



Bharat Heavy Electricals Limited
(A Govt. of India Undertaking)

Piping Centre, 80, G. N. Chetty Road, CHENNAI – 600 017
Phone : 91 (044) 28161965, e-mail: poongkodi@bhel.in

REF: ENQ NO:4011900012

DT: 06.12.2019

Sub: Request For Quotation (RFQ) for supply of Rolled & Welded pipes confirming to IS 3589 Gr.410 for PATRATU & Yadadri Project sites - reg.

Ref: Enquiry No: 4011900012 dt 06.12.2019

BHEL/Piping Centre invites RFQ's for supply of Rolled & Welded pipes confirming to IS 3589 Gr.410. The offers should be submitted in the E-procurement portal. The offer will be opened at **14.30 hrs** on the **due date 21.12.2019**. Late tenders are liable to be rejected. Please find the following documents enclosed for you to submit offer in two parts

1. Tender documents – Pre-Qualification Requirement (PQR) with all supporting documents and Techno Commercial Terms and Conditions (T&C)
2. Tech. delivery condition for pipes TDG: 07: 08 Dt. 05.12.19
3. Pipe Drawings -3-80-468-35326-R03 & 3-80-463-35663-R01
4. Edge Preparation Drawing 3-80-300-19825 Rev 04 (Style D)
5. Spider and Lifting Lug arrangement Drawing 3-80-468-33334 Rev 00
6. Painting scheme ref PATRATU QP NO: 7381: QPC: 12 Rev. 00 dt 21.08.2018 & YADADRI QP NO: 7295: QPC: 12 Rev. 01 dt. 11.09.2018
7. Unpriced bid Format
8. Integrity Pact
9. Price bid Format in e-procurement portal
10. Information on Reverse Auction
11. Cancellation / Termination of contract, Default / Breach of contract and Risk Purchase
12. Make in India Format

Please indicate enquiry no and date and due date in all correspondences. This is only a request for quotation and not an order.

All supporting documents called for in PQR and T&C should be enclosed in Part-I of the tender.

Yoon
06/12/19

Ms. Poongkodi.V
Senior Engineer / Purchase
BHEL, Piping Centre
80, G.N.Road, T.Nagar, Chennai –600 017
Phone – 044-28161965. Email: poongkodi@bhel.in

For any clarifications on the Enquiry you may also contact
Ms. Priya Balaji / MPL, Purchase & Stores co-ordination Phone –044-28161244
Email: pb@bhel.in

Sl No.	PQR Description	Documents to be submitted	Bidder Compliance with supporting documents (YES / NO)	Remarks
1	Bidder shall be manufacturer OR authorized agent of the manufacturer. In case of agent, such agent shall not represent two manufacturers quoting for this tender.	1)Company Catalogue 2)Any Proof Certificate for being a manufacturer or Fabricator viz Certificate of Registration / Factory license etc 3) In case of Agent, authorization letter from Manufacturer/Fabricator (Bids from traders/stockists are not acceptable.)		
2	Bidder shall have necessary facilities for manufacturing, testing, handling, space for storage & coating. Requisite personnel to fabricate the tendered items as per the Drawing and Technical requirements. Capacity to manufacture the tendered items in terms of Volume (MT)	List of manufacturing, testing & handling facilities, storage area available and list of personnel at registered factory address. Bidder to mention the manufacturing process: Spiral or LS Bidder shall furnish the monthly/annual capacity details.		
3	Bidder shall have prior experience in supply of Rolled & Welded pipes conforming to IS 3589 Gr.410 using IS 2062 plates or IS 10748 coils / IS3589 pipes / fabrication of similar items made of steel involving rolling and Welding. Minimum size of experience shall be dia 200mm and above for Package 1 and dia 450 mm and above for Packages 2, 3 & 4. Supply experience being furnished shall not be prior to 3 years from the date of the Enquiry.	1. Copy of PO, MTC's & invoice / Supply completion certificate copies containing Customer Name, Size & Quantity, Month and year of their supplies shall be furnished. 2. In case of Foreign bidder, supporting MTC's to experience cited shall be witnessed / reviewed by any reputed Third Party Inspection agency like Lloyds, BV, TUV etc. In lieu of the above, proof of at least one export supply made (outside domestic market preferably Europe or USA or India) shall be furnished.		
4	<u>Financial details of the Bidder</u> <u>A. If Quoting for any/all the Packages 1 & 2:</u> Indigenous bidder should have made a turnover of at least Rs. 15 lakhs for anyone of last 3 audited Financial Year (FY 2018-19, 2017-18 or 2016-17) In case of foreign bidder, financial turnover shall be an equivalent of Rs. 15 lakhs in their regional currency. <u>B. If Quoting for any/all the Packages 3 & 4:</u> Indigenous bidder should have made a turnover of at least Rs. 1 Crore for anyone of last 3 audited Financial Year (FY 2018-19, 2017-18 or 2016-17) In case of foreign bidder, financial turnover shall be an equivalent of Rs. 1 Crore in their regional currency. For foreign bidder, exchange rate as on the date of Part I opening will be considered for arriving equivalent turn over in INR.	1. Indigenous bidders shall submit audited Company Financial statement-Balance Sheet and P&L statement for any of the past 3 years (FY 2018-19, 2017-18 or 2016-17) meeting financial turnover criteria. However, statement of FY 2018-19 shall also be submitted. 2. In case of foreign bidder, shall submit latest report from a reputed third party business rating agency like D&B, Credit reform etc.,		

**** Supporting documents to be enclosed without fail.**

Note –

1.Bids fulfilling the above criteria will be considered for further techno-commercial evaluation.

2.For foreign Bidders, it will be mandatory to furnish D&B/Credit Reform Report during submission of SRF.

3.For Startups and MSE bidders, Annual Financial Turnover criteria (Sl. No: 5 above) is relaxed to Rs. 7.5 Lakhs for 4A & Rs. 50 Lakhs for 4B given above, during any of the Financial year in the past 3 years. Relaxation is subject to bidders meeting technical and quality criteria. Bidders proposing to avail relaxation as above need to submit necessary document proof along with Pre-Qualification bid.

a) Startups - Certificate of Recognition by Department of Industrial Policy & Promotion

b) MSE - UAM No. (Printed copy of UAM No) for MSE registration along with CA certificate

4.Bidder to submit all supporting documents in English language. If documents submitted by bidder are in a language other than English, a self-attested English translated document shall also be submitted.

5.Indigenous vendors referred to BIFR or Firms having strictures / hold by any other Government agencies will not be considered.

SI No	BHEL requirement	Bidder's Response	Remarks
A	Quotation no		
B	Quotation date		
C	Mill name (if applicable)		
D	Applicable GST % shall be indicated		
1	SCOPE OF SUPPLY i) Manufacture and supply of items as mentioned in unpriced bid for carbon steel pipes, Rolled & Welded pipes conforming to IS 3589 Gr.410 meeting BHEL drawing & technical requirements for PATRATU & Yadadri Projects. ii) To be delivered at RESPECTIVE project sites.		
2	LIST OF ITEMS As per UN-PRICED BID annexed.		
3A	TECHNICAL REQUIREMENTS PIPE REQUIREMENT i) Rolled & Welded pipes confirming to IS 3589 Gr.410 shall be manufactured from IS 2062 or equivalent plates / IS 10748 coils through Long seam/Spiral welded process and BHEL Technical Delivery Condition TDC: TDG:07 Rev. 08.dt 05.12.19. - Bidder to mention the form of Raw material used for pipe manufacture ii) Pipe shall be supplied as per Drawing No. 3-80-468-35326-R03 & 3-80-463-35663-R01 iii) Edge preparation shall be as per Drawing No 3-80-300-19825 Rev. 04 (STYLE D) iv) The Length of each Pipe shall be as mentioned in unpriced bid. v) Spider Arrangement and Lifting Lug arrangement shall be as per Drawing No. 3-80-468-33334 Rev. 00. This arrangement is applicable for pipe dia >1000 mm only. vi) Total Quantity Tolerance shall be as mentioned in unpriced bid. vii) Typical Quality plan available with vendor shall be submitted. (Preferably customer approved) viii) WPS/PQR to be submitted ix) Bidder shall submit detailed process flow chart from raw material stage including manufacturing of pipe, Edge Preparation, coating & testing x) Bidders to submit valid ISO 9001 certificate. xi) Deviation if any shall be clearly indicated in a separate sheet. UNDISCLOSED DEVIATIONS ARE NOT ACCEPTABLE.		
3B	COATING REQUIREMENT Painting Scheme Reference for PATRATU QP NO: 7381: QPC: 12 Rev. 00 dt. 21.08.2018 Painting Scheme Reference for YADADRI QP NO: 7295: QPC: 12 Rev. 01 dt. 11.09.2018 Painting shall be done as mentioned against RESPECTIVE Project Painting Schemes.		
4	QUALITY PLAN After placement of Purchase order vendor shall submit Quality plan for fabrication of pipe, meeting the agreed tender requirements for review/approval immediately within 10 days. Manufacturing shall commence subjected to approval of above QP by BHEL.		
5	INSPECTION Indigenous suppliers BHEL/ BHEL approved third Party inspection agency. Inspection call shall be raised by the Bidder as per the inspection stages indicated in approved Quality Plan. Inspection call shall be given at least 7 days in advance to the required inspection for planning. Inspection call letter should contain all details pertaining to type of inspection, manufacturing schedule, inspection dates etc. Bidder to ensure the readiness of material on the date of visit by inspector. Foreign suppliers Inspection shall be through renowned agencies such as TUV, Lloyds, SGS & BV. If any different agency is proposed by the bidder; the name of the inspection agency shall be indicated in the offer. BHEL shall consider for acceptance or otherwise. Inspection charges shall be included in the quoted unit prices.		
6	TESTING AND TEST CERTIFICATES NDE TESTING As per clause 6.1/6.2 of TDC: TDG:07 Rev. 08 (as applicable). Bidders to indicate the applicable TDG clause to be followed for testing. MARKING & IDENTIFICATION Pipes shall be marked & identified with details as indicated in Cl 8 & 9 of TDG: 07: Rev 08. Test certificates as called for in the TDC & approved QP shall be sent to Purchase / Piping Centre BHEL Chennai immediately after the shipment / dispatch of items and not through Bank. Inspection documents shall be furnished for each batch of dispatch / consignment. Soft copy in CD format of the all the test certificates shall also be submitted. Year of Code for the standards shall be latest and the specific year is to be mentioned in the Manufacturer's test certificates.		

