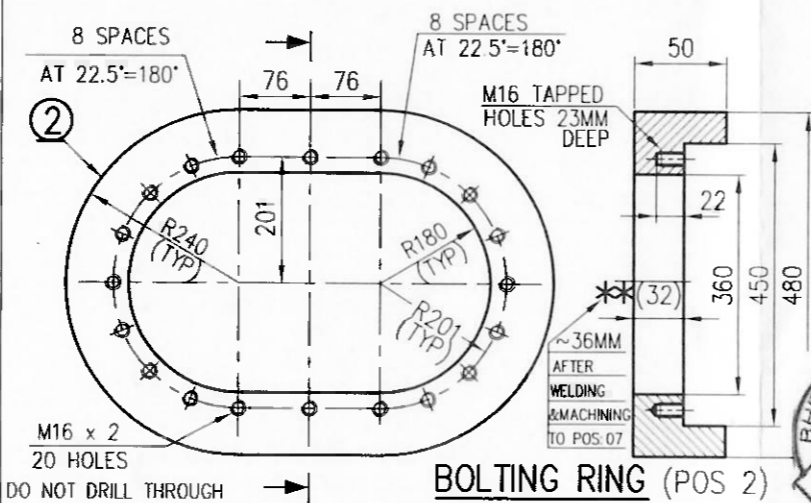
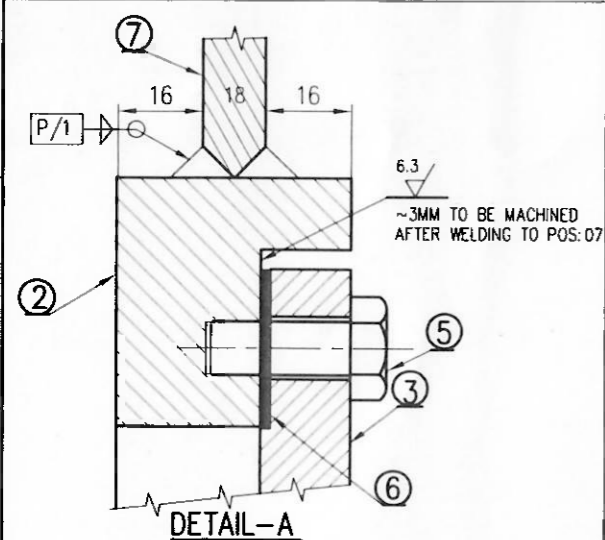
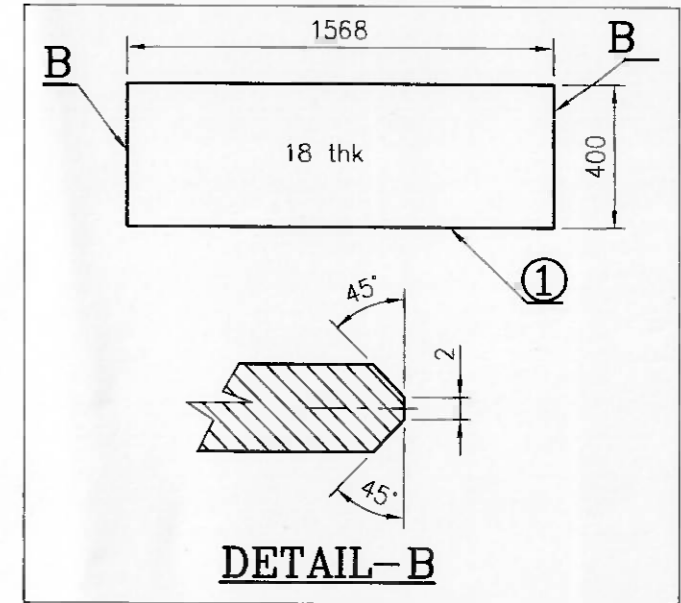
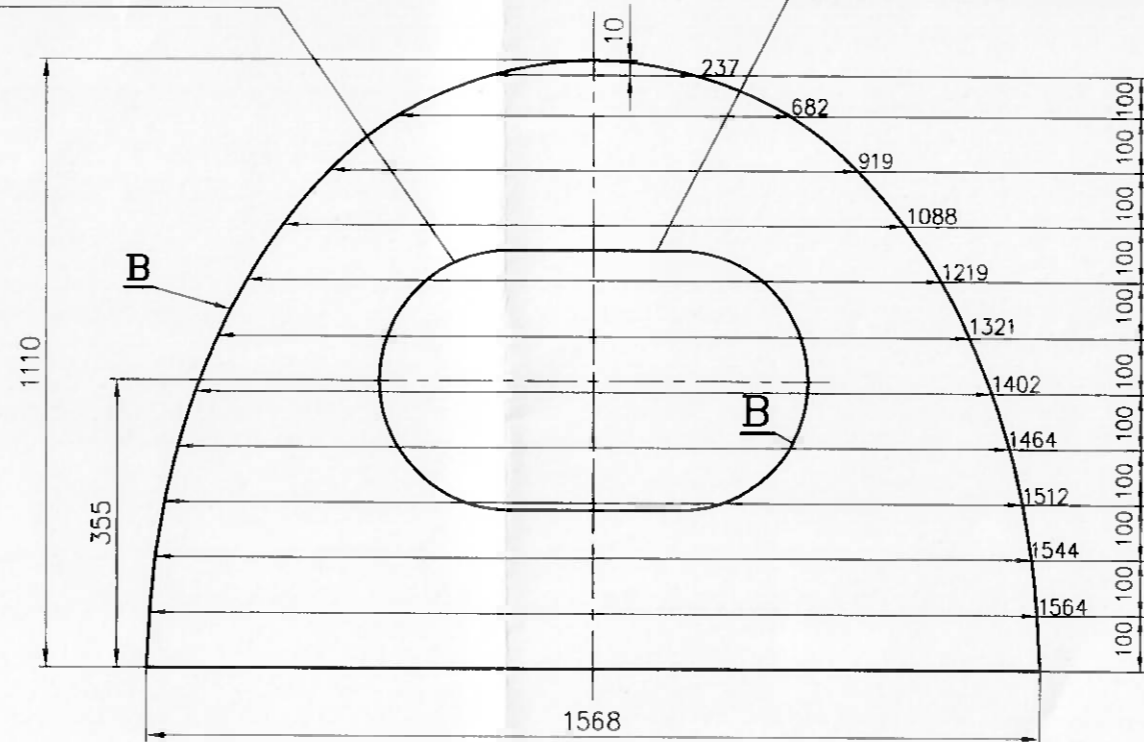
(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-162-31-00107



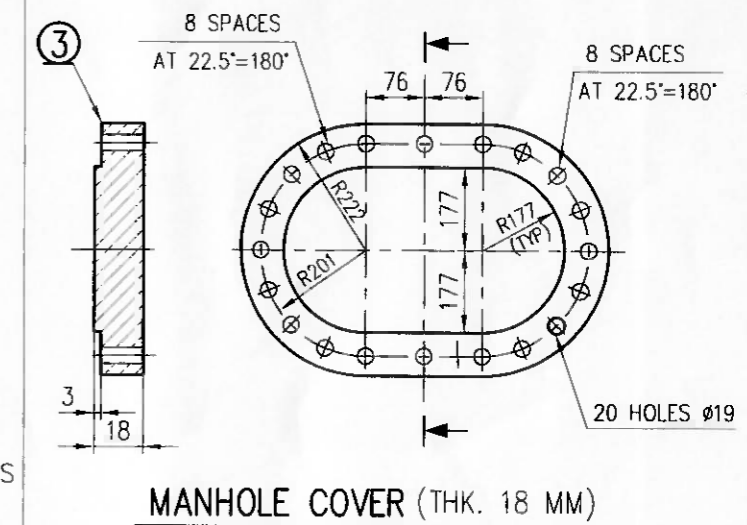
OPENING TO SUIT TO POS NO:02

OPENING TO SUIT TO POS NO:02



NOTE:

FOR WELD SYMBOLS AND PROCEDURES
REF. DRG. No:31620100107



TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD



DRN.	NAME	SIGN.	DATE	NO.OF
CHD.	RAJESH M	M. RAJESH	21.12.19	VAR.
APPD.	A.K.SAHOO	A.K.S	21.12.19	N.A
	K. KISHORE KUMAR	K.K.K	21.12.19	


REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD

DEPT. HED CODE 405
GRADE OF TOL.DIM. C/M/F
SCALE NTS
WEIGHT (KG) -
REF. TO ASSY DRG. N.A
ITEM NO. N.A
NO.OF ITEMS N.A
TITLE
PARTITION COVER DETAILS
(FOR L.P.HEATERS)

CARD CODE
DRAWING NO.
3-162-31-00107
REV. **00**
SHEET NO. 01 NO OF SHEETS 01




INVENTORY NO. SIGN. AND DATE COMPUTER F.NAME THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY


OWNER		Patratu Vidyut Utpadan Nigam Limited (PVUN Limited)	
			
MAIN SUPPLIER		BHARAT HEAVY ELECTRICALS LTD HPEP , RC PURAM HYDERABAD	
			
PROJECT 3 X 800 MW PATRATU STP EXPANSION PHASE –I			
TITLE MQP - LP HEATER CAT –I 9585-001-110-QVM-Q-872 ,REV -02			
INDEX SHEET FOR QUALITY PLAN			
SL	DESCRIPTION	DOC NO	PAGES
1	MQP OF LP HEATER	9585-001-110-QVM-Q-872	01-08
2	QP FOR SS WELDED U TUBE	9585-001-110-QVM-Q-872A	09-13
3	QP FOR DISHED END	9585-001-110-QVM-Q-872B	Digitally signed by R K JHA Date: 2019.07.01 10:20:12 IST Reason: CAT I Location: NTPCEOC
4	QP FOR MAN WAY FORGING	9585-001-110-QVM-Q-872C	
CONTRACT NO: CS- 9585-001			

	MANUFACTURER'S NAME & ADDRESS:	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003 BHEL WO NO: WO:1-0-323-282-00 TO 1-0-32-290-00				
	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD	ITEM: LP HEATER (800 MW) SUB SYSTEM: TG & AUX PKG	QP No HYQA/SSMQP/HE/510/5096 Rev. No.:02 DATE: 09.04.2019							




SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

1.0	MATERIAL														
1.1	TUBESHEET														
1.1.1	AT SUPPLIER'S WORKS	A. CHEMICAL COMPOSITION	MAJOR	CHEM.	AS PER SPEC	AS PER DRAWING	AS PER DRAWING	SUPPLIERS TC	✓	P	V				
		B. MECH. PROPERTIES & HT CONDITION	MAJOR	MECH.	AS PER SPEC	AS PER DRAWING	AS PER DRAWING	SUPPLIERS TC	✓	P	V				
		C. UT AS PER DRG.	MAJOR	NDE	100%	SA 435 & DRG.	SA 435 & DRG.	SUPPLIERS TC	✓	P	V				
1.1.2	AT BHEL	VERIFICATION & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL & MEASRT.	100%	AS PER DRAWING	AS PER DRAWING	INSP. RECORD	✓		V	V		R-01	
1.2	TUBES														
1.2.1	AT BHEL	A. VERIFICATION OF TCS AS PER QP 9585-001-110-QVM-Q-872 A	MAJOR	VISUAL	100%	SA 688 & QP	SA 688 & QP	INSP. RECORD	✓		V	V		R-01,R-02	
1.3	SHELL, SKIRT, WATERBOX & PAD PLATES														
1.3.1	AT SUPPLIER'S WORKS	A. CHEMICAL COMPOSITION	MAJOR	CHEM.	AS PER SPEC	SA516 GR.70	SA 516 GR.70	SUPPLIERS TC	✓	P	V				
		B. MECH. PROPERTIES AND HT CONDITION	MAJOR	MECH.	AS PER SPEC	SA516 GR.70	SA 516 GR.70	SUPPLIERS TC	✓	P	V				
		C. UT OF THE PLATE AS PER DRG.	CRITICAL	NDE	100%	SA 435	SA 435	SUPPLIERS TC	✓	P	V				
1.3.2	AT BHEL	VERIFICATION & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL	100%	SA516 GR.70	SA 516 GR.70	INSP. RECORD	✓		V	V			
1.4	DISHED ENDS														
1.4.1	AT BHEL	A. VERIFICATION OF TCS AS PER QP 9585-001-110-QVM-Q-872 B	MAJOR	VISUAL & MEASRT.	100%	DRG SPEC AND QP	DRG SPEC & QP	INSP. RECORD	✓		V	V		R-01,R-02	
1.5	MANWAY FORGING														
1.5.1	AT BHEL	A. VERIFICATION OF TCS AS PER QP 9585-001-110-QVM-Q-872 C	MAJOR	VISUAL & MEASRT.	100%	DRG SPECN. AND QP	DRG. SPECN. & QP	INSP. RECORD	✓		V	V		R-01,R-02	




		LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER. N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO.: 9585-001-110-QVM-Q-872 REV 02 CAT I		
				FOR NTPC USE	REVIEWED BY	APPROVED BY
SIGNATURE						


	MANUFACTURER'S NAME & ADDRESS:		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003 BHEL WO NO: WO:1-0-323-282-00 TO 1-0-32-290-00							
	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD		ITEM: LP HEATER (800 MW) SUB SYSTEM: TG & AUX PKG		QP No HYQA/SSMQP/HE/510/5096 Rev. No.:02 DATE: 09.04.2019									
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

