



Bid Number/बोली क्रमांक (बिड संख्या):

GEM/2024/B/4846009

Dated/दिनांक : 08-04-2024

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	18-04-2024 15:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	18-04-2024 15:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Heavy Industries And Public Enterprises
Department Name/विभाग का नाम	Department Of Heavy Industry
Organisation Name/संगठन का नाम	Bharat Heavy Electricals Limited (bhel)
Office Name/कार्यालय का नाम	10250020-pem, Noida
Total Quantity/कुल मात्रा	20
Item Category/सद कैटेगरी	Lube Oil Transfer Pumps (Q3) , Strainers (for Lube oil transfer Pumps) (Q3) , Supervision of E&C -per Man Day charges (Q3) , Supervision of E&C -per Visit charges (Q3)
Years of Past Experience Required for same/similar service/अनुभव/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	1 Year (s)
MSE Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से एमएसई छूट	No
Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट	No
Document required from seller/बिडदेता से मांगे गए दस्तावेज़	Experience Criteria, Past Performance, Certificate (Requested in ATC), Additional Doc 1 (Requested in ATC), Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Past Performance/विगत प्रदर्शन	10 %
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Yes
RA Qualification Rule	H1-Highest Priced Bid Elimination
Type of Bid/बिड का प्रकार	Two Packet Bid
Primary product category	Lube Oil Transfer Pumps

Bid Details/बिड विवरण

Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	7 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Payment Timelines	Payments shall be made to the Seller within 90 days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills (This is in supersession of 10 days time as provided in clause 12 of GeM GTC)
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
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Splitting/विभाजन

Bid splitting not applied/बोली विभाजन लागू नहीं किया गया.

MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	No
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Details of the Competent Authority for MSE

Name of Competent Authority	S K DUBEY
Designation of Competent Authority	SDGM
Office / Department / Division of Competent Authority	BHEL PEM Noida
CA Approval Number	123
Competent Authority Approval Date	03-04-2024
Brief Description of the Approval Granted by Competent Authority	Being non divisible package, MSE preference is not given as per internall guidelines.

Competent Authority Approval for not opting Micro and Small Enterprises Preference : [View Document](#)

Reserved for Make In India products

Reserved for Make In India products	Yes
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1. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

2. Bid reserved for Make In India products: : Procurement under this bid is reserved for purchase from Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. However, eligible micro and small enterprises will be allowed to participate. The minimum local content to qualify as a class 1 local supplier is denoted in the bid document. All bidders must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which the bid is liable to be rejected. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020 . In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

3. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

4. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 10% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

5. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- i. If number of technically qualified bidders are only 2 or 3.
- ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Lube Oil Transfer Pumps (2 pieces)

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification	Download
Document/क्रेता विशिष्टि दस्तावेज़	

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	MAHESH KUMAR PARIHAR	759107,Construction Manager, BHEL SITE OFFICE, 2X660 MW NTPC TALCHER, DIST- ANGUL, (Odisha) PIN - 759107	2	365

Strainers (for Lube Oil Transfer Pumps) (2 pieces)**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	MAHESH KUMAR PARIHAR	759107,Construction Manager, BHEL SITE OFFICE, 2X660 MW NTPC TALCHER, DIST- ANGUL, (Odisha) PIN - 759107	2	365

Supervision Of E&C -per Man Day Charges (14 pieces)**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्र

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्र	Delivery Days/डिलीवरी के दिन
1	MAHESH KUMAR PARIHAR	759107,Construction Manager, BHEL SITE OFFICE, 2X660 MW NTPC TALCHER, DIST- ANGUL, (Odisha) PIN - 759107	14	745

Supervision Of E&C -per Visit Charges (2 pieces)**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्र

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्र	Delivery Days/डिलीवरी के दिन
1	MAHESH KUMAR PARIHAR	759107,Construction Manager, BHEL SITE OFFICE, 2X660 MW NTPC TALCHER, DIST- ANGUL, (Odisha) PIN - 759107	2	745

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें**1. Buyer Added Bid Specific ATC**Buyer uploaded ATC document [Click here to view the file.](#)**2. Inspection****Nominated Inspection Agency:** On behalf of the Buyer organization, any one of the following Inspection Agency would be conducting inspection of stores before acceptance:

Pre-dispatch Inspection at Seller Premises (applicable only if pre-dispatch inspection clause has been selected in ATC):

At vendors works

Post Receipt Inspection at consignee site before acceptance of stores:

NA

3. Certificates

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

4. Certificates

The bidder is required to upload, along with the bid, all relevant certificates such as BIS licence, type test certificate, approval certificates and other certificates as prescribed in the Product Specification given in the bid document.