SI No	BHEL requirement	Bidder's Response	Remarks
7	<u>Two-part bid :</u> <u>Part-I TECHNICAL - CUM – COMMERCIAL PART (Un-priced):-</u> This part of the bid shall contain following technical and commercial points only (except price portion) 1. Bidder to submit duly filled and signed 'Pre-Qualification Criteria' along with all supporting documents. 2. Duly filled, signed and stamped BHEL TDC: TDG:07 Rev. 08, Painting scheme, Edge preparation, Spider and Lifting Lug arrangement drawing, Pipe Drawings and all supporting documents. 3. Copy of Unpriced bid (without price) clearly indicating quoted/not quoted against each line item. 4. Integrity Pact - To be filled and submitted with Part-1 without fail. The above documents form part of this tender document and bidder shall ensure that they have received all these along with tender and confirm.		
8A	<u>PART II PRICE PART:</u> <u>Bidders to note that Ordering will be made on Package-wise L1 ONLY. (ie for respective Packages 1 to 4)</u> <u>Bidders are requested not to quote for part of the package. Otherwise, their bid will be liable for rejection.</u> <u>INDIGENOUS BIDDERS:</u> The unit price shall be quoted on FOR Respective project site basis (BASE PRICE and other components strictly as per price template attached) The price shall include all testing, inspection, packing and freight & insurance charges. PLEASE DO NOT QUOTE ON EX–WORKS BASIS. Price quoted by the Supplier item wise with break up as per the price bid template shall be furnished. a. Base Price shall include Cost of Raw Material plus conversion cost per Meter of pipe including Edge Preparation, providing Spider Arrangement, lifting lug arrangement, Testing and Packing. b. External Painting& Internal Coating charges shall be quoted extra as per the respective painting scheme attached, as indicated in the price format. c. Percentage of applicable GST shall be clearly indicated. d. Freight and transit insurance charges to be quoted extra. Ordering shall be on Free on Road, FOR – RESPECTIVE Project Site.		
8B	<u>FOREIGN BIDDERS:</u> The unit price shall be quoted on DAP RESPECTIVE project site basis. Delivered at Place(DAP) – RESPECTIVE Project site , India Tender shall be evaluated for price competitiveness on FOR RESPECTIVE project site (total cost to BHEL) basis. Currency to be mentioned. Country of origin and Port to be indicated. • The price shall include all testing, inspection, packing and freight & insurance charges. PLEASE DO NOT QUOTE ON EX–WORKS BASIS. Price quoted by the Supplier item wise with break up as per the price bid template shall be furnished. a. Base Price shall include Cost of Raw Material plus conversion cost per Meter of pipe including Edge Preparation, providing Spider Arrangement, lifting lug arrangement, Testing and Packing. b. External Painting& Internal Coating charges shall be quoted extra as per the respective painting scheme attached, as indicated in the price format. c. Freight charges should be quoted extra. Ordering shall be on DAP RESPECTIVE basis.		
9	Quantity mentioned against each item may vary. In such case, bidder shall be informed about the variation in quantity and subsequently bidder shall be asked to submit price impact if any in % of quoted price before opening of price bid.		
10	Tender shall be processed by E-Procurement Mode For E – Procurement , Please click this link to take you to the procurement site - https://bhel.abcpurchase.com, you will be required to log in with user code and password allotted to you. (contact Abcpurchase @ https://bhel.abcpurchase.com/EPROC/contactus).		

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11	<u>EVALUATION OF BIDS</u> Price Bids of only the PQR and Techno-commercially qualified bidders will only be opened. For Indigenous bidders, L-1 shall be arrived based on the total net cash outflow to BHEL (inclusive of all cost elements for the entire scope, taxes and duties). For Foreign bidders, following shall be considered a. Customs Duty - Pls note that the comparison of offers would be done as per the applicable Duty structure on the date of opening of Price Bid. b. Exchange Rate – For import bidders, the exchange rate on the date of technical bid opening, as per TT selling rate of SBI will be taken for evaluation. BHEL reserves the right to finalize the prices through Reverse Auction or sealed envelope bid opening and the same shall be intimated to Bidders after technical scrutiny of the offers. Information on Reverse Auction enclosed. In case of RA, Ranking of bidders shall be reckoned based on the final rates quoted by individual bidders at the end of Reverse Auction which includes both online sealed bid and dynamic bidding. Elimination of H1 will happen after Online sealed bid of RA.		
12	<u>TERMS OF DELIVERY</u> 1) Indigenous Bidders FOR RESPECTIVE PROJECT Site basis:- Dispatch of items shall be made to RESPECTIVE project Site, based on Delivery instructions by BHEL-PC. 2) Foreign Bidders DAP RESPECTIVE project site basis:- As per the DAP, the vendors' scope is till the project site and expenditures incurred up till project site will be to vendor's account except the customs duty which will be paid by BHEL. Custom clearance at Chennai Port will also be in vendor's scope. Crannage, wharfage, inter-carting, charges related to shipping liner, demurrage / detention if any and customs incidental charges and other miscellaneous if any, shall be to the vendor's account.		
13	<u>DELIVERY SCHEDULE:-</u> 4 months from LOI / PO date Supplies are to be completed within 4 months from LOI/PO date. As delivery will affect our project requirements, kindly quote for the above delivery period only. Bidder has to strictly confirm to the delivery terms. Bids not complying with the delivery period are liable for rejection.		
14	<u>LD CLAUSE: -</u> If the bidder fails to deliver the item within the period specified in the contract the purchaser shall deduct Liquidated Damages, a sum equivalent to 0.5% of the price for each week of delay up to a maximum of 10% of the price of delayed/undelivered portion. For the purpose of LD, the delivery date will be reckoned as follows: 1. For foreign/Imported Bidders: DAP RESPECTIVE project site basis: LR date for transporting imported pipes from Chennai port to project site will be taken as delivery date. 2. For Indigenous sources: LR date will be taken as the delivery date.		
15	<u>LD Calculation & Loading:</u> LD will be calculated for the number of days delayed from the PO delivery date. % LD per day and LD value calculation is indicated below- - No of days delayed = LR date - PO delivery date % LD per day = (No of days delayed) * (0.5 / 7) * contractual LD agreed [% LD will be rounded to nearest two decimals] - LD value = % LD calculated above * Value of the delayed supply If deviating with respect to BHEL's standard LD clause, loading will be applicable to the extent to which the bidder has not agreed (for eg. if bidder agrees for maximum LD of 6%, then the remaining portion ie. 4% shall be loaded on the quoted rate during price evaluating of the offer).		
16	<u>VALIDITY OF THE OFFER:</u> The quotation shall be valid at least for a period of 90 days from the date of technical bid opening / 60 days from the date of reverse auction. Offer with lesser validity may not be considered.		
17	<u>GUARANTEE:</u> Bidders shall guarantee the supplies for a period of 24 months from the date of dispatch of materials or 18 months from the date of their commissioning whichever is earlier. To this effect a Guarantee certificate should be sent along with the dispatch documents in the event an order is placed on you. Material shall be guaranteed against manufacturing defects or faulty workmanship for a period of 24 months from the date of receipt of pipes with coating at project site. Any defect noticed during this period shall be repaired/replaced free of cost, to the satisfaction of BHEL and the End User. No deviation in this regard shall be accepted. Pipe Bidder shall cover the guarantee for both pipe and coating.		