1.6	MANHOLE COVER													
1.6.1	AT BHEL	VERIFICATION & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL	100%	DRG. & SA 516 GR.70	DRG. & SA516 GR.70	INSP. RECORD			V			
1.7	SHELL & CHANNEL (FEED) NOZZLES													
1.7.1	AT BHEL	VERIFICATION & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL & MEASRT.	100%	DRG. & SA106 GR.B	DRG. & SA106 GR.B	INSP. RECORD	✓		V	V		
1.8	BAFFLE PLATE													
1.8.1	AT BHEL	VERIFICATION & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL & MEASRT.	100%	DRG./IS2062/SA 516 GR.70	DRG./IS2062/SA 516 GR.70	--	✓		V	V		R-01
1.9	INNER SHROUDS OF DC ZONE(F APPLICABLE)													
1.9.1	AT BHEL	VERIFICATION OF TCS & CORRELATION OF MATERIAL WITH TCS	MAJOR	VISUAL & MEASRT.	100%	DRAWING SA516GR.70/60	DRAWING SA516GR.70/60	INSP. RECORD	✓		V	V		
2.0	INPROCESS INSPECTION													
2.1.1	SHELL & SKIRT FABRICATION	A. IDENTIFICATION OF MATERIAL & TRANSFER OF ATTESTATION	MAJOR	VISUAL & MEASRT.	100%	DRG. & TCS & SPEC	DRG. TCS & SPEC	INSP. RECORD		P	V	V		
		B. DIMENSIONAL CONFORMITY OF SHELL & SKIRT AFTER ROLLING	MAJOR	MEASRT.	100%	DRAWING	ASME SEC.VIII DIV.I	INSP. RECORD		P	V			
		C. L SEAM FIT UP OF SHELL & SKIRT (WELD EDGE PREPARATION 100% PT/MT IF THICKNESS >40MM)	CRITICAL	MEASRT.	100%	DRAWING	ASME SEC.VIII DIV.I	INSP. RECORD		P	V	V		
		D. PT AFTER BACKCHIP OF WELD	CRITICAL	NDE	100%	ASME SEC.V ART.6	ASME SEC.VIII DIV.I APPX.8	INSP. RECORD	✓	P	V	V		
		E. RT OF L SEAM WELD (AS PER DRG.)	CRITICAL	NDE	SPOT	ASME SEC.V ART.2	ASME SEC.VIII DIV.I UW 52	INSP. RECORD	✓	P	V	V		REVIEW OF RT FILMS
		F. DIMN. EXAM. OF SHELL & SKIRT BELTS INCLUDING OVALITY	MAJOR	MEASRT.	100%	DRG. & ASME SEC.VIII DIV.I	DRG. & ASME SEC.VIII DIV.I	INSP. RECORD	✓	P	V	V		

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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY




SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS	
					M	C/N				D*	M	C	N		
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.	
2.1. 2	SHELL & SKIRT FABRICATION	A. C-SEAM FIT UP OF SHELL BELTS (WELD EDGE PREPARATION 100% PT/MT IF THICKNESS >40MM)	CRITICAL	MEASRT.	100%		DRAWING	DRG. & ASME SEC VIII DIV.1	INSP. RECORD			P	V	V	
		B. PT AFTER BACK CHIP OF WELD	CRITICAL	NDE	100%		ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD			P	V	V	
		C. RT OF C-SEAM WELD	CRITICAL	NDE	SPOT		ASME SEC.V ART.2	ASME SEC.VIII DIV.1 UW 52	INSP. RECORD	✓		P	V	V	REVIEW OF RT FILMS
		D. PT/MT OF L AND C SEAM WELDS (OUTSIDE THE SHELL)	CRITICAL	NDE	100%		ASME SEC..V ART.6/7	ASME SEC.VIII DIV.1 APPX.8/6	INSP. RECORD	✓		P	W	W	
2.1. 3	SHELL & SKIRT FABRICATION	A. IDENTIFICATION OF MATERIAL & TRANSFER OF ATTESTATION FOR BRANCH PIPE, FLANGE, PADS AND LUGS	MAJOR	VISUAL	100%		DRG. TCS & SPEC.	DRG. TCS & SPEC	INSP. RECORD			P	V	V	
		B. FIT UP OF BRANCH PIPES, LUGS, TO THE SHELL. PADS TO THE SHELL (ENSURE THEIR ORIENTATION)	MAJOR	MEASRT.	100%		DRAWING	DRAWING	INSP. RECORD			P	V	V	
		C. PT EXAM. OF NOZZLES, LIFTING LUGS & PADS (OUTSIDE)	CRITICAL	NDE	100%		ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD	✓		P	W	W	
		D. SOAP SOLUTION TEST OF RF PADS OF BRANCH PIPES & NOZZLES	MAJOR	NDE	100%		HE71022 / 01	HE71022 / 01	INSP. RECORD	✓		P	V	V	
		E. DIMENSIONAL EXAMINATION OF FABRICATED SHELL	MAJOR	MEASRT.	100%		DRAWING	DRG. & ASME SEC.VIII DIV.1	INSP. RECORD	✓		P	V	V	
2.2	TUBE NEST FABRICATION														
2.2. 1	TUBE NEST FABRICATION	MATERIAL IDENTIFICATION & VERIFICATION OF TCS FOR BAFFLES AND INNER SHROUDS OF DC ZONES	MAJOR	VISUAL	100%		DRG. TC & SPEC	DRG. TC & SPEC	INSP. RECORD			P	V	V	


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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY

	MANUFACTURER'S NAME & ADDRESS:	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003 BHEL WO NO: WO:1-0-323-282-00 TO 1-0-32-290-00				
	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD	ITEM: LP HEATER (800 MW) SUB SYSTEM: TG & AUX PKG	QP No HYQA/SSMQP/HE/510/5096 Rev. No.:02 DATE: 09.04.2019							




SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

2.2.2	TUBE NEST FABRICATION	A. DIMENSIONAL CONFORMITY OF TUBE SHEET AFTER MACHINING FOR HOLE SIZE, FINISH, CUTOUT & ORIENTATION.	MAJOR	MEASRT.	100%	DRAWING	DRAWING	INSP. RECORD	✓	P	W	W	PROPER ALIGNMENT OF BAFFLE PLATE HOLES TO BE ENSURED
2.2.3	TUBE NEST FABRICATION	A. EXAM. OF SKELETON FABRICATION INCLUDING BAFFLE ORIENTATION, LOCATION OF IMPINGEMENT PLATE & AIR DUCT WELDS	MAJOR	MEASRT.	100%	DRAWING	DRAWING	INSP. RECORD		P	V	V	PRIOR TO INSERTION OF TUBES
		B. PT ON AIR DUCT WELDS	CRITICAL	NDE	100%	ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD	✓	P	V	V	
		C. EXAMINATION OF TUBE BUNDLE DURING & AFTER INSERTION OF TUBES	CRITICAL	VISUAL	100%	DRAWING	DRAWING	INSP. RECORD	✓	P	V	V	
		D. EXAM. OF TUBE EXPANSION FOR % THINNING	CRITICAL	MEASRT.	100%	HE71011 REV.05	HE71011 REV.05	INSP. RECORD	✓	P	W	W	2-11 % WALL THINNING R-01
		E. PNEUMATIC TESTING OF TUBE TO TUBE SHEET EXPANSION JOINT	CRITICAL	VISUAL	100%	HY 0852161	HY 0852161	INSPN. RECORD	✓	P	W	W	
2.3	TUBENEST TO SKIRT/ SHELL ASSLY.												
2.3.1	TUBENEST TO SKIRT/ SHELL ASSLY.	A. FIT UP OF SKIRT TO TUBE NEST	MAJOR	MEASRT.	100%	DRAWING	ASME SEC.VIII DIV.1	INSP. RECORD		P	V	V	
		B. UT OF SKIRT TO TUBE NEST WELD	CRITICAL	NDE	100%	ASME SEC.V ART.5	ASME SEC.VIII DIV.1 APPX.12	INSP. RECORD	✓	P	W	W	
		C. MT OF SKIRT TO TUBE NEST WELD	CRITICAL	NDE	100%	ASME SEC.V ART.7	ASME SEC.VIII DIV.1 APPX.6	INSP. RECORD	✓	P	W	W	
		D. FIT UP OF SHELL TO SKIRT	MAJOR	MEASRT.	100%	DRAWING	ASME SEC.VIII DIV.1	INSP. RECORD		P	V	V	




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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY

	MANUFACTURER'S NAME & ADDRESS:	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003 BHEL WO NO: WO:1-0-323-282-00 TO 1-0-32-290-00			
	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD	ITEM: LP HEATER (800 MW) SUB SYSTEM: TG & AUX PKG	QP No HYQA/SSMQP/HE/510/5096 Rev. No.:02 DATE: 09.04.2019						

SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
2.3.1	TUBENEST TO SKIRT/ SHELL ASSLY.	E. UT OF SHELL TO SKIRT WELD	CRITICAL	NDE	100%		ASME SEC.V ART.5	ASME SEC.VIII DIV.1 APPX.12	INSP. RECORD	✓	P	W	W	
		F. MT OF SHELL TO SKIRT WELD	CRITICAL	NDE	100%		ASME SEC.V ART.7	ASME SEC.VIII DIV.1 APPX.6	INSP. RECORD	✓	P	W	W	
2.4	WATER BOX ASSEMBLY													
2.4.1	WATER BOX ASSEMBLY	A. MATERIAL IDENTIFICATION & VERIFICATION OF TCS FOR SEGMENT & DISHED ENDS	MAJOR	VISUAL	100%		DRG. TC & SPEC	DRG. TC & SPEC	INSP. RECORD		P	V	V	
		B. MATERIAL IDENTIFICATION & VERIFICATION OF TCS FOR MANHOLE FORGING & NOZZLES	MAJOR	VISUAL	100%		DRG. TC & SPEC	DRG. TC & SPEC	INSP. RECORD		P	V	V	
2.4.2	WATER BOX ASSEMBLY	A. FIT UP OF L-SEAM SEGMENT	MAJOR	MEASRT.	100%		DRAWING	ASME SEC.VIII DIV.1	INSP. RECORD		P	V	V	
		B. PT AFTER BACK CHIP OF THE ABOVE	CRITICAL	NDE	100%		ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD		P	V	V	
		C. RT OF L-SEAM WELD	CRITICAL	NDE	100%		ASME SEC.V ART.2	ASME SEC.VIII DIV.1 UW 51	INSP. RECORD	✓	P	V	V	REVIEW OF RT FILMS
		D. FIT UP OF DISHED ENDS TO SHELL SEGMENTS	MAJOR	MEASRT.	100%		DRAWING	DRAWING	INSP. RECORD		P	V	V	
		E. PT AFTER BACKCHIP OF DISHED END TO SEGMENT WELD (C SEAM)	CRITICAL	NDE	100%		ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD	✓	P	V	V	
		F. RT OF DISHED END TO SEGMENT WELD (C SEAM)	CRITICAL	NDE	100%		ASME SEC.V ART.2	ASME SEC.VIII DIV.1 UW 51	INSP. RECORD	✓	P	V	V	REVIEW OF RT FILMS
2.4.3	WATER BOX ASSEMBLY	A. FIT UP OF BRANCHES, MANHOLE FACINGS TO THE WATER BOX	CRITICAL	MEASRT.	100%		DRAWING	DRAWING	INSP. RECORD		P	V	V	
		B. PT EXAM. OF THE COMPLETED WELD	CRITICAL	NDE	100%		ASME SEC.V ART.6	ASME SEC.VIII DIV.1 APPX.8	INSP. RECORD	✓	P	W	W	

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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY




SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
2.4.3	WATER BOX ASSEMBLY	C. DIMN. EXAM. OF WATER BOX	MAJOR	MEASRT.	100%		DRAWING	DRAWING	INSP. RECORD	✓	P	V	V	
		D. PT/MT OF THE L & C SEAM WELDS OF WATER BOX	CRITICAL	NDE	100%		ASME SEC.V ART.6/7	ASME SEC.VIII DIV.1 APPX.8/6	INSP. RECORD	✓	P	W	W	
2.5	FINAL ASSEMBLY													
2.5.1		A. FIT UP OF WATER CHAMBER TO TUBE SHEET	MAJOR	MEASRT.	100%		DRAWING	DRG. & ASME SEC.VIII DIV.1	INSP. RECORD		P	V	V	
		B. UT OF THE ABOVE WELD	CRITICAL	NDE	100%		ASME SEC.V ART.5	ASME SEC.VIII DIV.1 APPX.12	INSP. RECORD	✓	P	W	W	
		C. MT OF THE ABOVE WELDS	CRITICAL	NDE	100%		ASME SEC.V ART.7	ASME SEC.VIII DIV.1 APPX.6	INSP. RECORD	✓	P	W	W	
		D. EXAMINATION FOR DIMN. CONFORMITY AND COMPLETENESS	MAJOR	MEASRT.	100%		DRAWING	DRG. & ASME SEC.VIII DIV.1	INSP. RECORD	✓	P	W	W	R-01
2.6	FINAL TESTING & DESPATCH													
2.6.1	HYDRO TEST	A. SHELL SIDE HYDROSTATIC TEST	CRITICAL	VISUAL	100%		HY0852061/ APPROVED DRG.	HY0852061/ APPROVED DRG.	HYDRO TEST REPORT	✓	P	W	W	CHP
		B. TUBE SIDE HYDROSTATIC TEST	CRITICAL	VISUAL	100%		HY0852061/ APPROVED DRG.	HY0852061/ APPROVED DRG.	HYDRO TEST REPORT	✓	P	W	W	CHP
2.6.2	PREDESPATCH INSPECTION	A. DRYING AND NITROGEN FILL UP & CHECKUP FOR PRESSURE & ITS MAINTENANCE WITHOUT DECAY AFTER 24HOURS	MAJOR	VISUAL	100%		HE71037 REV.02	HE71037 REV.02	INSPECTION RECORD	✓	P	V	V	SUPPLIER'S TC FOR N2 PURITY SHALL BE FURNISHED R-01


		LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER. N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO.: 9585-001-110-QVM-Q-872 REV 02 CAT I		
MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY

SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
2.6. 2	PREDESPATCH INSPECTION	B. PAINTING AND BLANKING OF ALL OPENINGS	MAJOR	VISUAL	100%		HE -5-1107 REV.04 & APPROVED PAINTING SCHEDULE	HE 51107 REV.04 & APPROVED PAINTING SCHEDULE	INSPECTION RECORD	✓	P	V	V	R-01
		C. PRE-DISPATCH INSPECTION FOR CLEANLINESS, COMPLETENESS, DIMENSIONAL CHECK & BLANKING OF OPEN HOLES AND REVIEW OF QUALITY DOCUMENTATION	MAJOR	VISUAL	100%		APPROVED QP & DRG.	APPROVED QP & DRG.	-		P	V	V	CHP

NOTES:




- HOT BENDING TO FORM "U" TUBE SHALL NOT BE CARRIED OUT.
- DRAWN TUBE SHALL BE CLEANED AND BRIGHT ANNEALED AS PER SPECIFICATION.
- U-BEND PORTION PLUS 300 MM OF EACH LEG LENGTH OF THE TUBE SHALL BE CLEANED PRIOR TO SUBSEQUENT ANNEALING AFTER BENDING.
- HYDRAULIC TESTING OF U-TUBES SHALL BE CARRIED OUT WITH DE-MINERALISED WATER (CHLORIDE CONTENT 10 PPM MAX) AT 1.3 TIMES OF THE DESIGNED PRESSURE OR 70 KG/CM² WHICHEVER IS GREATER.
- RESIDUAL CHLORIDE CONTAMINATION OF THE FINISHED TUBES READY FOR DISPATCH SHALL NOT EXCEED 10.7 MG/M². THIS SHALL BE CERTIFIED IN THE CERTIFICATE.
- TUBES SHALL BE DULY PROTECTED BY SUITABLE RUST PREVENTIVE MATERIALS TO PROTECT FROM CORROSION DURING TRANSIT AND SUBSEQUENT STORAGE.
- TUBES SHALL BE PACKED IN SEAWORTHY PACKING AND SHALL BE CAPABLE OF WITHSTANDING MECHANICAL DAMAGES DURING HANDLING & TRANSIT.
- DRAWING AND BENDING LUBRICANTS SHALL BE CHLORIDE FREE.


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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER		FOR NTPC USE			REVIEWED BY	APPROVED BY	APPROVAL SEAL
SIGNATURE								

	MANUFACTURER'S NAME & ADDRESS:		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003 BHEL WO NO: WO:1-0-323-282-00 TO 1-0-32-290-00							
	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD		ITEM: LP HEATER (800 MW) SUB SYSTEM: TG & AUX PKG		QP No HYQA/SSMQP/HE/510/5096 Rev. No.:02 DATE: 09.04.2019									
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
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1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.


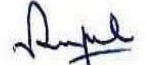

9. INTERNAL CLEANING TO BE DONE BY BLOWING OF ACETONE SOAKED FELT PLUGS OR BY NITROGEN OR INERT GAS.
10. HOT FORMED DISHED END SHALL BE NORMALIZED EVEN IF HOT FORMING DONE AT NORMALIZING TEMPERATURE.
11. FOR HOT FORMED AND SUBSEQUENTLY NORMALIZED DISHED ENDS ONLY.
12. LATEST REVISIONS OF SPECIFICATIONS/DRAWINGS APPLICABLE, HOWEVER THE COPY OF SAME WILL BE SHOWN TO BHEL/BHEL NOMINATED THIRD PARTY INSPECTION AGENCY (TPIA).
13. ALL APPLICABLE WPS, PQR & WQR SHALL BE REVIEWED BY BHEL/BHEL NOMINATED THIRD PARTY INSPECTION AGENCY (TPIA).
14. THIS QAP INCLUDES INSPECTION STAGES OF RAW MATERIAL & BOI, NO SEPARATE QAP FOR RAW & BOI MATERIAL SHALL BE SUBMITTED. SEPARATE QAP FOR TUBES IN CASE OF INDIAN VENDOR SHALL BE FURNISHED.
15. ALL MATERIALS SHALL BE AS PER APPROVED DRAWING / DATA SHEET.
16. IN CASE OF ANY INCONSISTENCY BETWEEN QUALITY PLAN AND DRAWING / DATA SHEET THE LATTER WILL PREVAIL.

GENERAL LEGENDS					
NDE	NON DESTRUCTIVE EXAMINATION	ASSLY	ASSEMBLY	CHEM	CHEMICAL
UT	ULTRASONIC TEST	QC	QUALITY CONTROL	MECH	MECHANICAL
PT	DYE PENETRANT TEST	TPIA	THIRD PARTY INSPECTION AGENCY	TC	TEST CERTIFICATES
MT/MPI	MAGENTIC PARTICLE INSPECTION	WPS	WELDING PROCEDURE SPECIFICATION	VERFN	VERIFICATION
RT	RADIOGRAPHY TEST	WQR	WELDER QUALIFICATION RECORD	IGC	INTER GRANULAR CORROSION
MEASRT	MEASUREMENT	PQR	PROCEDURE QUALIFICATION RECORD	HT	HEAT TREATMENT
DIMN	DIMENSION	IR	INSPECTION REPORT	QA	QUALITY ASSURANCE
REVISION HISTORY					
SL NO.	REVISION DETAILS	DATE OF REV	PREPARED BY	REVIEWED BY	APPROVED BY
1	FIRST ISSUE	02.07.2018	AB	DSS	DSS
2	FIRST REVISION	02.08.2018	AB	DSS	DSS
3	SECOND REVISION	09.04.2019	AB	DSS	DSS


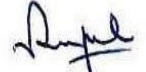

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MANUFACTURER / SUB-SUPPLIER	MAIN SUPPLIER					
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY


	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003							
	ITEM: SS WELDED U TUBES FOR LP HEATER , BHEL SPEC HE 51103 REV 19		QP No : 9585-001-110-QVM-Q-872A Rev. No.:00 DATE: 09.04.2019											
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N			M	C	N			
1.	2.	3.	4.	5.	6		7	8	9.	D*	** 10.			11.

1.0 RAW MATERIAL INSPECTION													
1.1	COIL	A) IDENTIFICATION OF COIL MARKINGS W.R.T. TC	MAJOR	VISUAL	100%	TEST CERTIFICATE	BHEL SPECIFICATION & PO	TC & INSPN. RECORD		V	V		
		B) VISUAL & DIMN. EXAM	MAJOR	VISUAL & MEASURT	RANDOM	TEST CERTIFICATE	BHEL SPECIFICATION & PO	TC & INSPN. RECORD		P			
1.2	VERIFICATION OF COIL TEST CERTIFICATE	A) CHEMICAL COMP.	MAJOR	TC REVIEW	100%	TEST CERTIFICATE	BHEL SPECIFICATION & PO	TC & INSPN. RECORD	✓	P	V	V	CARBON CONTENT <= .05 %MAX FOR TP 304
		B) MECH. PROPERTIES	MAJOR		100%	TEST CERTIFICATE	BHEL SPECIFICATION & PO	TC & INSPN. RECORD	✓	P	V	V	
2.0 IN PROCESS INSPECTION													
2.1	TUBE FORMING & WELDING	WELDING PARAMETERS	MAJOR	VISUAL	PERIODIC CHECKING	MFR. STD.	MFR. STD.	INSPN. RECORD		P			
2.2	ID BEAD ROLLING	ID BEAD HEIGHT	MAJOR	MEASURT.	RANDOM	MFR. STD.	MFR. STD.	-DO-	✓	P	V		NOTE 8
2.3	OD BEAD GRINDING	SURFACE CONDITION	MAJOR	VISUAL	100%	MFR. STD.	MFR. STD.	-DO-		P			
2.4	INTERMEDIATE / FINAL DRAWING	SOLUTION ANNEALING AFTER DRAWING OPERATION	MAJOR	HEAT TREATMENT	100%	MFR. STD.	MFR. STD.	-DO-		P			NOTE 2
2.5	TUBE WASHING	SURFACE CONDITION	MAJOR	VISUAL	100%	MFR. STD.	MFR. STD.	-DO-		P			
2.6	BRIGHT ANNEALING	SOLUTION ANNEALING IN INERT ATMOSPHERE	MAJOR	HEAT TREATMENT	100%	MFR. STD. & SA688	MFR. STD. & SA688	HT REPORT	✓	P	V	V	NOTE 3
2.7	FINAL SIZING	OD & SURFACE CONDITION	MAJOR	MEASURT.	100%	BHEL SPECIFICATION & PO	BHEL SPECIFICATION & PO	INSPN. RECORD		P			
2.8	STRAIGHTENING	STRAIGHTNESS	MAJOR	VISUAL	100%	BHEL SPECIFICATION & PO	BHEL SPECIFICATION & PO	INSPN. RECORD		P			


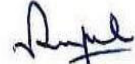

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					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6		7	8	9.		** 10.			11.
2.9	EDDY CURRENT TEST	INTERNAL FLAWS	MAJOR	NDE	100%	10%	ASTM E426 & SA688 S1	ASME SA1016	SUPPLIER TC	✓	P	W	W	10 % BY BHEL TPIA 5 % BY NTPC
2.10	ULTRASONIC TEST	INTERNAL FLAWS	MAJOR	NDE	100%	10 %	ASTM E213	ASME SA1016	SUPPLIER TC	✓	P	W	V	10 % BY BHEL TPIA
2.11	CUT TO LENGTH WITH ALLOWANCE	LENGTH, THICKNESS, STRAIGHTNESS, GO RING GAUGE PASS, EDGE BURR AND SURFACE CONDITION	MAJOR	MEASURT, VISUAL	100%		MFR STD	BHEL SPECIFICATION & PO	INSPN. RECORD		P			
2.13	U-BENDING OF TUBES	CENTRE LINE BEND RADIUS (CLR)	MAJOR	VISUAL	100%		MFR. STD.	MFR. STD.	INSPN. RECORD		P	V	V	
2.14	U-BEND TUBE MOCK UP	WALL THINNING	MAJOR	MEASURT	ONE SAMPLE OF MINIMUM BEND RADIUS FOR EACH THICKNESS		BHEL SPECIFICATION & DRAWING	BHEL SPECIFICATION & DRAWING	INSPN. RECORD/MOCK UP RECORD	✓	P	W	V	
2.15	STRESS RELIEVING OF U- BEND PORTION	SOLUTION ANNEALING	MAJOR	VISUAL	100%		SA688 / PO	SA688 / PO	INSPN. RECORD	✓	P	V	V	
3.0	FINAL INSPECTION													
3.1	HYDROSTATIC TESTING	PRESSURE, TIME, LEAKAGE	MAJOR	VISUAL	100%		ASTM A1016	ASTM A1016	SUPPLIER TC	✓	P	W	W	NOTE 4 5% RANDOM BY NTPC
3.2	CUT TO LENGTH, DEBURR	LENGTH, EDGE CONDITION	MAJOR	MEASURT	100%		BHEL SPECIFICATION & PO	BHEL SPECIFICATION & PO	INSP. RECORD		P			NOTE - 11
3.3	DIMN. CONFORMITY & VISUAL EXAM.	OD, CLR, THICKNESS, LENGTH, OVALITY, LEG SPACING, PLANE OF BEND, CURVATURE, EDGE BURRS., SURFACE CONDITION	MAJOR	VISUAL & MEASURT.	100%	10%	BHEL DRG. / PO	BHEL DRG. / PO	INSP. RECORD	✓	P	W	W	10 % BY BHEL TPIA 1 % BY NTPC

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	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003			
		ITEM: SS WELDED U TUBES FOR LP HEATER , BHEL SPEC HE 51103 REV 19		QP No : 9585-001-110-QVM-Q-872A Rev. No.:00 DATE: 09.04.2019					