5. Generic

Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. Any clause(s) incorporated by the Buyer regarding following shall be treated as null and void and would not be considered as part of bid:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process.
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, 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 the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---

2024

BHEL PEM GEM ATC

INTRODUCTION

1. This is a Buyer specific document named Additional Terms & Conditions (ATC). This document is applicable for the enquiry issued on Government e-Marketplace (GeM) portal. These terms and conditions must be read in conjunction with GeM-General Terms & Conditions (GTC).
2. In case of any conflict, terms and conditions stipulated in ATC shall supersede those in GTC on GeM.

INSTRUCTIONS TO THE SUPPLIERS

Suppliers are advised to note the following instructions regarding Bid/Offer submission: -

1. To regularly visit GeM portal to access the tender documents and latest updates about the tender.
2. To study all the tender documents carefully. Any submission of tender by the Supplier shall be deemed to have been done after careful study & examination of the tender documents and with full understanding of the implications thereof. Non-compliance with any of the requirements and instructions in the Tender Enquiry shall be treated as an Incomplete Bid/Offer. Suppliers would be liable for actions as per extant policies/guidelines, if they fail to abide by any of the Policies including the terms and conditions stipulated in this document.
3. Ensure submission of their Bid/Offer on or before the latest due date and time indicated in the tender after taking cognizance of all the tender documents including corrigenda (if any) published against this tender.
4. To submit their Bids/Offers on GeM portal only.
5. Not to send copy of Bid/Offer through any other mode i.e. hard copy and or through email etc. In case Bids/Offers are received through any other mode other than GeM portal from any of the Suppliers against this tender, the same shall be ignored.
6. Incomplete Bid/Offer shall be rejected by giving a suitable cut-off date.

ORDER OF PRECEDENCE

In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following order of precedence:

- i. Amendments to Order/ Contract Purchase Order
- ii. Order/ Contract Purchase Order
- iii. Letter of Intent (LOI)/ Letter of Award (LOA)
- iv. Clarifications agreed between Buyer and Supplier in regards to the tender or the bidding conditions
- v. Corrigenda to NIT, with those of later date having precedence over those of earlier date
- vi. Enquiry letter and annexures except documents listed in point no (vii) to (x) below.
- vii. Technical Specifications
- viii. Additional Terms & Conditions (ATC)
- ix. Special Conditions of Contract (SCC)
- x. GeM General Terms & Conditions (GTC)

DEFINITION OF TERMS

Throughout the Tender Documents including the Enquiry Letter, the following words shall have the meanings assigned to them herein, unless the subject matter or the context requires otherwise: -

- 1 **Owner** shall mean the **Customer** or **Client** for whose project the enquiry is issued by Buyer and shall include its successors and assignees as well as authorized officer(s)/ representative(s).
- 2 **Sub-Supplier** shall mean the person/ firm/ company/ organization to whom any part of the work has been sub-contracted by Seller/Supplier, with the written consent of Buyer, and shall include sub-Contractor's heirs, executors, administrators, representatives and assignees as agreed between Seller/Supplier and Buyer (BHEL).

Note - The term Supplier is used for Seller/ Bidder/ Vendor/Manufacturer in this document. The term Sub-Supplier is used for Sub-Contractor/ Sub-Vendor in this document.

- 3 **Site** shall mean and include the land and place on which the project station related facilities are to be constructed and any adjacent land which may be allocated or used by *Owner, Buyer or Supplier* in performance of the Order/ Contract.
- 4 **Erection** shall mean include all work required for complete installation, from receiving, unloading, storage, preservation, to fixing & securing the equipment in its space.
- 5 **Commissioning** shall mean successful/ satisfactory completion of Trial Operation and readiness of the contracted/ ordered package / plant and materials unit wise/ set wise/ individual sub-system etc. including associated stand by for commercial use. This will include all consumables and inputs required for pre-commissioning.
- 6 **Inspection Agency (IA)** shall mean person(s) authorized by Buyer / Owner to inspect the stores as per Order/ Contract at Supplier's / Sub-Supplier's works. Suppliers to raise inspection call on BHEL - Quality Surveillance System (<https://cqir.bhel.in>).
- 7 **Month** shall mean calendar month and **Week** shall mean 7 days.
- 8 **Services** shall include Engineering, Study, Calibration, Type Test, Supervision of Erection and/or Commissioning, Installation Check, PG Test, Demonstration, Operation & Maintenance (O&M), Annual Maintenance of Contract (AMC), etc.
- 9 **Performance Guarantee Test** shall mean a test to be conducted by the Supplier at Site and witnessed by Owner/ Buyer, as per procedure submitted by the Supplier and approved by Owner/ Buyer describing the objective of the test, detailed procedures to test the guaranteed parameters, obligations as per the order/ contract, results presentation procedure and verification & acceptance criterion.