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18	<u>CANCELLATION / TERMINATION OF CONTRACT, DEFAULT / BREACH OF CONTRACT AND RISK PURCHASE:</u> By Submitting the bid, Bidder explicitly accepts to BHEL's requirement, as per Standard Risk and Cost clause document Enclosed herewith.		
19A	<u>TERMS OF PAYMENT:</u> No advance payment shall be made by BHEL. <u>For indigenous Bidders:</u> 100% NEFT payment after 60 days of receipt & acceptance: Payment shall be made against presentation of following documents to our Finance Department. However, a copy of Invoice and LR shall be sent to Purchase department immediately after the dispatch is effected. a) Commercial Invoice in triplicate b) Delivery Challan in triplicate whichever is applicable c) Guarantee certificate. d) Lorry Way Bill (Original + Two copies) e) Site Ack. Lorry Way Bill (Original + Two Copies) f) Quality documents (as per approved QP/PO) Soft copy of Invoice and LR should be sent immediately after dispatch by e-mail to Purchase. Hard copy should be sent subsequently within two weeks. Payment shall be processed only after receipt of site acknowledgement. However preference in payment shall be given to MSE bidders as per MSMED Act 2006.		
19B	<u>For Foreign Bidders:</u> 1) 100% through CAD after 60 days from the date of receipt of documents at BHEL bank. Respective bank charges to respective account. (or) 2) 100 % Usance LC with 60 days credit, the loading will be considered @ 1.5% on the offered Value. Due date for payment will be considered from the date of receipt and acceptance of documents at BHEL bank. LC validity period will be 90 days and for any extension, applicable charges will be to supplier's account. Payment shall be made against presentation of following documents. a) Commercial Invoice b) Packing List c) Country of Origin d) Bill of Lading e) Quality documents (as per approved QP/PO) a) Site Ack. Lorry Way Bill However payment shall be made only after receipt of site acknowledgement LRs. LC will be opened one month prior to material readiness. Hence supplier shall intimate the material readiness accordingly for opening of LC. Kindly choose one of the above given two options (1) or (2)		
20	<u>QUALITY DOCUMENTS</u> One original + two copies of Quality Documents, as called for in the quality plan/Purchase order shall be sent to Purchase / Piping centre BHEL Chennai immediately after the shipment / despatch of Items. All the quality documents are to be submitted in soft copy (in CD format) apart from the hard copy.		

SI No	BHEL requirement	Bidder's Response	Remarks									
21	<u>INTEGRITY PACT</u> – Format being sent. Your bid will be considered only after signing and submitting the Integrity pact. a) IP is a tool to ensure that activities and transactions between the Company and its Bidders / Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL <table><thead><tr><th>SI No</th><th>IEM Address</th><th>Phone & Email</th></tr></thead><tbody><tr><td>1</td><td>Shri Arun Chandra Verma, IPS (Retd.) Flat No. C -1204, C Tower, Amrapali, Platinum Complex, Sector 119, Noida (U.P.)</td><td>acverma1@gmail.com</td></tr><tr><td>2</td><td>Shri Virendra Bahadur Singh, IPS (Retd.), H. No. B-5/64, Vineet Khand, Gomti Nagar, Lucknow - 226010</td><td>vbsinghips@gmail.com</td></tr></tbody></table> b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with Techno-Commercial bid (Part-I, in case of two / three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification. c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only. <u>Note:</u> No routine correspondence shall be addressed to the IEM (phone / post / email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification / issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below.	SI No	IEM Address	Phone & Email	1	Shri Arun Chandra Verma, IPS (Retd.) Flat No. C -1204, C Tower, Amrapali, Platinum Complex, Sector 119, Noida (U.P.)	acverma1@gmail.com	2	Shri Virendra Bahadur Singh, IPS (Retd.), H. No. B-5/64, Vineet Khand, Gomti Nagar, Lucknow - 226010	vbsinghips@gmail.com		
SI No	IEM Address	Phone & Email										
1	Shri Arun Chandra Verma, IPS (Retd.) Flat No. C -1204, C Tower, Amrapali, Platinum Complex, Sector 119, Noida (U.P.)	acverma1@gmail.com										
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22	<u>PURCHASE PREFERENCE FOR MAKE IN INDIA</u> - For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract / PO / WO against this NIT. - In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable. Document certifying local content and penal action in case of wrong declaration by suppliers. - The local supplier at the time of tender, bidding or solicitation shall be required to provide self-certification on their letter head certified by the authorized signatory of the bidder that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made. - In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content. - False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law. - A supplier who has been debarred by any procuring entity for violation of the provisions of the Public Procurement (Preference to Make in India), Order 2017 shall not be eligible for preference for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, the debarment takes effect prospectively from the date of uploading on the website(s) of The Department of Expenditure, GOI in such a manner that ongoing procurements are not disrupted. - The onus of submission of appropriately certified documents lies with the bidder and BHEL shall not have any liability to verify the contents and will not be responsible for the same. However, in case BHEL has any reason to doubt the authenticity of the Local Content, BHEL reserves the right to obtain the complete back up calculations before award of contract failing which the bid shall be rejected.											

SI No	BHEL requirement	Bidder's Response	Remarks
23	<u>PURCHASE PREFERENCE FOR MSE SUPPLIERS</u> o Purchase preference for local MSE's quoting in the tender has been increased from 20% to 25%. o Within the 25% reservation for local MSE's, 3% reservation will be applicable for women owned MSE's and 6.25% reservation will be applicable for MSE's owned by SC / ST. o If the quantity is not-divisible**, L1 rate shall be counter offered to eligible MSE supplier who fall within price band of L1 + 15%. On acceptance, entire quantity shall be ordered on MSE supplier. ** - For this enquiry, L1 shall be arrived on Package basis. Items being a package, the quantity is considered non-divisible. Hence, L1 rate shall be counter offered to eligible MSE supplier who fall within price band of L1 + 15%. On acceptance, entire quantity shall be ordered on MSE supplier. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested / notarized copies (by a Gazetted officer) of anyone of the following documents along with copy of UAM certificate- • Valid EM II certificate having deemed validity (5 years from the date of issue of acknowledgement in EM II). • Valid NSIC certificate. • Copy of CA certificate (in BHEL's standard format) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of Two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for the Enquiry if any deficiency in the above required documents are not submitted before price bid opening. However, credentials of all MSE suppliers will be verified before considering the intended benefits for MSE suppliers at the time of tender evaluation.		
24	This is to bring in your attention that information regarding 'Guidelines for Suspension of Business Dealings with Suppliers/ Contractors' is now available on www.bhel.com on "supplier registration page". Bidders are requested to go through these guidelines.		
25	<u>FRAUD PREVENTION POLICY</u> The Bidder along with their associates / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website at www.bhel.com/pdf/BHEL_Fraud_Prevention_Policy.pdf and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.		
26	One agent cannot represent two or more suppliers or quote on their behalf in a particular tender. If so found at any stage, BHEL PC Chennai is likely to cancel Enquiries / POs to such suppliers. Further, such Indian Agent is likely to be de-listed (Black listed for business from BHEL)		
27	<u>GENERAL: -</u> i. The PO copy with all details will be given to successful bidders in soft mode also. ii. Acknowledgement for receipt of PO shall be sent within one week from the date of receipt. iii. BHEL reserves the right to cancel this tender without assigning any reasons what so ever. iv. Deviation taken after placement of order will not be accepted (Both technical as well as on delivery) v. Suppliers to analyze in detail, at the time of submission of offer with reference to our "delivery" requirement of item and confirm compliance. vi. Lowest prices received against BHEL tenders does not mean order will be placed on that Supplier. BHEL reserves the right not to consider the same. vii. BHEL reserves the right to negotiate or re-float the tender opened if L1 price /or other details are not acceptable to them viii. BHEL reserves the right to order on more than one Bidder at the lowest acceptable price to BHEL. ix. Any other terms or conditions mentioned in your offer other than the above mentioned formats will not be evaluated and will be considered null & void. Hence your offer shall contain ONLY the above mentioned formats. x. Bids not accepting to above conditions will be liable for rejection. xi. For verification of data submitted towards evaluation of bidder's capability, BHEL may decide to visit the bidder(s) works. Any fact found deviating from submitted data shall make the bidder liable to be disqualified. xii. In the event of newly approved vendor becoming the successful bidder, manufacturing process of first lot of Pipes from raw material stage to end product with coating shall be witnessed by BHEL inspection. Balance PO quantity can be taken up for manufacture only after inspection and clearance of the first lot by BHEL. BHEL reserves the right to cancel the order if the trial quantity is not meeting our requirement.		



Bharat Heavy Electricals Limited, Piping Centre, Chennai

**Technical Delivery Conditions for IS 3589 Pipes /
Rolled & Welded Pipes using IS2062 plates or IS 10748
coils, confirming to IS 3589.**

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Rev : 08
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Records of Revn:07 :- Applicable Pipe Size indicated in para 1.3; *Para 2.0, 8.3 & 9.1 revised.
Para 4.4, 5.0 & 10.0 added further clauses re-numbered;*

Records of Revn:08 :- Modified based on Internal Discussion regarding BIS license
requirement dt 28.11.2019.

1.0 SCOPE

- 1.1 This Technical Delivery Conditions specify the requirements in addition to IS:3589 for electrically welded (ERW \ SAW) steel pipes.
- 1.2 The pipes are intended for water, air services (under Non-IBR Piping system only).
- 1.3 The pipes shall conform to the size, grade and quantity as specified in the purchase order.

Applicability: Pipe outside Diameter from 168.30mm to 2540.00mm.

2.0 RAW MATERIAL

Raw material (IS 2062 plates / IS 10748 coils) used for pipe shall meet the requirements as per IS: 3589 Grade Fe 410 MPa including Chemical (Ladle analysis) & Mechanical test requirements.

3.0 DIMENSIONAL TOLERANCES

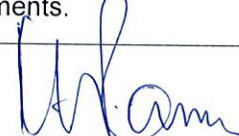
- 3.1 The tolerances limits are:
- a) OD:- Upto NB 1600 mm: ± 4 mm; Above NB 1600 mm: ± 6 mm
 - b) Thickness:- Upto 14mm : +1.3mm / -0.8mm; Above 14 mm : +1.4mm / - 0.8mm.
 - c) Ovality (Difference between major and minor inside diameter): 0.5% maximum
 - d) Squareness of ends: The ends of pipe section shall not vary by more than 3mm at any point from a true plane perpendicular to the axis of the pipe and passing through the center of the pipe at the end.
 - e) Length and quantity tolerance as per P.O.
- 3.2 Other tolerances shall be as per IS: 3589

4.0 MANUFACTURING

- 4.1 The pipe shall be of longitudinally welded or spirally welded as indicated in the Tender/P.O.
- 4.2 The ends shall be edge prepared as indicated in the Tender/P.O.
- 4.3 Circumferential seams shall be minimum 1500 mm apart from each other and from ends.
- 4.4 For longitudinal SAW pipes the offset between any two subsequent longitudinal joints shall be more than 90deg.
- 4.5 All pipes shall be completely finished and free from surface, sub surface defects such as pits, cracks, weld spatters & laminations etc..