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					M	C/N			M	D*	M	C	N	
1.	2.	3.	4.	5.	6		7	8	9.	D*	** 10.			11.
3.4	TEST ON TUBES	a. CHEMICAL COMPOSITION	MAJOR	CHEMICAL	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	V	V	
		b. TENSILE TESTING	MAJOR	MECH.	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	W	V	
		c. HARDNESS TESTING	MAJOR	MECH.	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	W	V	
		d. REVERSE BEND TEST	MAJOR	MECH.	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	W	V	
		e. FLATTENING TEST	MAJOR	MECH.	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	W	V	
		f. FLANGING TEST	MAJOR	MECH.	AS PER SPEC.		SA688, SA1016 & PO	SA688, SA1016 & PO	SUPPLIERS TC	✓	P	W	V	
		g. INTER GRANULAR CORROSION TESTING	MAJOR	MET.	AS PER SPEC.		SA688 & PO	SA688 & PO	SUPPLIERS TC	✓	P	V	V	
		h. RESIDUAL CHLORIDE FOR TUBE INSIDE & OUTSIDE SURFACE	MAJOR	CHEM.	-DO-		SA688 & PO	SA688 & PO	INSP. RECORD	✓	P	V	V	
		i. RESIDUAL CIRCUMFERENTIAL STRESS	MAJOR	MEASURT	ONE SPECIMEN PER LOT		BHEL SPECIFICATION	MAX. 4KG/MM2	INSPN. RECORD	✓	P	W	V	
4.0	PACKING & DESPATCH	VERIFICATION OF ALL TCS FOR COMPLETION.	MAJOR	VISUAL	100%		PO, SPEC, DRG. & QP	PO, SPEC, DRG. & QP	INSP. RECORD		P	V		
		CLEANLINESS OF INSIDE SURFACE OF TUBES	MAJOR	VISUAL	100%		BHEL SPECIFICATION	BHEL SPECIFICATION	INSP. RECORD		P	V		
		IDENTIFICATION, PRESERVATION & PACKING	MAJOR	-DO-	100%		PO / BHEL DRG & AA0490002	PO / BHEL DRG & AA0490002	INSP. RECORD	✓	P	V		NOTE 5

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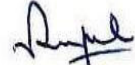

13) In case of differing/conflicting requirements, anomalies, any drawing/specn shall prevail over quality plan


14) This QP is applicable only for NTPC approved vendors as per LOA approved vendor list for Patratu

15) This QP is applicable for the main as well as subsequent spare supplies.

16) For imported vendors, BHEL & NTPC witness shall be considered Verification




APPROVED SUB VENDOR	
1. NEOTISS LTD - HYDERABAD	# 9-14, PASHAMYLARAM, I.D.A, ISNAPUR, PATANCHERU MANDAL, MEDAK DISTRICT, ANDHRA PRADESH, INDIA – 502 307.
2. RATNADEEP METLAS & TUBES AHMEADABAD	Survey No 1015 Village Rajpur, Ahemdabad Mehsana Highway, Tal. Kadi, Dist.: Mehsana - 382 715, Gujarat India.
3. RATNAMANI METALS & TUBES – AHMEDABAD /KUTCH	Plant - Indrad RATNAMANI METALS & TUBES LIMITED, SURVEY NO. 423, AHMEDABAD- MEHSANA HIGHWAY INDRAD Tal,- KADI DIST. MEHSANA, VILLAGE - INDRAD NEAR CHHATRAL GIDC INDRAD-382715 Plant- Kutch RATNAMANI METALS & TUBES LIMITED, SURVEY NO. 474, ANJAR-BHACHAU ROAD VILLAGE-BHIMASAR, Tal. ANJAR DIST. KUTCH (BHUI) BHIMASAR-370240
4. REMI - TARAPUR REMI EDELSTAHL TUBULAR LTD	Plot No. N-211/1, M.I.D.C., BOISAR, TARAPUR – 401 506. Dist.: Palghar (Maharashtra).
5. PLYMOUTH - USA	601, GRANTHAM AVE., WEST MONROE, LA 71292, USA


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SIGNATURE			FOR NTPC USE	REVIEWED BY	APPROVED BY	APPROVAL SEAL

	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003				
		ITEM: DISHED END (CS & AS) HE 51370 REV 00 HE 51527 REV 00		QP No : 9585-001-110-QVM-Q-872B Rev. No.:00 DATE: 09.04.2019						


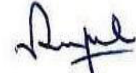

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					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.		** 10.			11.

1	PLATE MATERIAL	VERIFICATION OF MILL TEST CERTIFICATE AND IDENTIFICATION MARKS FOR MECHANICAL AND CHEMICAL PROPERTIES	MAJOR	VISUAL	100%		SA 387 GR.12 CLASS 2 (with S1, S3, S5 and S8) / SA 516 GR 70 (with S1,S5,S8)	SA 387 GR.12 CLASS 2 (with S1, S3, S5 and S8) / SA 516 GR 70 (with S1,S5,S8)	TEST CERTIFICATE		V	V	V	
2	WELD SEAM OF BLANKS (IF APPLICABLE)	1. PT ON WELD EDGE PREPARATION	MAJOR	NDE	100%		ASME SEC.V ARTICLE 6	ASME SEC.VIII DIVISION I APPENDIX 8	SUPPLIER TC	✓	P	V	V	
		2. RT OF WELD JOINT BEFORE FORMING	MAJOR	NDE	100%		ASME SEC.V ARTICLE 2	ASME SEC.VIII DIVISION 1 UW 51	IR	✓	P	V	V	
		3. MECHANICAL TEST ON TEST COUPON	MAJOR	VISUAL	SAMPLE		SA 387 GR.12 CLASS 2 / SA 516 GR 70	SA 387 GR.12 CLASS 2 / SA 516 GR 70	SUPPLIER TC	✓	P	W / V	V	
3	IN PROCESS	1 UT OF PLATE BEFORE FORMING	MAJOR	NDE	100%		SA 435	SA 435	SUPPLIER TC/IR	✓	P	V	V	NOTE 1
		2 DIMENSIONAL CONFORMITY INCLUDING CHECKING FOR MINIMUM THICKNESS	MAJOR	MEASUREMENT	100%		BHEL DRAWING	BHEL DRAWING	IR	✓	P	W	W	
		3 RT ON WELD SEAM AFTER FORMING (IF APPLICABLE)	MAJOR	NDE	100%		ASME SEC VIII ARTICLE 2	ASME SEC VIII DIVISION I UW 51	IR,RT FILM	✓	P	V	V	
		4 VERIFICATION OF PWHT CHARTS FOR NORMALISING AFTER FORMING	MAJOR	VISUAL	100%		ASME SEC VIII DIVISION I UCS 56	ASME SEC VIII DIVISION I UCS 56	HT CHART,IR	✓	P	V	V	

 ALOK BEHERA SR.ENGR/QA	 DS SATPUTE AGM/QA	LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M-MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER / MAIN SUPPLIER TPIA. N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO 9585-001-110-QVM-Q-872B CAT -I		
MAIN SUPPLIER						
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY

	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003				
		ITEM: DISHED END (CS & AS) HE 51370 REV 00 HE 51527 REV 00		QP No : 9585-001-110-QVM-Q-872B Rev. No.:00 DATE: 09.04.2019						

SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS	
					M	C/N				M	C	N		
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
3	IN PROCESS	5 PT / MT ON ENTIRE SURFACE AFTER FORMING	MAJOR	NDE	100%		ASME SEC.V ARTICLE 6/7	ASME SEC.VIII DIVISION 1 APPENDIX 8/6	IR	✓	P	V	V	
4	IN PROCESS /FINAL	6 CHECK FOR THICKNESS AFTER REMOVAL OF SCALES	MAJOR	MEASUREMENT	100%		BHEL DRAWING	BHEL DRAWING	IR		P	V	V	
		7 MT OF WELD SEAMS ON INSIDE AND OUTSIDE SURFACES AFTER FORMING AND NORMALISATION (IF APPLICABLE)	MAJOR	NDE	100%		ASME SEC.V ARTICLE 7	ASME SEC.VIII DIVISION 1 APPENDIX 6	IR	✓	P	W	W	
		8 UT ON OUTER SURFACE AFTER FORMING	MAJOR	NDE	100%		SA 435	SA 435	IR	✓	P	W	W	
		9 LIFTING LUG ARRGT PT LIFTING LUG WELD	MAJOR	VISUAL NDE	100%		BHEL DRG, ASME SEC.V ARTICLE 6	BHEL DRG,ASME SEC.VIII DIVISION 1 APPENDIX 8	IR	✓	P	W	V	
		10 MATCHING OF DISHED ENDS DIAMETER	MAJOR	MEASRT	100 %		BHEL DRG,SPEC	BHEL DRG,SPEC	IR	✓	P	V		NOTE -5
		11 MARKING OF DISHED ENDS	MAJOR	VISUAL	100%		BHEL DRAWING,SPEC	BHEL DRAWING,SPEC	IR	✓	P	V		
		12 MECHANICAL TESTS ON TEST COUPON	MAJOR	VISUAL	SAMPLE		SA 387 GR.12 CLASS 2 / SA 516 GR 70	SA 387 GR.12 CLASS 2 / SA 516 GR 70	IR	✓	P	W /V	V	NOTE -4

		LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER / MAIN SUPPLIER TPIA. N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO 9585-001-110-QVM-Q-872B CAT -I		
ALOK BEHERA SR.ENGR/QA	DS SATPUTE AGM/QA					
MAIN SUPPLIER						
SIGNATURE			FOR NTPC USE	REVIEWED BY	APPROVED BY	APPROVAL SEAL


	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003							
	ITEM: DISHED END (CS & AS) HE 51370 REV 00 HE 51527 REV 00		QP No : 9585-001-110-QVM-Q-872B Rev. No.:00 DATE: 09.04.2019											
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N					M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

Notes:

- NOT REQUIRED IF ALREADY UT TESTED AT MILL.
- PROJECT SPECIFIC REQUIREMENTS, IF ANY, AS PER P.O. SHALL ALSO BE COMPLIED WITH.
- ALL REQUIREMENTS AS PER BHEL SPECIFICATION AND DRAWING ARE TO BE COMPLIED WITH.
- VALID IBR TC SHALL BE FURNISHED AS PER IBR 1950 REGULATION. VERIFICATION SHALL BE BY BHEL /BHEL TPIA.
- WHEN DISHED ENDS ARE ORDERED IN PAIRS FOR SINGLE SHELL.
- IN CASE OF SPINNING METHOD IS ADOPTED, THE CENTRAL HOLE SHALL BE PLUGGED AND RADIOGRAPHED 100%. REVIEW OF RT FILMS BY BHEL TPI
- VERIFICATION OF WPS, WPQ AS PER ASME SEC-IX BY BHEL TPIA.
- MATERIAL OF CONSUTRCTION SHALL BE AS PER NTPC APPROVED GA DRAWING OF EQUIPMENT.
- IN CASE OF DIFFERING/CONFLICTING REQUIREMENTS, ANOMALIES, ANY DRAWING/SPECN SHALL PREVAIL OVER QUALITY PLAN
- THIS QP IS APPLICABLE ONLY FOR NTPC APPROVED VENDORS AS PER LOA APPROVED VENDOR LIST FOR PATRATU
- THIS QP IS APPLICABLE FOR THE MAIN AS WELL AS SUBSEQUENT SPARE SUPPLIES.
- FOR IMPORTED VENDORS, BHEL & NTPC WITNESS SHALL BE CONSIDERED VERIFICATION




GENERAL LEGENDS					
NDE	NON DESTRUCTIVE EXAMINATION	ASSLY	ASSEMBLY	CHEM	CHEMICAL
UT	ULTRASONIC TEST	QC	QUALITY CONTROL	MECH	MECHANICAL
PT	DYE PENETRANT TEST	TPIA	THIRD PARTY INSPECTION AGENCY	TC	TEST CERTIFICATES
MT/MPI	MAGENTIC PARTICLE INSPECTION	WPS	WELDING PROCEDURE SPECIFICATION	VERFN	VERIFICATION
RT	RADIOGRAPHY TEST	WQR	WELDER QUALIFICATION RECORD	IGC	INTER GRANULAR CORROSSION
MEASRT	MEASUREMENT	PQR	PROCEDURE QUALIFICATION RECORD	HT	HEAT TREATMENT
DIMN	DIMENSION	IR	INSPECTION REPORT	QA	QUALITY ASSURANCE
COC	CERTIFICATE OF COMPLIANCE	DRG /DS	DRAWING /DATA SHEET	PO	PURCHASE ORDER


		LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M-MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER / MAIN SUPPLIER TPIA. N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO 9585-001-110-QVM-Q-872B CAT-I		
				FOR NTPC USE	REVIEWED BY	APPROVED BY
ALOK BEHERA SR.ENGR/QA		DS SATPUTE AGM/QA				
MAIN SUPPLIER						
SIGNATURE						

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					M	C/N					M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	**10.			11.

APPROVED SUB VENDORS OF PATRATU ALONG WITH APPROVAL CONDITION AS MENTION IN LOA .