TERMS & CONDITIONS

1	BID SECURITY/ EARNEST MONEY DEPOSIT (EMD)
1.1	a) EMD: Not Applicable
1.2	<p>Modes of Deposit: EMD shall be accepted only in the following forms:</p> <p>(i) Electronic Fund Transfer credited in BHEL account (before tender opening)- BHEL PEM account details is given at the link https://pem.bhel.com/Documents/VendorSection/BHELBANKER.pdf</p> <p>(ii) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer)</p> <p>(iii) Fixed Deposit Receipt (FDR)</p> <p>(iv) Bank Guarantee from any of the Scheduled Banks</p> <p>(v) Insurance Surety Bonds</p> <p>Scanned copy of EMD shall be uploaded by Supplier in the online bid and hard copy of the same (excluding EFT at pt.1.2(i)) shall have to be submitted to the Buyer within 7 (Seven) working days of bid opening, failing which the bid shall be rejected by giving a suitable cut-off date.</p>
1.3	The EMD shall remain valid for a period of 45 (forty five) days beyond the final bid/offer validity period. The EMD shall also be extended in case of extension of bid/offer validity.
1.4	<p>Forfeiture and Release/Return of EMD:</p> <p>i) A Supplier's EMD will be forfeited if the Supplier withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful Supplier fails to furnish the required performance security within the specified period mentioned in the Tender.</p> <p>ii) EMD by the Buyer shall be withheld in case any action on the Supplier is envisaged under the provisions of extant "Guidelines on Suspension of Business Dealings with Suppliers/ Contractors" of BHEL and forfeited/ released based on the action as determined under these guidelines placed at https://www.bhel.com/supplier-registration.</p> <p>iii) Bid securities of the unsuccessful Suppliers shall be returned to them at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. However, in case of two packet or two stage bidding, Bid securities of unsuccessful Suppliers during first stage i.e. technical evaluation shall be returned within 30 days of declaration of result of first stage i.e. technical evaluation.</p> <p>iv) Bid security shall be refunded to the successful Supplier on conclusion of the Order/ receipt of a performance security (if applicable).</p>
1.5	EMD shall not carry any interest.
2	PART-II BID OPENING IS SUBJECT TO FOLLOWING CONDITIONS:
	i) Qualification of Technical and/or Financial PQR as applicable.

	<ul style="list-style-type: none"> ii) Techno-commercial compliance to the NIT (Bid). iii) Mandatory conformance to applicable Govt. of India rules/ guidelines/ notifications/ circulars as issued or amended time to time. iv) Approval of Supplier by NTPC as per sub vendor questionnaire
3	REGISTRATION IN BHEL-PEM
	<p>It is strongly recommended that suppliers get themselves registered in BHEL-PEM as a "Regular Supplier". Regular Suppliers for the package are informed about the floated tender enquiries by BHEL-PEM. Suppliers to apply online through registration portal available at www.pem.bhel.com - <u>Vendor Section - Online Supplier Registration</u>. All credentials and/or documents duly signed and stamped related to registration can be uploaded & submitted online through the website.</p>
4	TECHNICAL PQR
	<p>a) Technical PQR: Not Applicable</p> <p>b) Technical PQR: Applicable</p> <p>i) Supplier has to provide the details as per TECHNICAL PQR in its Offer. Supplier to note that bids of only those Supplier(s) shall be evaluated who meet the Pre-Qualifying requirements.</p> <p>ii) This item/package /system falls under the list of items defined in para 3 of ministry of finance guideline dated 20.09.16 (Procurement of items related to Public safety, Health, Critical Security operations & Equipment's etc.) & hence criteria of prior experience/Turnover shall be same for all the Suppliers including Start-up/MSME.</p>
5	FINANCIAL PQR
	a) Financial PQR: Not Applicable
5A	Above terms of BHEL PQR(s) shall prevail in conflict (if any).
6	INTEGRITY PACT (IP)
6.1	a) IP: Not Applicable
6.2	Left Blank