5.0 CHEMICAL & MECHANICAL TEST

- 5.1 **Product Analysis:-** Shall be done for One sample per heat per size as per IS3589. Chemical values shall meet the IS3589 table - 2 & 3 requirements.
- 5.2 **Mechanical Tests:-**
- (a) **Tensile test for ERW / SAW Pipes:** Shall be done for One sample per heat per size as per IS3589. Values shall meet the IS3589 table - 4 requirements.

 J Nanthini Dy.Mgr/QA	 D Sandra Priya Dy.Mgr/QA	 K. Rajitha AGM/MM	 C Saravanan SDGM/Engg	 K V Ramani AGM/Engg & Quality
Prepared By	Reviewed By			Approved By



(b) **Flattening test for ERW Pipes:** Shall be done for One sample per heat per size as per IS3589 and shall confirm to para 9.2.1 of IS3589.

(c) **Guided Bend test for SAW Pipes:** Shall be done for One sample per heat per size as per IS3589 and shall confirm to para 9.3.2 & 9.3.3 of IS3589.

6.0 NDE

6.1 For Pipe dia less than 1000mm:- 100 % Hydro test on each pipe + Radiography test for 100mm weld length at both the ends for 10% of the pipes.

6.2 For Pipe dia 1000 mm & above :- The NDT for each pipe shall be done by any one of the following options. The vendor shall indicate their choice in the offer.

a) 100 % Hydro test + Radiography test for 100mm weld length on both the ends of each pipe.

b) 100 % Ultrasonic test + 10 % Radiography test on weld length (including all T-joints and 100mm weld length at both the ends) for each pipe.

c) 100 % Radiography test on complete weld length of each pipe.

6.3 The Ultrasonic test / Radiography test shall be carried out as per ASME Sec-V and shall be accepted as per ASME B31.1 Cl:136.4.6 / Cl:136.4.5.

7.0 INSPECTION

7.1 All pipes shall be inspected by the vendor prior to BHEL / Customers' Inspection. BHEL or BHEL authorized inspector / Customer will select the pipes at random and carryout the inspection. The necessary Material Despatch Clearance Certificate is to be obtained by the vendor prior to the despatch of material.

8.0 PAINTING AND PACKING

8.1 The pipes if dispatched to BHEL Stores shall be coated with resin type translucent rust preventive on the outside unless otherwise specified in the Tender/P.O. Pipes of diameter above NB 450 mm, shall be coated inside also.

8.2 The pipes if dispatched to project site directly shall be coated outside & inside as indicated in Tender/P.O.

8.3 **Internal Coating:-** In case of any special coating like PU, Glass Flake, 100% Solid Epoxy etc.. the vendor shall use BHEL approved make/coating materials. And also vendor shall submit Inspection & Testing Plan (ITP) and Procedure for internal coating for BHEL approval.

8.4 Coating shall not be applied for cutback length (as specified in Tender/ PO) from each end to facilitate site joints.

8.5 Spiders are to be provided on both ends of the pipes as per the drawing indicated in the Tender / Purchase Order.

9.0 MARKING

9.1 The following details are to be marked on the pipes for identification.

1) Supplier's emblem/code 2) Size & Specification 3) Material code

4) Pipe number 5) Inspector's seal 6) Work Order-DU details

 J Nanthini Dy.Mgr/QA	 D Sandra Priya Dy.Mgr/QA	 K. Rajitha AGM/MM	 C Saravanan SDGM/Engg	 K V Ramani AGM/Engg & Quality
Prepared By	Reviewed By			Approved By



Bharat Heavy Electricals Limited, Piping Centre, Chennai

**Technical Delivery Conditions for IS 3589 Pipes /
Rolled & Welded Pipes using IS2062 plates or IS 10748
coils, confirming to IS 3589.**

Doc: TDG : 07
Rev : 08
Dt : 05.12.2019
Page 3 of 3

	Pipes dispatched to BHEL Stores	Pipes dispatched to BHEL Project Site
Paint Stencilling	Details 1 to 6	Details 1 to 6
Hard Punch	Details 1, 2, & 5	Details 1, 4, 5 & 6

- 9.2 For the pipe dia 1000mm and above marking shall be done on internal surface in the uncoated area (i.e) within 150mm from pipe ends. The hard punching shall be done at one end and paint stencilling at other end. In case of pipes of dia less than 1000mm the marking shall be done on outside surface.

- 10.0 **QUALITY PLAN:-** Vendor shall submit QAP for BHEL approval before commencement of production.

11.0 **CERTIFICATES**

- 11.1 Three original test certificates typed in English shall be submitted along with the inspection report.

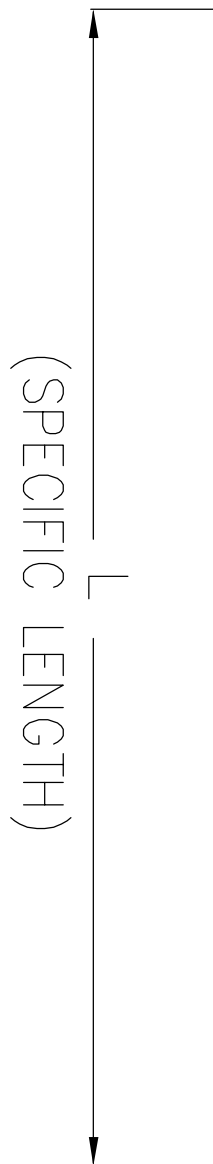
- 11.2 The test certificate shall furnish the following details.

- BHEL P.O Number & Amendment Number(if any)
- BHEL P.O. Serial Number
- Test Certificate number.
- Specification, grade, size, quantity
- Heat number of plate (or pipe number with traceability to heat number)
- Chemical composition and Mechanical properties
- Hydrostatic test, UT, RT reports as applicable.
- Dimensional report
- Painting details

 J Nanthini Dy.Mgr/QA	 D Sandra Priya Dy.Mgr/QA	 K. Rajitha AGM/MM	 C Saravanan SDGM/Engg	 K V Ramani AGM/Engg & Quality
Prepared By	Reviewed By			Approved By

3-80-463-35663

DRAWING NO.



NOTES: -

- 01 ALL PIPES ARE TO BE SUPPLIED WITH EDGE PREPARATION AS PER DRG NO. 3-80-300-19825. FOR EP STYLE & d1 VALUE (WELD END DIAMETER) REFER THE TABLE.INSIDE BEVEL IS REQUIRED, ONLY IF D1 VALUE IS HIGHER THAN INSIDE DIAMETER.
- 02 FOR SHOP PAINTING/COATING DETAILS , REFER CUSTOMER APPROVED PAINTING SCHEDULE & QUALITY PLAN FOR THE PROJECT.
- 03 FOR PIPE DIAMETER > 1000mm , SPIDER ARRANGEMENT HAS TO BE PROVIDED AT THE ENDS AFTER EDGE PREPARATION , AS PER DRG. NO. 3-80-468-33334. FOR PIPE DIAMETER < 1000mm , SPIDER ARRANGEMENT IS NOT REQUIRED.
- 04 PIPES SHALL BE MANUFACTURED AND SUPPLIED AS PER APPLICABLE TDG (LATEST REV)
05. FOR PAINTING & COATING DETAILS, REFER APPLICABLE PAINTING SCHEME FOR OG/UG
06. PIPES ARE TO BE SUPPLIED WITH EDGE PREPARATION.
07. PIPES ARE TO BE SUPPLIED WITH LIFTING LUG ARRANGEMENT FOR FOR PIPE DIA > 1000mm
08. REFER DRG NO-3-80-468-33334 FOR LIFTING LUG ARRANGEMENT
09. WEIGHT INDICATED IS BARE PIPE ONLY. IT DOESNOT INCLUDE WT OF SPIDER & LIFTING LUG

SL NO	PGMA	DU NO	PIPE DESCRIPTION	QTY (M)	SPECIFIC LENGTH(M)	MATERIAL CODE	MATERIAL SPEC	EDGE PREPARATION			TOLERANCE
								DRG NO	STYLE	d1	
01	80-463	010	PIPE OD273.1X6(OVER GROUND)	2915	10 TO 14	159385380000	IS3589-410MPA	3-80-300-19825	D	261	+/- 2M
02	80-463	017	PIPE OD2235X18(OVER GROUND)	8	NA	159385970000	IS3589-410MPA	3-80-300-19825	D	2199	NA
03	80-463	018	PIPE OD2235X18(OVER GROUND)	28	10 TO 14	159385970000	IS3589-410MPA	3-80-300-19825	D	2199	+ 2M
04	80-463	019	PIPE OD1829X14(OVER GROUND)	960	10 TO 14	159386020002	IS3589-410MPA	3-80-300-19825	D	1801	+/- 2M
05	80-463	020	PIPE OD1422X12(OVER GROUND)	180	10 TO 14	159387080001	IS3589-410MPA	3-80-300-19825	D	1397	+/- 2M
06	80-463	021	PIPE OD914X10(OVER GROUND)	3410	10 TO 14	159385830000	IS3589-410MPA	3-80-300-19825	D	894	+/- 2M
07	80-463	022	PIPE OD914X10(OVER GROUND)	80	10 TO 14	159385830000	IS3589-410MPA	3-80-300-19825	D	894	+/- 2M
08	80-463	025	PIPE OD711X8(OVER GROUND)	32	10 TO 14	159385340001	IS3589-410MPA	3-80-300-19825	D	697	+/- 2M
09	80-463	095	PIPE OD711X8(OVER GROUND)	77	10 TO 14	159385340001	IS3589-410MPA	3-80-300-19825	D	697	+/- 2M
10	80-463	096	PIPE OD711X8(OVER GROUND)	475	10 TO 14	159385340001	IS3589-410MPA	3-80-300-19825	D	697	+/- 2M