1. METAL ENGINEERS -HYDERABAD	Bala Nagar, Hyderabad
2. SATYA FABRICATORS - HYDERABAD	PLOT NO.1-B, SURVEY NO.308,SRI VENKATESWARA CO.OP INDL. ESTATE,JEEDIMETLA, 500055 HYDERABAD
3. MAHENDRA DISHED ENDS -THANE	WAGEL INDUSTRIAL ESTATE,PLOT NO. B-13, ROAD NO. 12, 400604 , THANE
4. CEREC – VADODARA	295, N. H. 8, MANGLEJ, KARJ 391210 VADODARA
5. CEREC – FRNACE	2, RUE RENE FOURCHET,B.P.2, 59245 RECQUIGNIES, FRANCE.
6. ANUP ENGINEERING LTD -INDIA	BEHIND 66 KV ELECTRICAL,SUB STATION ODHAV ROAD,382415 AHMEDABAD
7. KONIG & CO – GERMANY	POST FACH-1262, D-57236 NETPHEN, GERMANY.
8. ICEM ENGINEERING - THANE	M.S.ROAD, RAGHUNATH NAGAR, THANE


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MAIN SUPPLIER						
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY

	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD	MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003				
		ITEM: SMALL FORGINGS AND FORGING OTHER THAN HP HEATER TUBE SHEET		QP No : 9585-001-110-QVM-Q-872 C Rev. No.:00 DATE: 09.04.2019						

SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C/N				M	C	N	
1.	2.	3.	4.	5.	6		7	8	9.	D*	** 10.		11.

1.0 FORGING OTHER THAN HP HEATER TUBE SHEET & SMALL FORGINGS													
1.1	SMALL FORGINGS AND FORGING OTHER THAN HP HEATER TUBE SHEET	VERIFICATION OF MILL TC CHEM. & MECH. PROPERTIES OF INGOTS	CRITICAL	VISUAL	100%	SA 350 LF2/SA182 F11/SA 105,BHEL SPEC & PO	SUPPLIER'S TC	✓	✓	✓	✓		
1.2		FORGING PROCOESS – REDUCTION RATIO	MAJOR	TC REVIEW	100%	SA 350 LF2/SA182 F11/SA 105,BHEL SPEC & PO	SUPPLIER'S TC	✓	✓	✓	✓		
1.3		VERIFICATION OF HT	MAJOR	HT	100 %	SA 350 LF2/SA182 F11/SA 105,BHEL SPEC & PO	HT CHART/HT REPORT	✓	P	✓	✓		
1.4		MECH. PROPERTIES – TS,YS,% LONGATION	MAJOR	MECH	SAMPLE/HEAT	SA 370	SA 350 LF2/SA182 F11/SA 105,BHEL SPEC & PO	SUPPLIER'S TC	✓	P	✓	✓	
1.5		DIM. CONFORMITY	MAJOR	MEASURT.	100%	BHEL DRG.	BHEL DRG. & PO	SUPPLIER'S TC	✓	P	W	✓	
1.6		VERIFICATION OF TCS, IDENTIFICATION & MARKING/STAMPING OF MATERIAL AS PER SPECN. & QP	MAJOR	VISUAL	100%	BHEL DRG. & QP	BHEL DRG. & QP	SUPPLIER'S TC	✓	P	✓		
1.7		UT EXAM. AFTER MACHINING	MAJOR	NDE	100%	SA 388	HE71045	NDE REPORT	✓	P	W	✓	FOR HP HEATER NOZZLE FORGING AND MANWAY FORGING,
1.8		MT ON OUTER SURFACE	MAJOR	NDE	100%	ASME Sec.V Art.7	ASME Sec.VI II Div.I , Appx.6	NDE REPORT	✓	P	W	✓	LP HEATER FEED WATER NOZZLE AND MAN WAY FORGING

 ALOK BEHERA SR.ENGR/QA	 DS SATPUTE AGM/QA	LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER/MAIN SUPPLIER TPIA . N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO 9585-001-110-QVM-Q-872 C REV 00 CAT II		
MAIN SUPPLIER						
SIGNATURE				FOR NTPC USE	REVIEWED BY	APPROVED BY




		MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003						
				ITEM: SMALL FORGINGS AND FORGING OTHER THAN HP HEATER TUBE SHEET		QP No : 9585-001-110-QVM-Q-872 C Rev. No.:00 DATE: 09.04.2019								
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N			M	C	N			
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.


IBR REQUIREMENTS

1. VALID IBR CERTIFICATION IN IBR FORM SHALL BE FURNISHED (IF APPLICABLE) AS PER IBR 1950 REG .

NOTES :


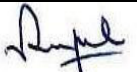

- 1) In case of differing/conflicting requirements, anomalies, any drawing/specn shall prevail over quality plan
- 2) This QP is applicable only for NTPC approved vendors as per LOA approved vendor list for Patratu
- 3) This QP is applicable for the main as well as subsequent spare supplies.

 ALOK BEHERA SR.ENGR/QA		 DS SATPUTE AGM/QA		LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER/MAIN SUPPLIER TPIA . N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"						DOC.NO 9585-001-110-QVM-Q-872 C REV 00 CAT II					
MAIN SUPPLIER										FOR NTPC USE		REVIEWED BY		APPROVED BY	
SIGNATURE															

	MANUFACTURER'S NAME & ADDRESS: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		MANUFACTURING QUALITY PLAN				PROJECT: 3 X 800 MW PATRATU STP EXPANSION PHASE -I PACKAGE: TG & AUX CONTRACT NO: CS- 9585-001 MAIN SUPPLIER: HPEP, BHEL HYDERABAD BHEL SALE ORDER NO: M-PA-1062-001,002 & 003						
			ITEM: SMALL FORGINGS AND FORGING OTHER THAN HP HEATER TUBE SHEET		QP No : 9585-001-110-QVM-Q-872 C Rev. No.:00 DATE: 09.04.2019								
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C/N				M	C	N	
1.	2.	3.	4.	5.	6		7	8	9.	D*	** 10.		11.

APPROVED SUB VENDORS OF PATRATU ALONG WITH APPROVAL CONDITION AS MENTION IN LOA

1. GOLDEN IRON & STEEL WORKS - DELHI	GOLDEN IRON & STEEL WKS. 7/19, INDUSTRIAL AREA, KIRTHINAGAR, 110015-NEW DELHI.		
2. PUNJAB STEEL WORK - DELHI	B-38, MAYAPURI INDUSTRIAL ARE NEW DELHI, INDIA 110064.		
3. ACME FORGING - RAJKOT	ACME FORGINGS PVT LTD. SURVEY NO.65, OPP. VIKRAM STEEL, P.O. T.B. HOSPITAL, RAJKOT-GONDAL HIGHWAY, VILLAGE : KANGASHIYALI, RAJKOT 360002-RAJKOT		
4. CHW FORGE - GHAZIABAD	Unit-1 for Ma	CHW FORGE PRIVATE LIMITED P.O. BOX 20,, NEAR HAPUR ROAD FLY OVER	Unit-2 for fo Achheja, PO Dujana, GT
5. GHAZIABAD ISPAT - GHAZIABAD	GHAZIABAD ISPAT UDYOG PVT LTD C-89, INDUSTRIAL AREA, BULANSHAHAR ROAD, SITE NO.1, 201009-GHAZIABAD		

 ALOK BEHERA SR.ENGR/QA	 DS SATPUTE AGM/QA	LEGEND: * RECORDS IDENTIFIED WITH (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, M.MANUFACTURER / SUB-SUPPLIER, C-MAIN SUPPLIER/MAIN SUPPLIER TPIA . N-NTPC. INDICATE "P" PERFORM "W" WITNESS AND "V" VERIFICATION. AS APPROPRIATE "CHP" NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"		DOC.NO 9585-001-110-QVM-Q-872 C REV 00 CAT II		
MAIN SUPPLIER				FOR NTPC USE	REVIEWED BY	APPROVED BY
SIGNATURE						



(Attachment to Enquiry No. E9AWS00058 Due on Date 25.09.2023 for submission by 11.00 hrs to open from 14.00 hrs.)		
INSTRUCTIONS TO BIDDER (ITB)		
NOTE: Bidder to confirm in affirmative by typing "YES" or "Applicable Data" in the response column. Deviations, if any shall be recorded in deviations/comments column (Separate sheet can be attached if needed). Non deviatable clauses are indicated as "NON DEVIATABLE".		
Sl. No.	DETAILED TERMS & CONDITIONS	BIDDER RESPONSE (YES/NO)
1	SCOPE OF SUPPLY:	
	Signed & Sealed offers are invited for the Scope of Supply of goods or services or both as detailed in the enquiry. Relevant enclosures/supporting documents / catalogue, if any shall be enclosed to the technical offer.	
2	DEFINITIONS	
A	'The Buyer' means BHEL-HPEP, Ramachandrapuram, Hyderabad-502 032 of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the companies Act having its registered office at BHEL House, Siri fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.	
B	'The Bidder' means the persons, firm, company or organization on whom the Purchase order is placed and shall be deemed to include the bidder's successors, representatives, heirs, executors and administrator as the case may be. It may also be referred to as Contractor, supplier or bidder.	
C	'Contract' shall mean and include the Purchase order incorporating various documents viz., Notice Inviting Tender (NIT), Offer, Letter Of Intent/Acceptance (LOI/LOA), Instruction to Bidders (ITB) and Special Conditions of Contract (SCC), specifications, inspection/quality plan, schedule of prices and quantities, drawings, if any, enclosed by Bidder/ provided by the Buyer or his authorized nominee and the samples or patterns if any to be provided under the provision of the contract. In case of any inconsistency or contradiction between any of the documents, the order of precedence shall be Purchase Order, LOI/LOA followed by Minutes Of Meeting (MOM), NIT, SCC, ITB.	
D	'Parties to the contract' shall mean the bidder and the buyer as named in the main body of the Purchase Order.	
E	'Goods/Material' shall include Works and Services which are incidental or consequential to supply.	
3	GENERAL INSTRUCTIONS:	
A	Mode of submission of offer shall be as indicated in SCC	Non Deviatable
B	The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated. The offer including annexures and brochures should be submitted in English / Hindi. All Pages of Techno Commercial Bids (Main Pages), ITB, SCC should be signed and Stamped. If there is a conflict in case of bilingual submission, the submission in English will be final. Prices shall be quoted both in figures and words. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 Status. Any discount / revised offer / bids submitted by a bidder on his own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.	Non Deviatable
C	Incomplete offers are liable for rejection.	Non Deviatable
D	Bidders to please note that the Terms & conditions contained in this document and SCC are to be read fully before submission of quotations.	Non Deviatable
E	Bidders are advised to comply with ITB and SCC, should there be any deviations (where deviations are permitted), it shall be entered in the deviation column. BHEL reserves the right to reject such offers or load the bid suitably for evaluation.	Non Deviatable
F	Offers shall be submitted directly, only by the bidder or by their authorized representative / agent and the offer should be in line with the regulatory guidelines (i.e. A valid Agency agreement between principal bidder and agent / representative shall be attached and the agreement shall cover the scope of services rendered by Agent, Agency Commission and any other information called for as per the regulatory guidelines). OEM / Mill details shall be provided if bidder is not a manufacturer. Bid envelops shall bear the name of Bidder. In case of submission through authorized representative/agent, the name of representative/agent should also be mentioned apart from bidder name.	Non Deviatable
G	Offer received after the specified time and date of submission will be rejected. No further correspondence shall be entertained.	Non Deviatable
H	Unsolicited offers will not be considered.	Non Deviatable
4	OTHER PARTICULARS (Please indicate applicable data)	



A	Name of the Bid currency (freely tradable foreign currency for imports and Indian Rupees for indigenous purchase).		
B	Name of the Port of loading and Port of Discharge (applicable to imports).		
5	BID SUBMISSION PROCEDURE FOR CONVENTIONAL TENDER:		
A	For Single Part Bids:		
	The complete bid shall be submitted in a single sealed cover superscribing the Tender number and due date, addressed to Sr DGM/CMM, Vendor Complex, BHEL, Hyderabad and sent by appropriate mode to above address or dropped in tender box located at vendor complex on or before the specified time and date of submission of offers, preferably in the bidder's envelope. E- mail bids shall be sent to mail ID pricebid_hyd@bhel.in only as an attachment.		Non Deviatable
B.	For two-Part Bids:		
i	<p>The offer is to be submitted in two parts viz.,</p> <p>Techno-commercial Bid - (Part-I), with all technical specification & scope including bill of material etc., Earnest Money Deposit (EMD)(wherever applicable) and unpriced bid with all applicable Commercial Terms and Conditions, rates of agency commission, duties, taxes and other charges, Signed and Stamped ITB and SCC, <u>except the price</u>, shall be kept in a separate sealed cover, superscribing enquiry No. (Techno-Commercial Bid) and due date</p> <p>AND</p> <p>Price Bid (Part-II), containing ONLY the price (including agency commission, if any) and the applicable duties/taxes/other charges shall be kept in a separate sealed cover superscribing Enquiry no. (Price bid) & due date.</p> <p>Both the above covers (Part –I & II) shall be kept in a Third cover superscribing Enquiry no. & due date.</p> <p>Bidder can also submit offer through email. Technical offer to be submitted to mail ID technicalbid_hyd@bhel.in, and price bid to be submitted to mail ID pricebid_hyd@bhel.in only as an attachment. Interchanging the information in the mails may lead to rejection of the offer. Bidder shall have no claim on e-mail offers sent to any other e-mail ID.</p> <p>In case of e-mail offers, the mail subject should contain Enquiry Number, Due date and Bidder name. Bidder address including contact details shall be mentioned in the content of the mail. Without these details, the offer is liable for rejection.</p> <p>All techno commercial terms & conditions mutually agreed prior to price bid opening shall prevail and supersede any terms and conditions specified otherwise in price bid.</p>		Non Deviatable
ii	The bidders whose bids are techno commercially not accepted will be informed and EMD shall be returned wherever submitted.		
iii	Bidders will be allowed to submit the impact on their quoted prices due to changes in technical scope, specifications, and commercial terms/conditions as specified in NIT which in the opinion of BHEL , warrant changes in prices.		Non Deviatable
C	Bids shall be opened on due time and date in the presence of bidders who may like to be present Only one representative of each bidder shall be permitted to attend the bid opening. Only the price bids of bidder (in case of two part bid) whose techno commercial bids are accepted will be opened later on a specified date.		Non Deviatable
6	DELIVERY TERMS		
A	Indigenous Purchase		
	<p>a. Terms of Delivery for dispatches to BHEL Hyderabad (HPEP) shall be FOR Destination.</p> <p>b. Terms of Delivery for Direct Dispatch (DD) items shall be Ex Works.</p> <p>i. Incase specified in SCC that insurance is in customer/BHEL scope, price quoted shall include Freight charges up to Destination. ii. Otherwise, price quoted shall include Freight and Insurance upto Destination. However, beneficiary for insurance shall be BHEL.</p>		
B.	Imports		
	The goods shall be delivered on FCA capital airport basis in case of freight by Air and CIP basis in case of freight by Sea.		
7	Documentation for Payment		
A	Indigenous Purchase		