7	PQR DOCUMENTS VERIFICATION
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Suppliers to ensure that Third party / Customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document / certificate issuing authority in the format given below. Suppliers to furnish latest verification details for checking veracity of document(s) by the Buyer. In case the same is found not available, Buyer has right to reject such document(s) from evaluation: -

Sl. No.	Project Name	Customer Name, Contact Address, Phone No. & Email ID	Contract/ Order No.	Value of Contract/ Order	Brief of Work	Completion Date

8	CONFLICT OF INTEREST
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A Supplier shall not have conflict of interest with other Suppliers. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. **The Supplier found to have a conflict of interest shall be disqualified.** A Supplier may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- 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 Supplier, **or**
- e) Supplier participates in more than one bid in this bidding process. Participation by a Supplier 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:
 - f.i. The principal manufacturer directly or through one Indian agent on his behalf; and
 - f.ii. Indian/foreign agent on behalf of only one principal,

or
- g) A Supplier 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. Suppliers must proactively declare such sister/ common business/ management units in same/ similar line of business.

9	LIMIT FOR SUPERVISION OF E&C CHARGES
	Supervision of E&C charges, if applicable, should not exceed 2% of the Total Contract Value (including Main Supply, E&C, Mandatory Spares, etc.) excluding freight & GST, failing which the quoted amount shall be adjusted (2% of the total contract value) by Buyer at the time of ordering. Payment shall be made as per the adjusted amount.
10	DETAILED PRICE BREAK-UP
	Suppliers to mention freight/GST percentage for all the items as part of un-priced bid to be submitted along with their Techno-Commercial offer. Detailed Price Break-up shall be submitted by Supplier within Three (03) working days of Reverse Auction. If Price Break-up is not furnished within 03 working days, Buyer shall proceed ahead with its Price Break-up, which shall be binding on the Supplier.
11	PRICES
	Prices shall be FIRM for the entire scope of work in line with the tender documents and subsequent clarifications / confirmations till completion of Order / Contract.
12	DELIVERY SCHEDULE & CONTRACT VALIDITY
12.1	<p>1. Delivery Schedule</p> <p>a) Main Supply including quantity variation: Delivery completion for Main supply shall be ... “167 ... days from the PO date.</p> <p>b) Services (if applicable) – Supervision of E & C : Supplier to depute its service engineer for respective site activity within 15 days from BHEL's intimation.</p> <p>2. Supplier to start manufacturing/supply only after getting the applicable engineering Drgs. /docs approved from Buyer/ Owner. Drawings /documents submission/re-submission schedule shall be as per technical speciation which shall be used for progress monitoring purpose and required course correction, if any.</p> <p>3. The delivery date specified is for completion of the deliveries. Deliveries to start progressively so as to meet the completion schedule. The delivery conditions specified are for contractual purposes. However, to meet project requirement, the Buyer may ask for early deliveries without any compensation thereof.</p> <p>4. Delivery period mentioned in GeM portal is tentative. Above mentioned delivery schedule shall prevail.</p>
12.2	<p>1. Validity of Contract (PO rates, terms and conditions): Supplier has to make supply of goods/services as per the delivery time mentioned above. However, due to unavoidable circumstances where there is delay in providing inputs/ clearances from the Buyer (inputs, engineering approvals, deputing inspector for inspection, issuance of MDCC and/or any hold put</p>