REV 02	DATE	ALTERED	REV 01	DATE	ALTERED	RPS	DEPT.	GRADE OF UN TOL. DIM		SCALE N.T.S	WEIGHT (kg).	NAME OF ORIGINAL ORGANISATION	ITEM No.
ZONE		APPROVED	ZONE	15.05.19	APPROVED	PKN	CODE	C/M/F					
				NOTES ADDED			TITLE				CARD CODE	DRAWING No.	REV
							PRODUCTION NOTES FOR LP PIPING SYSTEM				U 01	3-80-463-35663	01

92353-894-08-3

ON GINWARD

MATERIAL SPECIFICATION :- IS:3589-410MPA
(SPIRAL/LS WELD)

SL. No.	DU NO.	PGMA	PIPE DESCRIPTION	QTY (in Meters)	SPECIFIC LENGTH	MATL. CODE		EDGE PREPARATION AS PER DRG NO. 3-80-300-19825	
						MATL. SPEC.		STYLE	Ø d1
01	009	80-468	PIPE OD 813 x 8 (UNDER GROUND PIPING)	2150 MR	7MR TO 12.5MR	15 938 537 0001 IS3589-410MPA		STYLE-D	797
02	010	80-468	PIPE OD 813 x 8 (OVER GROUND PIPING)	80 MR	7MR TO 12.5MR	15 938 537 0001 IS3589-410MPA		STYLE-D	797
03	032	80-468	PIPE OD 914 x 10 (OVER GROUND PIPING)	38 MR	7MR TO 12.5MR	15 938 583 0000 IS3589-410MPA		STYLE-D	894
04	033	80-468	PIPE OD 914 x 10 (UNDER GROUND PIPING)	150 MR	7MR TO 12.5MR	15 938 583 0000 IS3589-410MPA		STYLE-D	894
05				03	02				
06									

NOTES:-

- 01 ALL PIPES ARE TO BE SUPPLIED WITH EDGE PREPARATION AS PER DRG NO. 3-80-300-19825. FOR EP STYLE & d1 VALUE (WELD END DIAMETER) REFER THE TABLE.
- 02 TOLARANCE ON TOTAL LENGTH OF PIPE FOR EACH SERIAL NO IS ± 2 METERS .
- 03 FOR SHOP PAINTING/COATING DETAILS , REFER CUSTOMER APPROVED PAINTING SCHEDULE & QUALITY PLAN FOR THE PROJECT.
- 04 FOR PIPE DIAMETER > 1000mm , SPIDER ARRANGEMENT HAS TO BE PROVIDED AT THE ENDS AFTER EDGE PREPARATION , AS PER DRG. NO. 4-80-999-93078. FOR PIPE DIAMETER < 1000mm , SPIDER ARRANGEMENT IS NOT REQUIRED.

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
03	19.03.19	APPROVED	02	17.01.19	APPROVED	01	08.01.19	APPROVED
ZONE	DU NO.32 DELETED AND DU NO.33 QTY REVISED.		ZONE	SPECIFIC LENGTH & NOTE NO. 02 REVISED BASED ON DISCUSSION WITH MPL &MM MAIL DATED 17.01.19.		ZONE	NOTE NO.05 DELETED.	
ALL REV IS INDICATED AS 03			ALL REV IS INDICATED AS 02			ALL REV IS INDICATED AS 01		

</									

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NOTES:—

01. APPLICABLE FOR P91/P92 ZERO ARM PIPEBEND WELDED WITH P91/P92 STRAIGHT PIPE

02. FOR OD MISMATCH, REFER FIGURE—Xa

03. REFER STYLE—D₁ FOR THICKNESS <14.2mm (FOR ALL OD/ID)

04. REFER STYLE—PL

i) WHEN THICKNESS IS ≥ 14.2 mm AND < 20 mm FOR ALL OD/ID.

ii) WHEN THICKNESS ≥ 20 mm AND OD < 219.1 mm.

05. $\alpha = 6^\circ$ FOR WALL THICKNESS ≥ 20 mm AND ≤ 30 mm

06. $\alpha = 10^\circ$ FOR WALL THICKNESS > 30 mm



01. THE MINIMUM THICKNESS AT WELD END SHALL NOT BE LESS THAN
 - a) 0.875 TIMES t NOM. FOR OD PIPES.
 - b) t MIN. FOR ID CONTROLLED PIPES.
02. t NOM & t MIN SHALL BE AS PER SPECIFIED PIPE SIZE.
03. SHARP CORNERS SHALL BE ROUNDED OFF WHEREEVER 'r' IS INDICATED.

NOTES FOR WELDING:

01. WELD REINFORCEMENT TO BE FLUSH GROUND AND MERGED WITH PARENT METAL WITHOUT ANY UNEVENNESS.

NOTES: -

01. APPLICABLE FOR P91/P92 ZERO ARM PIPEBEND WELDED WITH P91/P92 STRAIGHT PIPE

02. FOR OD MISMATCH, REFER FIGURE-Xa

03. REFER STYLE-D1 FOR THICKNESS <14.2mm (FOR ALL OD/ID)

FIGURE - Xc
(STRAIGHT END)

FOR OD PIPES ϕ d1
+0.5
-1.0

FOR ID
CONTROLLED PIPES ϕ d1
+0.0
-1.6

3-3.5

R8

50°

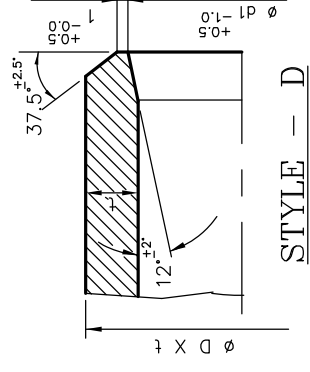
2t

ϕ D x t

FIGURE - Xc
(STRAIGHT END) Δ_{63}

[illegible]TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

NOTES: -
01. USE WHEN $t < 14.2$ mm.



STYLE – D

STANDARD

REV	DATE	DESCRIPTION
04	07/12/16	SRIT 2 OF 2 IS ADDED IN FIG. 3X, P47, FIG. 2 IN 3X AND STYLE-P
ZONE		
REV	DATE	DESCRIPTION
03	10-04-13	FIG. 3X AND FIG. 2X ADDED IN FIG. 2, NOTE 01 MODIFIED IN FIG. 3X, P47, FIG. 2, P48 MATERIAL ADDED
ZONE		
REV	DATE	DESCRIPTION
02	10-04-13	FIG. 3X, NOTE 04 ADDED, GENERAL NOTES 03 ADDED IN FIG. 3X, RMV 03 MISMATCH IS REMOVED
ZONE		
REV	DATE	DESCRIPTION
01	11/05/04	PROJECT NAME REMOVED AND STANDARD INCORPORATED IN TITLE BLOCK
ZONE		

DEPT.	GRADE OF UN TOL. DIM			SCALE	WEIGHT (Kg).	NAME OF ORIGINAL ORGANISATION	ITEM No.
CODE	C/M/F						
TITLE		EDGE PREPARATION DETAILS					
		DRAWING No.		CARD CODE		REV	
		3-80-300-19825		U 01		04	
		SHEET 1 OF 2					