<p>Following documents shall be submitted immediately on dispatch of material to BHEL HPEP / Site</p> <ul style="list-style-type: none">a. Original Tax Invoice (Refer ITB clause no 11 for Tax Compliance)b. Packing List - clearly showing number of packages, gross weight and net weight.c. Test/Warranty/Guarantee certificates, O&M Manual (If specified in SCC)d. Insurance intimation/declaration certificatee. Pre-dispatch Inspection report /Third Party Inspection Certificates.f. Consignee copy of LR signed & stamped by Customer/Site representative for DD Itemsg. e-waybillh. Any other documents as specified in SCC. <p>Softcopies of the above documents shall be uploaded in Pradan portal https://hpep.bhel.com/mm immediately after dispatch of the material.</p>		Non Deviatable
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B	<p>Imports</p> <p>i) Bidder shall inform BHEL the readiness of material along with packing details 30 days in advance from the date of delivery. ii). Bidder shall also upload the soft copy of the dispatch documents consisting of BL / AWB, Invoice, delivery note, packing list, country of origin & Test certificates and other documents as specifically indicated in the SCC in PRADAN Portal (https://hpep.bhel.com/mm) within Five days from the B/L date for sea shipment and One day from AWB date for Air shipment and sent to email ids: mssea@bhel.in, msair@bhel.in, cmmfe@bhel.in.</p> <p>iii) AWB/BL must contain the information of BHEL GST no., and PAN no.</p> <p>iv) Air Shipments: Bidder shall ensure the following</p> <p>a) Port of discharge -- Mumbai/Chennai/Hyderabad (as indicated in SCC).</p> <p>b) Consignee shall be BHEL, Hyderabad. Material shall be air freighted through cargo mode only and not through Courier.</p> <p>c) Upon handing over the cargo to the forwarder, bidder shall ensure the acknowledgement receipt with wordings "Cargo handed over in sound condition for Air freighting". Note: Warehouse receipt will not be considered for penalty calculations.</p> <p>d) In case of CIF/ shipments, bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within one day from the date of Shipment.</p> <p>e) Following dimensions of single package may be noted.</p> <p>i). Maximum dimension of the cargo(ODC) -- 125" x 88" x 63"</p> <p>ii). Maximum weight of the cargo -- 3.5 MT. If any package dimension or weight exceeds the above set limits, it will be treated as Over Dimension Cargo (ODC) or Over Weight Cargo and bidder shall inform BHEL 30 days in advance to the delivery date to enable BHEL to finalize the freight forwarder.</p> <p>f). If package falls under Hazardous category, bidder shall communicate BHEL 30 days in advance period with document support.</p> <p>v) Sea Shipments:- bidder shall ensure the following</p> <p>a). Port of discharge -- Nhavaseva/Mumbai/Chennai.</p> <p>b). Place of Delivery / Final Destination for CIP shipments - Nhavaseva CFS / Chennai CFS.</p> <p>c). In case of FOB shipments, bidder shall handover the material to BHEL nominated forwarder and obtain the cargo receipt.</p> <p>d). If the material cannot be containerised in 20 or 40 GP containers, an advance information of 30 days prior to the delivery date shall be communicated to BHEL for necessary arrangements and finalisation of freight forwarder.</p> <p>e). For CIP shipments</p> <p>1. In case of FCL shipments, Detention free period must be 14 days.</p> <p>2. Bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within 5 days from the date of Shipment.</p> <p>3. No charges for the services rendered till place of destination will be payable by BHEL. In case liner / forwarder insist for charges, not in the scope of BHEL, the same will be adjusted from bidder account.</p> <p>4. In case of CIF shipments -- Bidder must select a forwarder/liner whose discharge port published tariff for THC and other services is available. Any charges over and above the published tariff will not be borne by BHEL or will be adjusted from the bidder's bill.</p> <p>5. bidder must insure the cargo for 110% of material value including the freight amount.</p> <p>(vi). Recovery charges for non-submission of documents: - Bidder shall submit all the required documents to BHEL as prescribed in the Purchase order and NIT.</p> <p>If BHEL incurs any charges such as Penalty, demurrage, container detention, wharfage, storage, Ground rent etc., due to non - compliance / non - submission of documents prescribed in Purchase Order/ NIT/Letter of credit, the same shall be recovered from the bidder as under:</p> <p>1. EUROPE/USA/Black Sea/ Far East/Middle East/South East sector</p> <p>A. For FOB Sea Consignments:-</p> <p>Penalty for late submission / negotiation of documents beyond 14 days shall be as under:</p>																									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Sl. no</th> <th rowspan="2">Period (From Date of Bill of Lading)</th> <th colspan="3">Recoverable Charges</th> </tr> <tr> <th>Recoverable Charges per week/ Break bulk cargo per day</th> <th colspan="2">Recoverable Charges per day per container</th> </tr> <tr> <th></th> <th></th> <th></th> <th>20FT Container</th> <th>40FT Container</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">i</td> <td style="text-align: center;">Upto 14th day</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">Nil</td> </tr> <tr> <td style="text-align: center;">ii</td> <td style="text-align: center;">15th day onward</td> <td style="text-align: center;">USD 10</td> <td style="text-align: center;">USD 110</td> <td style="text-align: center;">USD 200</td> </tr> </tbody> </table>	Sl. no	Period (From Date of Bill of Lading)	Recoverable Charges			Recoverable Charges per week/ Break bulk cargo per day	Recoverable Charges per day per container					20FT Container	40FT Container	i	Upto 14th day	Nil	Nil	Nil	ii	15th day onward	USD 10	USD 110	USD 200		
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	<p>B. For CIP Sea Shipments: - Bidder shall provide rates for detention charges after free period at the time of offer itself in case of engagement of 20FT Container and 40FT category. In case of late presentation of documents to the bank recovery will be effected from the Bidder as per the rates quoted by the Bidder at the time of offer in this regard. In case of Break bulk cargo and LCL, Demurrage charges shall be recovered at the rate of USD 1 per Ton per day and storage charges at the rate of USD 10 per week respectively shall be charged as late presentation charges.</p> <p>(vii) Description of items in invoice, packing list, BL / AWB or LR shall be same as PO item description. Bidders shall ensure that invoice shall contain PAN nos. of both bidder and BHEL along with other tax related numbers. BHEL PAN AAACB4146P and BHEL TAN HYDB00086C Any other additional documents sought by the statutory authorities, the same shall be produced by the bidder on priority basis.</p> <p>(viii) Bidder shall provide package details including number of packages, gross weight, net weight etc.</p> <p>(ix) The bidder shall provide the following documents at the time of submission of offer: a) No Business Connection in India declaration issued by the bidder as per the format specified. (or) b) (i) No Permanent Establishment in India declaration issued by the bidder as per the format specified. (ii) Tax Residence Certificate issued by the bidder's tax authorities. (iii) Form 10F, as attached in Annexure V, to be issued by the bidder. c) In case the bidder has a Business Connection in India as per Section 9 of Income Tax Act or significant economic presence in India as per rule 11 UD of IT Act or Permanent Establishment in India as per Article 5 of Double Taxation Avoidance Agreement between India and the bidder's country, the bidder shall provide a withholding tax order issued by the Indian Income Tax authority for recovery of applicable tax.</p>		
8	Delivery Schedule		
	The tendered goods shall be delivered within the period stipulated in NIT/ SCC as accepted. Inordinate delay/early supply are liable for rejection/ Hold on payment.		Non Deviatable
9	Pricing Terms Quoted price shall be inclusive of Packing & Forwarding and shall remain firm and valid during the PO. Offers with PVC will be rejected outright except in cases where specifically called for in the SCC.	Non Deviatable	execution of
10	PRICE VALIDITY : Unless otherwise specified, offer shall be valid for a period of 90 days from the date of bid (Technical bid /part-I in case of two part bid). However the prices quoted for spare parts of the Main equipment shall be kept valid for a period as specified in SCC.	Non Deviatable	opening
11	Taxes & Duties (RATE TO BE INDICATED by the bidder against the space provided)		
A	<p>Indigenous Purchase</p> <p>i) Only valid GST registered bidders will be considered for the tender. The GSTIN of the bidder should be clearly mentioned in the offer. ii) If bidder is exempted from GST registration under any provision of the GST Law, a declaration with due supporting documents should be furnished for considering the offer. iii) Bidder to quote the applicable taxes in the following manner: - Harmonized System of Nomenclature (HSN) of Goods - Services Accounting Code(SAC) of Services. - IGST/CGST/SGST/UTGST: Rate of Tax to be quoted as extra in % against the space provided iv) Bidders to ensure correct applicability of IGST/CGST/SGST/UTGST based on the Inter / Intra state movement of goods/services. v) In case Bidder has opted for GST Composition Scheme, the same may be stated explicitly both in their technical and price bids. An undertaking to the effect that any change in the status of the bidder will be intimated. vi) Any other taxes & duties not covered anywhere above may be indicated separately.</p> <p>Taxes deducted at source: - TDS as per the extant statutes shall be deducted. - In case bidder does not provide PAN details, higher rate of tax shall be deducted as per the Act. - Concessional certificates, if any, should be provided well in time for lower deduction of tax.</p>		Non Deviatable



	<p>Terms & Conditions to be complied</p> <p>1. All invoices (incl. Credit Notes, Debit Notes) to contain BHEL HPEP GSTIN ie 36AAACB4146P1ZG. Invoices submitted should be in the format as specified under GST Law. All details as mentioned in Invoice Rules including Dealer GST registration number (GSTIN), invoice number with date of issue, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST, IGST mentioned separately, HSN Code / SAC Code etc.</p> <p>2. Reimbursement of GST amount will be made only upon completion of the following:</p> <p>i. Bidder declaring such invoice in their GSTR-1 Return/ IFF</p> <p>ii. Receipt of Goods or Services and Submission of Tax invoice by BHEL</p> <p>iii. The tax invoice is reflected in the GSTR2B of BHEL, HPEP (buyer). Payment of GST will be made only if it is matching with data uploaded by the Bidder in GST portal.</p> <p>3. In case of discrepancy in the data uploaded by the bidder in the GSTN portal vis-a-vis the tax invoice or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit. The same would be available in PRADAN Portal for the bidder's information. Bidder has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims for processing of such invoices.</p> <p>4. In cases where invoice details have been uploaded by the bidder but failed to remit the GST amount to GST Department within stipulated time, then GST on the invoices in default will be recovered from the bidder along with the applicable interest.</p> <p>5. In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, such GST amount will be recoverable from bidder along with interest levied/ leviable on BHEL.</p> <p>6. Under GST regime, BHEL has to discharge GST liability on LD recovered from bidders. Hence applicable GST shall also be recoverable from bidders on LD amount. For this Tax Invoice digitally signed will be issued by BHEL indicating the respective supply invoice number. The same can be downloaded from PRADAN Portal.</p> <p>7. GST TDS deducted as per GST Act, is uploaded in GSTN portal along GSTR7. Bidders can directly download the GST TDS Certificate from the GSTN Portal.</p> <p>8. Bidders to note that Rules & Regulations pertaining to E-way bill system are to be strictly adhered to, as and when notified by Govt. authorities.</p>		
B.	<p>Foreign Purchase (Imports)</p> <p>The offered price shall be inclusive of all the Taxes and duties as applicable in country of export / country of dispatch for the quoted price.</p> <p>Taxes deducted at source:</p> <p>a. In case of goods or services subject to Income tax in India, such tax as per the extant statute shall be recovered.</p> <p>b. In case bidder does not provide necessary documents for beneficial taxation (Refer clause 7-B-(ix) a-c of ITB), the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act.</p>		Non Deviatable
12	Payment Terms: Unless otherwise specified in SCC, following shall be the terms of Payment.		
A	<p>Indigenous:</p> <p>a. Micro & Small Enterprises (MSEs) - 100% Direct EFT payment within 45 days</p> <p>b. Medium Enterprises - 100% Direct EFT payment within 60 days</p> <p>c. Non MSME Bidders - 100% direct EFT Payment within 90 Days Note</p> <p>A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of su of complete set of documents as per PO whichever is later. Payment will be made on acceptance Material.</p> <p>B. MSEs (covered under MSME Act) need to register and renew periodically and update the same BHEL</p> <p>C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery the amount actually paid whichever is less.</p> <p>D. Adherence to the above time schedule of payment is contingent upon Bidder complying with Gprovisions and availment of Input Tax Credit by BHEL before the date of payment.</p> <p>E. In case of packaged items, 10% of supply value will be retained till completion of total supplies. F. Bidders to comply with clause 11 on GST requirements</p>	<p>omission of with late or ;T</p>	
B	<p>Imports:</p> <p>i) 100% payment (less Indian Agency Commission, if any) shall be through Wire Transfer with a crperiod of 60 days - Cash Against Documents (CAD)</p> <p>ii) In case Bidder opts for Letter of Credit payment, the LC Usance period shall be 90 days with resbank charges to respective accounts and loading of 0.50%</p> <p>iii) Indian Agency commission if payable and so specified in the Purchase order shall be paid in In Rupees, considering the SBI TT selling exchange rate, as on the date of payment after successful completion of the contract.</p>	<p>edit ective lian</p>	