	<p>by the Buyer for whatever reasons during execution of contract etc.) delivery time extension is admissible as per point no.3 below. In such situation it shall be obligatory on part of the Supplier to execute the contract at PO rates, terms and conditions provided inputs/ clearances have been accorded within validity of contract. Validity period for various activities shall be as defined below: -</p> <p>1.1 Validity of the contract for main supply including quantity variation:</p> <p>Contract shall be valid for365.... days from the PO date. However, delay at Supplier's end (if any) shall be added to the validity period and contract validity shall get extended by the delay period at Supplier's end.</p> <p>For example: Original Delivery period for main supply: A (in days) Delay at Supplier's end: B (in days beyond "A" days) Contract validity: C+B (in days) Supplier to note that B is the Supplier delay days beyond original contractual delivery period for main supply /extended delivery period owing to time taken by BHEL.</p> <p>1.2 Validity of the contract for Supply of Mandatory Spares/ Services (other than PG test) applicable in the contract: Validity of contract for supply of mandatory spares/ services applicable in the contract shall be one year over and above contractual validity period for main supply including quantity variation as specified at point no. 1.1 above.</p> <p>1.3 Validity of contract for Performance Guarantee (PG) test: Validity of contract for PG test shall be till completion of the PG Test.</p> <p>2. Main supply including quantity variation, mandatory spares/ services applicable in the contract released/ cleared for manufacturing within contractual validity period, to be supplied by Supplier at PO rates, terms and conditions.</p> <p>3. Execution of the contract quantities released beyond contract validity period shall be decided on mutual consent basis at PO rates, terms and conditions.</p>
13	TERMS OF DELIVERY AND INSURANCE
	<p>13.1 Terms of delivery shall be F.O.R. dispatch station. All dispatches shall be through Road Carriers on Freight Pre-Paid basis. E-way Bill will be arranged by Supplier as per GST law.</p> <p>13.2 Unloading of items at delivery point shall be in the scope of Buyer.</p> <p>13.3 Transit Insurance shall be in the Supplier's account.</p>
14	DOCUMENTS FOR DISPATCH
	<p>Supplier to submit copy of following documents by e-mail immediately on dispatch:</p> <ul style="list-style-type: none"> i) Tax Invoice/ e-Invoice (as applicable), ii) LR, iii) Packing List, iv) Insurance Intimation,

	<ul style="list-style-type: none"> v) E-way bill (as applicable), vi) Copy of BHEL MDCC
15	PAYMENT TERMS
	<p>15.1 Payment of Main Supply including Mandatory Spares (if any): 100% Payment shall be released against Consignee Receipt-cum-Acceptance Certificate (CRAC)/MRC (Material Receipt Certificate) on submission of bills.</p> <p>15.2 Payment of Service(s) Charges: 100% payment shall be released after successful completion of the activity on pro rata basis against CRAC/ certification by Buyer's Site or Engineering (as applicable) on submission of bills.</p> <p>15.3 Documents for Payment:</p> <p>a) <u>For Supply including Mandatory Spares (if any):</u></p> <ul style="list-style-type: none"> i) Original Tax Invoice/e-Invoice (as applicable), ii) Packing List, iii) LR/Receipted LR, iv) CRAC/MRC (issued by project site engineer of Buyer/Owner), v) Guarantee Certificate, vi) E-way bill (as applicable), vii) Copy of valid Insurance document and Intimation, viii) Proof for submission of Performance Security (if applicable), ix) Copy of BHEL MDCC, x) PVC Calculation & copy of all applicable indices (if PVC is applicable) <p>b) <u>For Services:</u></p> <ul style="list-style-type: none"> i) Original Tax Invoice/e-Invoice (as applicable) & ii) CRAC/certification by Buyer's Site or Engineering (as applicable) <p>15.4 Payments to Supplier's shall be released only after:</p> <ul style="list-style-type: none"> a) Supplier has declared such invoice in GSTR-1as per the relevant GST Act. b) The tax component charged by the Supplier in the invoice matches with the details uploaded by the Supplier in GSTR-1 and GST liability is discharged through GSTR 3B. <p>In case, any GST credit is delayed/denied to the Buyer due to non/delayed receipt of goods and/or tax invoice or expiry to timeline prescribed in the relevant GST Act for availing such ITC, or any other reasons not attributable to the Buyer, tax amount shall be recovered from the Supplier along with interest levied/ leviable on the Buyer.</p> <p>15.5 RXIL is an initiative instituted by Govt. of India for MSMEs. PEM strongly advise all the MSME suppliers to get themselves registered on RXIL(TreDs) for faster payments.</p> <p>15.6 Time line for Payment: Payment shall be made within timeline as mentioned below from the date of issue of consignee receipt-cum-acceptance certificate (CRAC)/MRC/Completion of Services certified by Buyer's Site/Engineering.</p>