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3-80-468-33334

DRAWING No

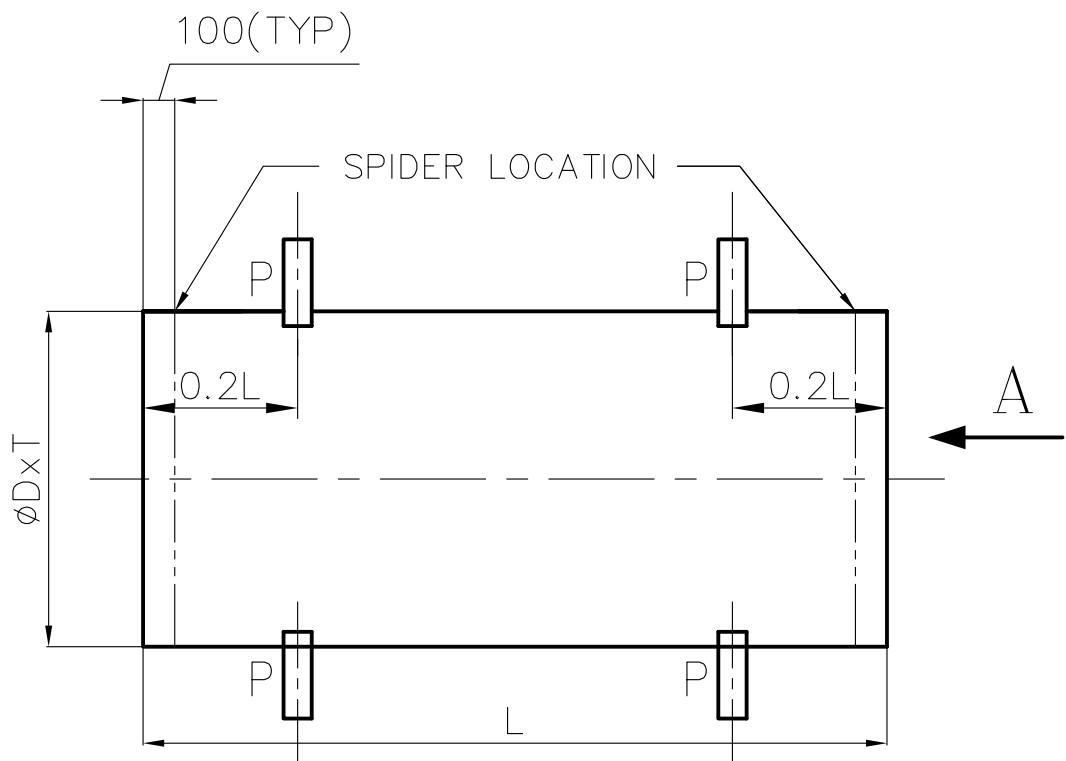
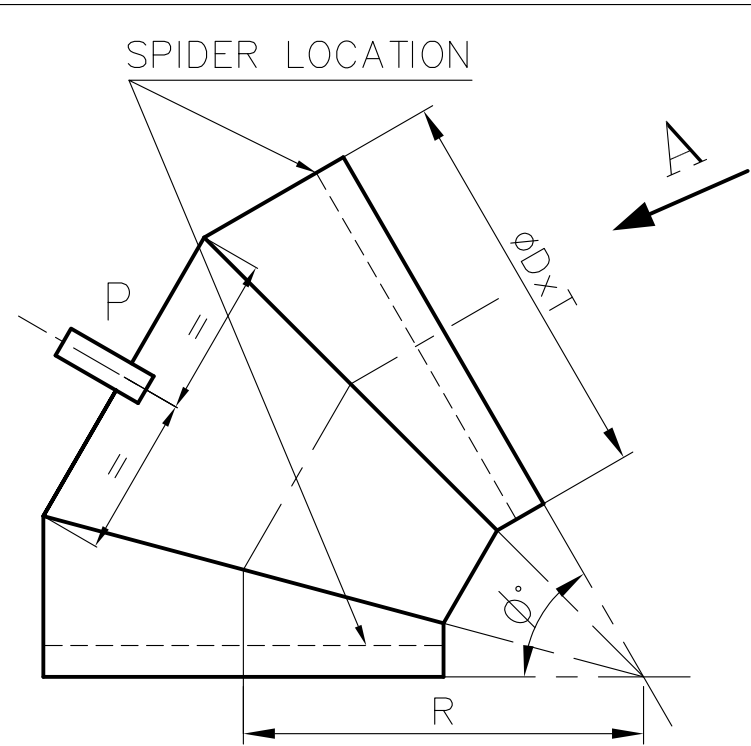
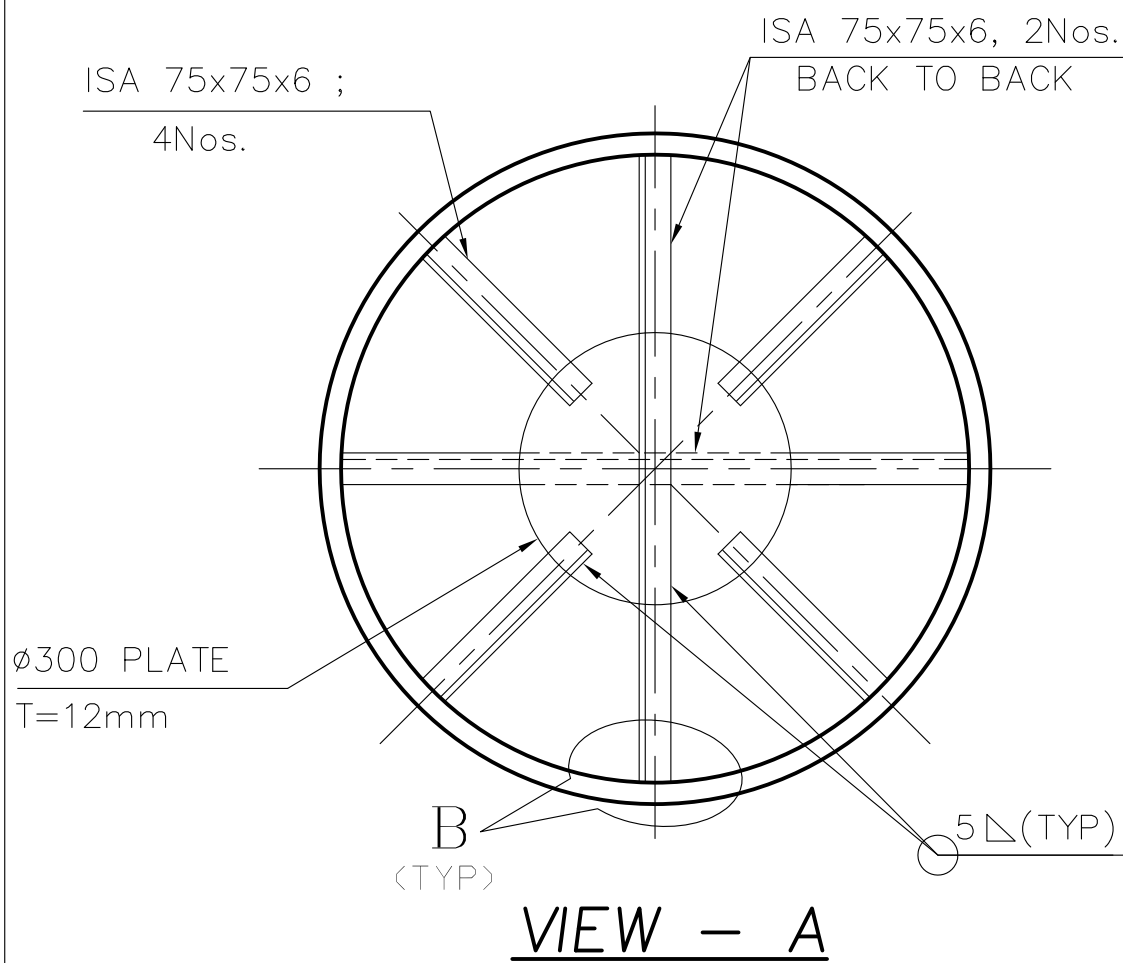