C	Conditions for both Inland & Foreign LC: a. LC validity period will be 90 days and for any extension, applicable charges will be to bidder's account. b. LC will be opened 7 working days after receipt of request along with successful pre dispatch inspection completion report / material readiness intimation with Material Test Certificate (MTC), prior to the scheduled / agreed delivery date.		Non Deviatable
D	Conditions for both Indigenous & Foreign Bidders: a. In case Bidders insist for lesser Credit period, loading of 0.60% for every 15 days reduction will be applicable. b. In case PBG as required is not furnished, Payment will be released deducting the BG amount, which will be paid after expiry of warranty period against submission of supplementary claim. c. Payment does not imply in any respect whatsoever a waiver of Buyer's right to performance of the Order. Buyer is entitled to set off claimable debts against claimable liabilities with the bidder by means of a setoff Note.		Non Deviatable
E	Wherever EMD is applicable, the EMD will be paid back to unsuccessful bidders within fifteen days after award of the contract. Successful bidder's EMD will be retained till submission of Performance Bank Guarantee (PBG). Tender Fee wherever applicable is not refundable. No interest shall be payable by BHEL on earnest money or security deposit or any money due to the contractor by BHEL.		Non Deviatable
13	Penalty clause:		
	In the event of delay in supply /part-supply of goods, Penalty as detailed below is leviable a. Penalty of 0.5% per week or part there of shall be levied, limited to a max of 10% (ten percent) of delayed portion value / order value (as specified in SCC). b. Penalty applicable for delay in documentation is as per SCC. c. Date Reckoned for Penalty - Indigenous Orders with delivery terms FOR HPEP: C Note date. - Indigenous Orders (Others): Date of e-waybill. - Imports: For CIP/CIF Orders: IGM date - Imports: For FOB Orders: AWB / BL date - Imports: For FCA/Ex Work Orders: Date of acknowledgement from Freight Forwarder. d. In case of Deviation to above Penalty clause, loading applicable to the extent to which not agreed by Bidder. e. Timelines as mentioned in the Annexure 1 will be considered for reckoning delivery. Penalty amount so determined along with applicable GST (for Indigenous orders) thereon shall be recovered. Imposition, recovery or settlement of this penalty shall not affect BHEL's right to performance, compensation and termination of the order.		
14	Excess materials supplied beyond tolerance limit as specified in PO will not be paid and bidder may raise credit note for the excess/unaccepted material as per GST law.		Non Deviatable
15	Rejected materials , if any, shall be collected by the bidder within 90 days of such communication to the bidder. Beyond this period the bidder forfeits their right to the materials.		Non Deviatable



16	<p>Guarantee / Warranty Period: Wherever required, and so provided in the specifications/SCC/Purchase Order, the bidder shall guarantee that the goods supplied shall comply with the specifications laid down, for materials, workmanship and performance.</p> <p>a. Guarantee period shall be 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.</p> <p>b. In case erection & commissioning is involved, guarantee period shall be 12 months from the date of commissioning.</p> <p>c. In case of equipment bought as a package which are intended to be incorporated in installations or systems, the guarantee period shall be 12 months from the date of commissioning of such equipment.</p> <p>The guarantee period shall be extended by the period during which the goods are not in compliance. If the delivery is found to be non-complaint, bidder shall replace, repair or re-execute the as requested by BHEL. If the bidder defaults on his obligations, buyer has the right to proceed to replace, repair or re-execute at the bidder's expense. A guarantee period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery.</p> <p>Loading for deviation: In case warranty specified in SCC is over and above the period mentioned in b & c above; loading will be 1% per annum for the deviation in warranty end period, on the contract value. Expected commissioning period is as indicated in SCC.</p>		Non Deviatable
17	<p>PERFORMANCE BANK GUARANTEE (PBG) (Applicable in case mentioned in SCC)</p> <p>In case enquiry specifically spells out PBG requirement, PBG is to be submitted by Bidder in requisite format as per Annexure VII. Further detailing on PBG as specified in SCC. The PBG shall be for the performance of the goods and shall remain binding notwithstanding such variations, alterations or extensions of item as may be made, give, conceded or agreed to between the Bidder and BHEL under these Terms and conditions or otherwise.</p>		Non Deviatable
<p>NOTE: Deviations (Commercial as well as Technical) from the tender specifications and conditions are generally not acceptable. However, deviation if any, shall be brought out clearly with proper justification in the offer. The deviation, if considered by BHEL, shall be loaded for comparison, while evaluating the offer. If a bidder unconditionally withdraws any deviation before price bid opening, the same shall not be loaded. Loading criteria in respect of major commercial conditions where deviations if any are accepted shall be as per clause No.18. The Bidders may specifically note the following.</p>			
18	Evaluation and Loading Criteria:		

- i) Evaluation Currency for this tender shall be "INR".
- ii) Evaluation of prices shall be done item-wise unless otherwise specified in the SCC. iii) Evaluation shall be on the basis of delivered cost, i.e. "Total Cost to BHEL" w.r.t the finalized technical scope and commercial conditions (after considering incidence of applicable taxes and duties and loading). iv) In the course of evaluation, if more than one Bidder happens to occupy L1 status, effective L1 will be decided by soliciting discounts from the respective L1 Bidders. In case more than one Bidder happens to occupy the L1 status even after soliciting discounts, the L1 Bidder shall be decided by a toss/draw of lots, in the presence of the respective L1 Bidders or their representatives. Ranking will be done accordingly. BHEL decision in such situations shall be final and binding.

INDIGENOUS

- a. Bidder shall ensure to indicate the applicable taxes against each line item, failing which the same will be considered as inclusive/NIL.
- b. Ex-works offers received (as against FOR Destination mentioned in enquiry) shall be loaded by 2% of Ex-works value.
- c. GST and any other charges quoted will be added to the base price. However, in case input credit is available for GST (SGST, CGST/IGST), the same shall be excluded for arriving at "Total Cost to BHEL"

IMPORTS

For evaluation of offers in foreign currency, exchange rate (TT selling rate of State Bank of India) as on the date of bid opening (Part-I, in case of two-part bids) shall be considered. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.

In case of foreign Bidders, the quoted CIP price shall be loaded by the following factors to arrive at "Total Cost to BHEL":

- Import duty as applicable on the date of Part-I bid opening.

- Loading will be as per the table below

	Ex Works	FOB/FC A	CIF/CFR	CIP
Foreign Inland freight and insurance	2%			
Marine freight and marine insurance	3%	3%		
Destination Port handling charges	0.50%	0.50%	0.50%	
clearing charges & inland freight and insurance	2%	2%	2%	2%

COMMON LOADING FOR IMPORTS & INDIGENOUS that will be added for arriving the "Total Cost to BHEL"

A. Loading on Deviated Penalty clause shall be 10% or to the extent to which the bidder has opted for deviation.

B. Loading for payment terms as per clause 12 of ITB

C. Loading for deviation in Warranty & PBG as per clause 16,17.

- 19** Procurement directly from the manufacturers/ suppliers shall be preferred. However, no agent shall be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both from the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.

- 20** **RIGHT OF REJECTION /NON- PLACEMENT OF PO:** BHEL reserves the right to accept or reject any or all bid/s in full or part without assigning any reason whatsoever.

- 21** **INTEGRITY PACT**
Bidders shall have to enter into Integrity Pact with BHEL as per Annexure VI - for Tender value of rupees two crores and above and shall be signed by the authorized signatory along with the offer, failing which Bidder's offer will be rejected.

- 22** **Public Procurement**

- A** **Make in India**
For this Procurement, the local content to categorize a bidder as a Class I local bidder / Class II local bidder / Non-Local bidder and purchase preference to Class I local bidder, is as defined in Public Procurement (Preference to Make in India) order No P45021/2/2017-PP(BE-II) dated 04-06-2020 issued by DPIIT as amended from time to time.
Proforma for self-certification for minimum local content and auditor's certification is given in Annexure III.

- B** Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority. GOI website <https://www.mea.gov.in/> to be referred for latest details of competent authority and exemptions . Proforma for self-certification for compliance is given in Annexure IV.

- C** **Startups:**
For Start-ups duly registered with DPIIT (Copy of certificate to be provided), condition of prior turnover and prior experience in Public Procurement may be relaxed subject to meeting of Quality and Technical Specifications. Startups are exempt from paying EMD.

- 23** **Benefits earmarked for Purchase from Micro & Small Enterprises (MSEs) – Indigenous Purchase**



A	All Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy are exempt from Paying EMD. NSIC/UDYAM registered bidders shall submit NSIC/UDYAM Certificate along with bid documents. Date to be reckoned for determining the deemed validity will be the last date of Technical bid submission. Non- submission of such document will lead to consideration of their bid, at par with other bidders and MSE status of such bidders shall be shifted to Non- MSE Category till the bidder submits these documents.
B	In tender, MSEs quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply at least 25% of total tendered value. In case of more than one such MSE, the supply shall be shared proportionately. Out of these 25% minimum 3% shall be earmarked for MSEs owned by women and 6.25% for MSEs owned by SC/STs who submit the relevant documents.
C	If an enterprise falling under MSME category as defined in the Act, graduates to a higher category from its original category or beyond the purview of the Act, it shall continue to avail all non-tax benefits of its original category notified by the Ministry of Micro, Small and Medium Enterprise for a period of three years from the date of such graduation to the higher category.
D	BHEL HPEP is registered with RXIL (TReDS) platform. MSME bidders are requested to get registered with RXIL (TReDS) platform to avail the facility as per the GOI guidelines.
24	Inspection Measuring and Test Equipment (IMTE) used by the Bidder/ Contractor or sub-contractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.
25	ISO-9001, ISO14001 & OHSMS 45001 shall be complied.
26	If BHEL registered supplier is not quoting against this NIT, supplier shall send regret letter positively with valid reasons for not participating. Repeated lack of response on the part of supplier may lead to deletion of such registered supplier from BHEL's approved supplier's list as per BHEL SEARP Guidelines.
27	Risk Purchase clause: In case bidder fails/delays to supply whole or part of the ordered items or supplies defective items or fails to fulfil any other terms and conditions given in Purchase Order/Contract, BHEL has the right to terminate the order/contract or withdraw balance scope of work/supply and make the purchase of such material / services from elsewhere at the risk and cost of the defaulted bidder. The bidder is liable for the additional expenditure / difference in Cost, if any, including consequential losses which BHEL may sustain by reason of risk purchase in addition to the applicable LD as per the order/contract. Non-performance of contract attracts penal provisions in line with BHEL guidelines for Suspension of Business Dealings (SBD).
28	Any other terms and conditions of the bidder attached / referred against the tender enquiry will not be considered.
29	All drawings, patterns and tools supplied by BHEL or made at BHEL's expense are BHEL's property. These cannot be used or referred to any other party and must be used only in the execution of BHEL's orders.
30	Any amount payable by the bidder under any of the conditions of this contract shall be liable to be adjusted against any amount payable to the bidder under any other work / contract awarded by BHEL HPEP or any other BHEL Units. This is without prejudice to any other action as may be deemed fit by BHEL.
31	The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, will be rejected. The list of firms banned by BHEL is available on BHEL web site: www.bhel.com
32	Ordering and confirmation of order The bidder shall send the order acceptance within one week from the date of LOI/Purchase order or such other period as specified/agreed by the Buyer. Buyer reserves the right to revoke the order placed if the order confirmation differs from the original order placed. Buyer shall be legally bound, only if agreed for any deviation explicitly in writing. The acceptance of deliverables or supplies by Buyer as well as payments made in this regard shall not imply acceptance of any deviations. The Purchase order will be deemed to have been accepted if no communication to the contrary is received within one week (or the time limit as specified /agreed by the Buyer) from the date of P.O. Buyer, is at liberty to send signed P.O. through electronic media such as e-mail and the receipt of which shall be treated as receipt of order.
33	Execution The whole contract is to be executed in the most workman like manner, substantial and approved as per the contracted terms.
34	Progress Report The bidder shall render such report as to the progress of work and in such form as may be called for by the Buyer from time to time. The submission and acceptance of such reports shall not prejudice the rights of the buyer in any manner. Bidder shall communicate to BHEL immediately, the change of address, ownership, contact person(s), the mobile numbers and e-mail of the dealing person concerned. Milestones shall be periodically updated by bidder through PRADAN Portal (https://hpep.bhel.com/mm/). Non updation will adversely affect service rating of bidder performance.
35	Non-disclosure Obligations