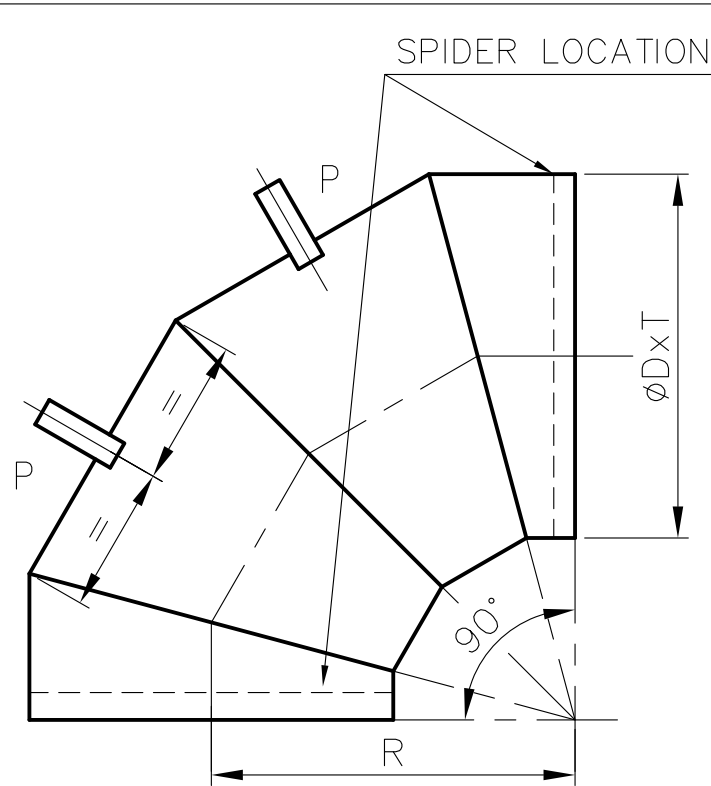
PLATE FORMED PIPE

SPIDER 2 LOCATIONS
LIFTING LUG 2 LOCATIONS



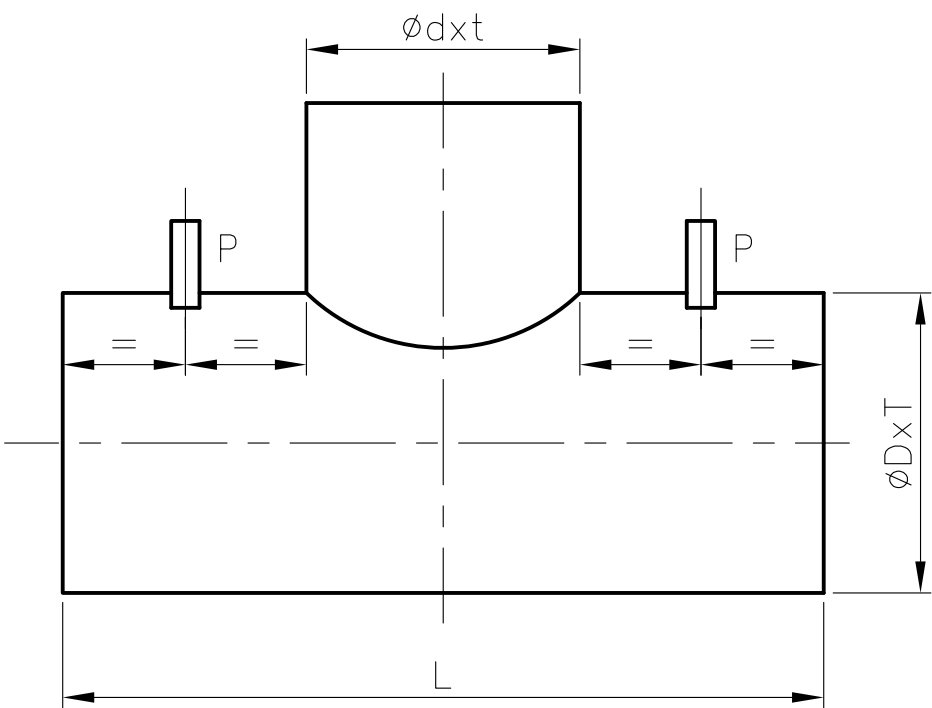
45°/60° MITRE BEND

SPIDER 2 LOCATIONS
LIFTING LUG 1 LOCATION

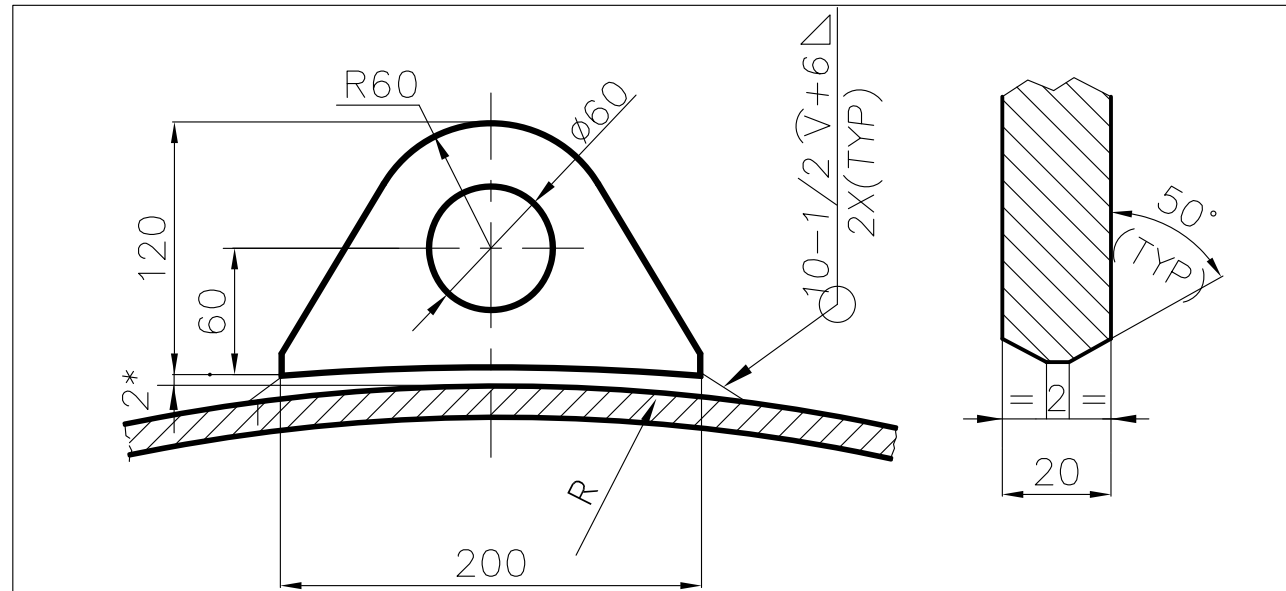


90° MITRE BEND

SPIDER 2 LOCATIONS
LIFTING LUG 2 LOCATIONS

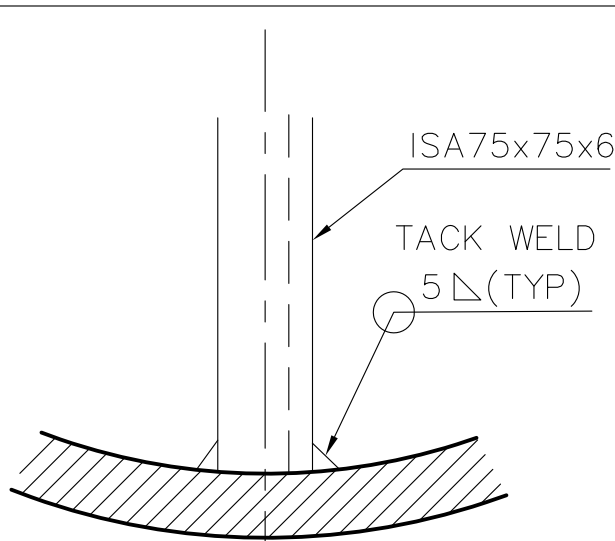


UN EQUAL TEE/EQUAL TEE



DETAIL - P

* LIFTING LUG SHALL BE CUT TO SUIT THE OUTER SURFACE OF THE MAIN PIPE SUCH THAT A UNIFORM GAP OF 2MM IS MAINTAINED THROUGHOUT



DETAIL - B

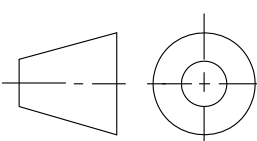
NOTES: -

1. SPIDER ARRANGEMENT IS MEANT FOR TRANSPORTATION AND STORAGE PURPOSE ONLY. TO BE CUT AND REMOVED AT SITE AT THE TIME OF ERECTION.
2. SPIDER/LIFTING LUG SHALL BE PAINTED WITH YELLOW COLOUR.
3. MATERIAL SPECIFICATION FOR PLATE IS IS2062.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

DEPT.

GRADE OF
UN TOL. DIM



SCALE

NTS

WEIGHT (Kg).

REF TO ASSY / OLD DRG

ITEM
No.

TITLE

SPIDER AND LIFTING
LUG ARRANGEMENT

CARD
CODE

U 01

DRAWING No.

3-80-468-33334

REV

00

BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE, CHENNAI- 17 QUALITY ASSURANCE & CONTROL DEPT.		PAINTING SCHEME FOR LP PIPING (CW / ACW / ECW / Plant water, Air Piping, etc.,) PROJECT NAME : - YADADRI TPS - 5X800 MW BHEL CUSTOMER Nos : 7295,7296,7297,7298,7299,7300&7306						QPNo: 7295:QPC:12 REV.NO: 01 Dt : 11.09.2018				
Sl. NO	PGMA / Description	Surface Preparation & Surface Profile	Primer coat			Intermediate coat			Finish coat		REMARKS	
			Primer	No of coats	Paint	No of coats	Shade	Paint	No of coats	Shade		Total DFT Microns (Min.)
1	2	3	4	5	6	7	8	9	10	11	12	13
1	(a) Internal Surface - CW Pipe (for pipe - dia - 1000 mm and above)	Blast Cleaning SSPC SP-10 SA 2½ (Refer Note 1)	Two part Epoxy Primer	1 (50 Microns Min. per coat)	Two part Polyamide cured solvent less Epoxy (100% solids)				300-350 Microns Min.		350-400 Microns	Refer Note 1&2
	(b) Holiday test (Refer Note 3)	Holiday testing by low voltage (75 Volts Min.) wet sponge Holiday detector or by High voltage (Voltage per micron of DFT is as recommended by Paint Manufacturer subjected to minimum of 5V / Micron). Holiday test Equipment to be calibrated before testing.										
2	External Surface of CW -Buried Piping / Encased in concrete (Temporary Protection for transportation from works to site).	SSPC-SP3 / Power Tool Cleaning	Red Oxide Zinc Phosphate (Alkyd base to IS 12744)	1 (30 Microns per coat)	Further protection to be done by BHEL Erection Group as per Contract requirement (Rapping coating conforming to AWWA-C-203/IS15337)							
3	External Surface (over ground piping) of CW/ACW. (For all diameters)	Blast Cleaning SSPC SP-10 SA 2½	Epoxy based Zinc Phosphate to IS: 13238	1 (50 Microns per coat)	Epoxy Based MIO Pigmented Intermediate Coat.	2 (DFT=75 Micron Min Per coat)		Epoxy based finish paint to IS: 14209 + Aliphatic Acrylic PU Paint to IS: 13213	1 (25 microns per coat) + 1 (25 microns per coat)		250	
4	External Surface of ECW, Plant water (For all diameters)	Blast Cleaning SSPC SP-10 SA 2½	Epoxy based Zinc Phosphate to IS: 13238	1 (50 Microns per coat)	Epoxy Based MIO Pigmented Intermediate Coat.	2 (DFT=75 Micron Min Per coat)		Epoxy based finish paint to IS: 14209 + Aliphatic Acrylic PU Paint to IS: 13213	1 (25 microns per coat) + 1 (25 microns per coat)		250	
5	Galvanised and Stainless steel Piping											
Notes: 1. Blast cleaning & application of Polyamide cured solvent less Epoxy (100% solids) shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per this document. 2. Witness by BHEL / BHEL nominated inspection agency.												
PREPARED BY : J. NANTHINI, Sr. Engr / QA			APPROVED BY : VIVEKANANDA YELLU, Dy.MGR / QA			For Customer use :			Page 1/1			


 Chief Engineer
 Thermal Projects Construction
 TSGENCO, Vidyut Soudha,
 Khairatabad, Hyd-500 082.

Part I - UnPriced bid (To be submitted with Technocommercial bid)

Enquiry ref **4011900012 dt 06.12.2019**

Vendor name M/s

Package	Material Code	Project Name	Work Order Detail	Pipe Description	Pipe Specification	Quantity in meters	Weight in MT	Under Ground (UG) / Over Ground (OG)	Process	d1 (mm)	Specific Length	Tolerance on pipe length in meters	Quoted / Not Quoted
Package 1	159385380000	Patratu	P7384180463010	PIPE DIA 273.1 X 6.0	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	2915	115.143	OG	ERW / LS / SPIRAL	261	10m to 14m	+/-2	
Package 2	159385340001	Patratu	P7384180463096	PIPE DIA 711.2 X 8	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	475	65.883	UG	LS / SPIRAL	697	10m to 14m	+/-2	
	159385340001	Patratu	P7384180463025	PIPE DIA 711.2 X 8	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	32	4.438	OG	LS / SPIRAL	697	10m to 14m	+/-2	
	159385340001	Patratu	P7384180463095	PIPE DIA 711.2 X 8	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	77	10.68	OG	LS / SPIRAL	697	10m to 14m	+/-2	
Package 3	159385830000	Yadadri	P7300180468033	PIPE DIA 914 X 10	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	150	33.81	UG	LS / SPIRAL	894	7m to 12.5m	+/-2	
	159385830000	Patratu	P7384180463021	PIPE DIA 914 X 10	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	3410	768.614	UG	LS / SPIRAL	894	10m to 14m	+/-2	
	159385830000	Patratu	P7384180463022	PIPE DIA 914 X 10	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	80	18.032	OG	LS / SPIRAL	894	10m to 14m	+/-2	
Package 4	159385970000	Patratu	P7384180463018	PIPE DIA 2235 X 18	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	28	27.552	UG	LS / SPIRAL	2199	10m to 14m	+ 2	
	159385970000	Patratu	P7384180463017	PIPE DIA 2235 X 18	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	8	7.872	OG	LS / SPIRAL	2199	NA	NA	
	159386020002	Patratu	P7384180463019	PIPE DIA 1829 X 14	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	960	601.92	UG	LS / SPIRAL	1801	10m to 14m	+/-2	
	159387080001	Patratu	P7384180463020	PIPE DIA 1422 X 12	IS3589 Pipes / Rolled & Welded pipes confirming to IS3589 Gr 410	180	75.06	UG	LS / SPIRAL	1397	10m to 14m	+/-2	

Cells highlighted in green color have to be filled by the vendors

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

4011900012 / 06.12.19 → CW Pipes - Patratu & Yadadri

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved

in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. 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.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act: further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 – Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 –Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the

Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

06/12/19

For & On behalf of the Principal
पूंगोडी. वि / POONGKODI. V
वरिष्ठ अभियन्ता / कृय / Sr. Engineer / Purchase
बी एच ई एल, पाईपिंग सेंटर / BHEL Piping Centre
टी. नगर, चेन्नई / T. Nagar, Chennai

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place--CHENNAI--

Date--06.12.19--

Witness: _____

संदीप / SANDEEP
(Name & Address)
वरिष्ठ अभियन्ता / कृय
Sr. Engineer / Purchase
बीएचईएल, पाईपिंग सेंटर / BHEL, Piping Centre
टी. नगर, चेन्नई - 17 / T. Nagar, Chennai - 17

Witness: _____

(Name & Address) _____

INFORMATION ON REVERSE AUCTION

REVERSE AUCTION (AA: SSP: RA: 03) Issued on 26.09.2016

BHEL reserves the right to go for reverse auction (RA) (guidelines as Available on www.BHEL.com) instead of opening the sealed envelope price Bid, submitted by the bidder. This will be decided after Techno-commercial evaluation. Bidders to give their acceptance with the Offer for participation in RA. Non-acceptance to participate in RA may Result in non-consideration of their bids, in case BHEL decides to go For RA.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'process compliance form' (to The designated service provider) as well as 'online sealed bid' in the Reverse auction. Non-submission of 'process compliance form' or 'online Sealed bid' by the agreed bidder(s) will be considered as tampering of The tender process and will invite action by BHEL as per extant Guidelines for suspension of business dealings with suppliers/ Contractors (as available on www.BHEL.com).

The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along With the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be Placed on lower of the two bids (RA closing price & envelope sealed Price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the Contract on thus awarded rates.

If it is found that L1 bidder has quoted higher in online sealed bid in Comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it Will be considered as fraud and will invite action by BHEL as per extant Guidelines for suspension of business dealings with suppliers/ Contractors (as available on www.BHEL.com)

Cancellation / Termination of contract, Default / Breach of contract and Risk Purchase

In case of abnormal delays (beyond the maximum late delivery period as per Penalty clause) in supplies / defective supplies or non-fulfilment of any other terms and conditions given in Purchase Order as enumerated subsequently in this clause, Purchaser shall be entitled to cancel the Order / Contract either in whole or portion thereof without compensation to Seller / Contractor and if the Purchaser so desires, may procure upon such terms and in such manner as deemed appropriate, stores not so delivered or others of similar description where stores exactly complying with particulars are not, in the opinion of the Purchaser, which shall be final, readily procurable, at the risk and cost of the Seller / Contractor and the Seller / Contractor shall be liable to the Purchaser for any excess costs provided that the Seller / Contractor shall continue the performance of the Order / Contract to the extent not cancelled under the provisions of this clause. The Seller / Contractor shall on no account be entitled to any gain on such repurchases. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer.

Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

- i. Contractor / supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/ supplier including unexecuted portion of work / supply does not appear to be executable within balance available period (#) considering its performance of execution.
- ii. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
- iii. Non completion of work / Non-supply by the Contractor / supplier within scheduled completion / delivery period as per Contract or as extended from time to time, for the reasons attributable to the contractor / supplier.
- iv. Termination of Contract on account of any other reason (s) attributable to Contractor / Supplier.
- v. Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vi. Non-compliance to any contractual condition or any other default attributable to Contractor / Supplier.

Risk and Cost amount against Balance Work:

$$\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$$

Where,

A= Value of Balance scope of Work / Supply (*) as per rates of new contract

B= Value of Balance scope of Work / Supply (*) as per rates of old contract being paid to the contractor / supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H= Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

***(Balance scope of work / supply)**

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work / Supply for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute / extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute / extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

Cancellation / Termination of contract, Default / Breach of contract and Risk Purchase

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

Note: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work / supply' for calculating Risk & Cost amount.

LD against delay in executed work / supply in case of Termination of Contract in case of Risk and Cost Option

LD against delay in executed work / supply shall be calculated in line with LD clause of the contract for the delay attributable to contractor / supplier. For limiting maximum LD value, contract value shall be taken as Executed Value of work / supply.

Method for calculation of "LD against delay in executed work / supply" is given below.

- i. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor / supplier= T1
- ii. Let the value of executed work / supply till the time of termination of contract= X
- iii. Let the Total Executable Value of work / supply for which inputs / fronts were made available to contractor / supplier and were planned for execution till termination of contract= Y
- iv. Delay in executed work / supply attributable to contractor/supplier i.e. $T2 = (1 - X/Y) * T1$
- v. LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor / supplier taking "X" as Contract Value and "T2" as delay attributable to contractor / supplier.

Note: In case portion of work / supply is withdrawn, no LD shall be applicable for portion of work / supply withdrawn.

Recovery from Supplier

Recoveries from contractor / supplier on whom risk & cost has been invoked shall be made from the following:

- i. Dues available in the form of Bills payable to contractor / supplier, SD, BG's against the same contract.
- ii. Dues payable to contractor / supplier against other contracts in the same Region / Unit / Division of BHEL.
- iii. Dues payable to contractor / supplier against other contracts in the different Region / Unit / division of BHEL.

Legal Options for recovery of dues payable by the supplier / contractor.

Declaration to be issued on Company letter head

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017 & P-45021/2/2017-PP (BE-II) dated 28.05.2018, we hereby certify that we, _____ (supplier name) are local supplier meeting requirement of minimum local content (50%) defined in as above orders for the following Enquiry SI Nos of BHEL Enquiry No 4011900012 dt 06.12.2019.

- Enquiry SI Nos-

Details of location at which local value addition will be made is as follows:

.....
.....

By issuing this declaration, we understand and are in acceptance to the following-

- False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.
- In case of debarment by any procuring entity for violation of the provisions of the Public Procurement (Preference to Make in India), Order 2017 we shall not be eligible for preference for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, the debarment takes effect prospectively from the date of uploading on the website(s) of The Department of Expenditure, GOI in such a manner that ongoing procurements are not disrupted.
- We undertake the onus of responsibility of submission of appropriately certified documents. We understand that BHEL is not at liability to verify the contents and will not be responsible for the declaration made by us. However, in case BHEL has any reason to doubt the authenticity of the local content, BHEL reserves the right to obtain the complete back up calculations before award of contract and we are liable to submit the same if requested by BHEL. We also understand that our bid is liable for rejection in case we fail to submit the details as requested by BHEL.

Seal and Signature of authorized signatory

Special Note-

In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.