	<p>Drawings, technical documents or other technical information received by one party shall not without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are confidential and binding only to the extent that they are by reference expressly included in the contract.</p> <p>The bidder shall, as per agreed date/s but not later than the date of delivery, provide free of charge any information and/or drawings which are necessary to permit the Buyer to erect, commission, operate and maintain the product. Such information and drawings shall be supplied as specified in technical specification.</p> <p>All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the contract shall continue to be the property of the submitting party.</p> <p>The bidder shall provide Buyer with all information pertaining to the delivery in so far as it could be of importance to Buyer. The bidder shall not reveal confidential information to its own employees not involved with the tender/contract and its execution and delivery or to third parties, unless Buyer has agreed to this in writing beforehand. The bidder shall not be entitled to use the Buyer's name in advertisements and other commercial publications including website without prior written permission from Buyer.</p> <p>In the event of violation of the confidentiality as agreed, BHEL will take legal action as deemed fit. Non-disclosure agreement to be entered as per Annexure- II wherever applicable.</p>
36	Inspection and Testing
A	The goods and stores shall be manufactured by approved quality system and each part/component may be inspected and tested by the Buyer prior to shipment and shall comply with relevant requirements. Buyer has the right to inspect at any stage during manufacture/ delivery.
B	<p>Buyer or his authorized representative shall be entitled at all reasonable times during execution to inspect, examine and test at the bidder's premises the material and workmanship of all stores to be supplied under the contract, and if the part of the stores are being manufactured at other premises, the bidder shall obtain for buyer or his authorized representative permission to inspect, examine and test as if the said stores are being manufactured at the bidder's premises. Such inspection, examination and testing, if made shall not release the bidder from any obligation under the contract.</p> <p>For indigenous bidders all costs related to first inspection request shall be borne by the buyer and the cost of subsequent inspections due to non-readiness of material/rework/ rejections shall be borne by the bidder. In case of imports all inspection charges including third party inspections if any shall be borne by the bidder. The cost of inspection staff/third party specified by the Buyer shall be borne by bidder unless otherwise specifically agreed. If the contract provides for tests on the premises of the bidder or any of his sub-contractor/s, bidder shall be responsible to provide such assistance, labor, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by the bidder unless otherwise specifically agreed in the contract. The Bidder shall give the authorized representative of the buyer reasonable notice in writing of the date on and the place at which any stores will be ready for inspection/ testing as provided in the Contract. Annexure – I, may strictly be complied with for the time lines. Any delay in submission of the documents by the bidder will not alter the delivery date.</p>
37	Quality and Condition of the Deliverables
	The bidder shall be responsible for compliance with applicable technical, safety, quality, environmental requirements and other regulations in relation to products, packaging and raw and ancillary materials.
38	Packaging and Dispatch
	<p>The bidder shall package the deliverables safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by sea/air/rail/road to its destination suitably protected against loss, damage, corrosion in transit and the effect or tropical salt laden atmosphere. The packages shall be provided with fixtures/hooks and sling marks as may be required for easy and safe handling by mechanical means. Special packaging conditions/ environmental conditions as defined in the NIT shall be fully complied.</p> <p>Each package must be marked with consignee name, address, P.O. number, Package Number, gross weight & net weight, dimensions (Lx B x H) and bidder's name. The packing shall allow for easy removal and checking of goods on receipt and comply with carrier's conditions of packing or established trade practices. Packing list for goods inside each package with P.O. item No. & quantity must also be fixed securely outside the box to indicate the contents. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols/instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.</p>
39	Contract variations; Increase or decrease in the scope of supply
	<p>Buyer may vary the contracted scope during execution due to exigencies of project requirement.</p> <p>If the bidder is of the opinion that the variation has an effect on the agreed price or delivery period, Buyer shall be informed of this immediately in writing along with technical details, and in the event of additional work, submit a quotation with regards to the price and period involved, as well as the effect this additional work will have on the other work to be performed by the bidder. Wherever unit rates are available in the contract, the same shall be applied to such additional work. The bidder shall not perform additional work before buyer has issued written instructions/amendment to the purchase order to that effect. The work which the bidder should have or could have anticipated in terms of delivering the service (s) and functionality (ies) as described in this agreement should be executed by the bidder without any price implication.</p> <p>In case of no change in the scope / technical specifications, bidder shall endeavor to keep the material ready and intimate the same to BHEL within the contractual delivery date, failing which, the delay if any will be attributed to supplier, and any upward price variation thereof for delivery at a later date is not admissible.</p>
40	Rejected/Short shipments/ warranty/guarantee replacements
	In case of any short shipment during initial supply which is subsequently dispatched by the bidder or any guarantee / warranty replacements shall be dispatched on "DDP-Delivered duty paid BHEL stores" basis for imported items and "FOR-BHEL Stores/designated destination" basis for indigenous items.
41	Export Administration Regulations

	If a delivery includes such technology and / or supply that is subjected to the export regulations the bidder shall obtain due permissions, approvals, license etc.
42	Force Majeure
	<p>The bidder shall not be considered in default if delay occurs due to causes beyond their control such as Acts of God, Natural calamities, Fire, Frost, Flood, Civil War, civil commotion, riot, Government Restrictions.</p> <p>Only those causes that have duration of more than seven days shall be considered cause of force majeure. Notification to this effect duly certified by local chamber of commerce/statutory authorities with supporting documents shall be given by the bidder to BHEL by registered letter/courier service immediately without loss of time.</p> <p>In the event of delay due to such causes the delivery schedule shall be extended for a length of time equal to the period of Force Majeure or at the option of BHEL the order may be cancelled. Such cancellation would be without any liability whatsoever on the part of BHEL.</p> <p>In the event of such cancellation the bidder shall refund any amount advanced or paid to the bidder by BHEL and deliver back any material issued to him by BHEL and release facilities, if any provided by BHEL.</p>
43	Non-waiver of Defaults
	If any individual provision of the contract is invalid, the other provisions shall not be affected.
44	Settlement of Disputes
	<p>Except as otherwise specifically provided in the contract, all disputes concerning questions of the facts arising under the contract, shall be decided by the Buyer, subject to written appeal by the bidder to the buyer, whose decision shall be final.</p> <p>Any disputes of differences shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration</p> <p>The bidder shall continue to perform the contract, pending settlement of disputes(s).</p>
45	Conciliation clause
	<p>CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.</p> <p>The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure in http://www.bhel.com/index.php/story_details?story=2454 . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB</p>
46	ARBITRATION (WITH SOLE ARBITRATOR)
	<p>Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, penalty deduction, validity or execution of the Contract; time extension, or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration . Sole arbitrator to be appointed by Head of the Unit - BHEL , HPEP .</p> <p>The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.</p> <p>Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.</p> <p>The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.</p> <p>Subject to the arbitration in terms of clause 45, the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.</p> <p>Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.</p>
	ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT
	<p>In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE 0M No 4(1)/2013DPE(GM/FTS 1835 dated 22-05-2018</p>
47	Applicable Laws and jurisdiction of Courts
	This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.
48	BHEL-Fraud prevention policy shall be adhered to.
	<p>The Bidder along with its associate/ Collaborators/ Sub-contractors/ sub-bidders/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention policy displayed on BHEL Website http://www.bhel.com and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.</p> <p>List of nodal officers is hosted on BHEL Hyderabad website https://hpep.bhel.com/.</p>
49	Suspected Cartel Formation



<p>The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case , the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies / guidelines .</p>
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Note: Purchase officer has to fill Annexure-I while sending enquiry

(To be executed on Non- Judicial Stamp Paper for an appropriate value.

To be stamped as an agreement)

(For Suppliers on Unit's / Division's PMD) **ANNEXURE-II**

Framework Confidentiality Agreement Cum Undertaking

This Agreement made on this the _____ day of (month) _____ 20 ____ ("Effective Date") by and between M/s. BHARAT HEAVY ELECTRICALS LIMITED, having registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India), acting through its _____ Unit (hereinafter may be referred to as "BHEL" or "the company").

And

M/s. _____ (address) _____
represented by authorized representative Sri _____ (herein after referred to as the "Supplier").

The supplier and the company may, unless the context otherwise requires, hereinafter be collectively referred to as "Parties" or singly as the "Party".

RECITALS

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL / its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with contract(s) (as defined hereunder) placed or to be placed upon the supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as under:

1. Definitions:

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the contract entered into with a supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
 - B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.
 - C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
 - D. **“Technical Information”** includes Drawings, and / or Product Standards and / or Specifications and / or Corporate / Plant Specifications and / or Technological Process Sheets and / or Technical Data Sheets and / or Jigs & Fixtures and / or Pattern & Dies and / or Special Gauges and / or Tools etc. Belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Suppliers.
 - E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the supplier under or in connection with a contract.
 - F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (Whether in terms of effectiveness or in terms of efficiency or both) of the product and / or the service to be provided by the Supplier under a Contract.
2. This Agreement shall come into force / deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the supplier; whichever is earlier.
3. **Agreement deemed to be incorporated in each contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contract has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.
4. **Ownership:**
- 4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.
 - 4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of BHEL or that of the concerned entity from whom BHEL has

obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the supplier any license or right of use of such patent, copyright or design or any other intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the contract and / or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

- 4.3 Neither party is obligated by or under this Agreement to purchase from or provide to the other party any service or product and that any such purchase / sale of any product and / or service by one party to the other party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.
- 4.4 The Supplier is / has been made well aware and acknowledges that the Technical Information being / which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.
- 4.5 The supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors /suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the supplier or its employees or sub-contractors / suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.
- 4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights / title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings / documents or other materials connected with such

Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvements in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the supplier.

5. Use and Non – Disclosure:

- 5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.
- 5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.
- 5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and / or service to any third party, without the prior written consent of the Company.
- 5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is / was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.
- 5.5 This Supplier undertakes and agrees not to make copies or extracts of and not to disclose to other any or all of the Technical Information in its possession, except as follows:

- (a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and nondisclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.
- (b) With the prior written consent of Company, the supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
- (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the supplier intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

6. Exceptions:

The Obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was / is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

7. The Obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of _____ years from the date when the complete Technical Information has been returned in portions on different dates, the period of _____ years will be reckoned from the date when the last portion of the Technical Information has

been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of _____ years.

8. Warranties & Undertakings:

- a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.
- b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material / documents belonging to him / it or to any other third party.
- c) The Supplier further undertakes that he / it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and / or equipment of the Company, made available to him / it, and undertakes that he / it shall hold the same as a trustee, in capacity of custodian thereof and use / utilise the same solely for the purpose of executing the contract awarded by the Company.
- d) The Supplier further undertakes that he / it shall return all the equipment and / or Technical Information as far as practicable in the same condition in which the same was made available to him / it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope of work or contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and / or Technical Information / improvement thereof. In case any such equipment and / or Technical Information or thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or improvement thereto shall continue to be governed by this Agreement.
- e) The Supplier undertakes to indemnify the Company for all the direct, indirect and / or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and / or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then

existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the forgoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 9 (f) hereinabove, the Company shall have a right to withhold, recovery and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him / it by any department / office / unit/ division of the said Company.

10. Arbitration & Conciliation:

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, penalty deduction, validity or execution of the Contract; time extension, or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration. Sole arbitrator to be appointed by Head of the Unit - BHEL, HPEP.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause.

The seat of arbitration shall be Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.

The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.

Subject to the arbitration in terms of clause 46 of ITB (clause 27 of ATC GeM), the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a

professional manner except where the Contract has been terminated by either Party in terms of this Contract.

ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No 4(1)/2013DPE(GM/FTS 1835 dated 22-05-2018

CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure in http://www.bhel.com/index.php/story_details?story=2454 . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB

11. Governing Law & Jurisdiction:

This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.

SIGNATURE WITNESSES

Name:

Address:

2

Name:

Address:

Annexure V

(On Company Letter Head)

FORM NO. 10F

[See sub-rule (1) of rule 21AB]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961

I..... son/daughter of Mr in the capacity of.....
(Designation) do provide the following information, relevant to the previous year **202122**
in case of for the purposes of sub-section (5) of section 90/section
90A:-

Sl.No.	Nature of information	Details
(i)	Status (individual; company, firm etc.) of the assessee	Company
(ii)	Permanent Account Number (PAN) of the assessee if allotted	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)

(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident
(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	<u>2022-23</u>
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable

I have obtained a certificate to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of..... (name of country or specified territory outside India)

Signature:.....

Name:.....

Address:.....

Email ID:.....

Contact Number.....

Permanent Account Number:.....

Verification

I..... do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated. Verified today the..... day of.....

In case the M/s Bharat Heavy Electricals Limited, HPEP, Ramachandrapuram, Hyderabad is declared as an assessee in default due to any misstatement or incorrect declaration, we indemnify M/s Bharat Heavy Electricals Limited from any ensuing consequences thereunder.

Signature of the person providing the information

Place:.....