	<p>a) Within 45 days for Supplier qualified and registered as Micro or small enterprises as per MSMED Act</p> <p>b) Within 60 days for Supplier qualified and registered as Medium enterprises as per MSMED Act</p> <p>c) Within 90 days for suppliers other than (a) & (b) above</p> <p>The supplier shall ensure submission of complete documents along with the bill. In case of incomplete documents, the bill shall be rejected, and next due date shall start from the date of closure of discrepancy by the Supplier.</p> <p>Provision of payment outside GeM shall be utilized.</p> <p>15.7 Notwithstanding anything to the contrary contained in any other document comprising the contract, no interest shall be payable by the Buyer to the Supplier on any money or balances including but not limited to the security amount, Performance Security amount, bank guarantee amount, EMD, retention money, any bills or any amount withheld which may become due owing to difference or misunderstanding or any dispute between the Buyer and the Supplier, or any delay on the part of Buyer in making periodical or final payment or any other aspects incidental thereto.</p>
16	PERFORMANCE SECURITY
16.1	<p>a) Performance Security: Not Applicable</p> <p>b) Performance Security: Applicable</p> <p>Supplier may opt any of the following for submission of Performance Security: –</p> <p>16.1.1: Initially 10% of the contract value (Total Order value excluding PVC). 5% of the contract value (excluding PVC) will be released after completion of Main Supply based on certification by PG. However, balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations based on certification by PG.</p> <p style="text-align: center;">_____ Or _____</p> <p>16.1.2: 5% of the contract value (total Order value excluding PVC). Additional 5% of the contract value (excluding PVC) will be deducted & retained from first bill & subsequent bill(s) of the same contract (in case the value of first bill is less than 5% of the contract value). The retention amount will be released after completion of Main Supply based on certification by PG. However, balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations based on certification by PG.</p> <p>This percentage supersedes the GeM enquiry SD/Performance Security percentage.</p> <p>Single bank guarantee of 10% value from will be given by those bidders who will secure Purchase orders having total cumulative value more than 20 L. In case, contract value is less than 20 L, BG shall be not applicable.</p>
16.2	<p>Modes of Deposit: Supplier has to furnish Performance Security in the following forms:</p> <p>(i) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.</p>

	<p>(ii) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.</p> <p>(iii) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).</p> <p>(iv) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).</p> <p>(v) Insurance Surety Bond.</p> <p>BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.</p>
16.3	<p>Performance Security is to be furnished within 14 days from the date of PO/LOA and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations. Initial validity of Performance Security shall be as per GeM Bid. However, Performance Security validity is to be extended based on the actual delivery of package.</p>
16.4	<p>Performance Security value can be proportionately reduced after completion of Guarantee Period Unit wise/ Stage wise/Set wise/Scope wise (Main Supply/Mandatory spares/Services excluding PG test) subject to the units/sets/stages/Scope (Main Supply/Mandatory spares) being explicitly specified in delivery terms in the contract. However, Performance Security for the last unit/set/stage will be released only after completion of all contractual liability or guarantee period, whichever is later.</p>
16.5	<p><u>Forfeiture and Release/Return of Performance Security:</u></p> <p>i) The Performance Security will be forfeited and credited to BHEL's account in the event of a breach of contract by the Supplier.</p> <p>ii) Performance Security shall be refunded to the Supplier without interest, after he duly performs and completes the contract in all respects but not later than 60 (Sixty) days of completion of all such obligations including guarantee/warranty under the contract.</p> <p>iii) If Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package (if applicable), as per Order/ Contract is not conducted up to 36 months from supply completion for reasons not attributable to the Supplier then Performance Security for total contract shall be released on submission of undertaking by the Supplier that Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package shall be conducted as and when required by Buyer.</p>
16.6	<p>The Performance Security shall not carry any interest.</p>
17	<p>LIQUIDATED DAMAGES (LD):</p>
	<p>Timely dispatch/delivery and completion of other schedules as stipulated in Order/Contract shall be the essence of Order/Contract. If the Supplier fails to complete the dispatch/delivery and other</p>

	<p>schedules within the time period stipulated in Order/Contract, or within any extension of time granted by the Buyer, it shall be lawful for Buyer to recover damages for breach of Order/Contract and hereunder.</p> <p>17.1 Buyer reserves the right to recover from the Supplier, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the total main supply contract value excluding GST per week or part thereof, subject to a maximum of ten (10) percent of the total of main supply contract price excluding GST, if the Supplier fails to deliver any part of the ordered goods/stores within the period stipulated in the Order/ Contract.</p> <p>17.2 LD on service portion where delivery for services are defined separately in the Order/Contract. LD shall be applicable @ ½ percent, of the total service contract value excluding GST per week or part thereof. However, total LD (main supply and services) shall be limiting to 10% of cumulative total contract value (main supply +services) excluding GST.</p> <p>17.3 LD on mandatory spares portion where delivery for mandatory spares is defined separately in the Order/Contract. LD shall be applicable @ ½ percent, of the total of mandatory spares contract value excluding GST per week or part thereof, limiting to 10% of total contract value of mandatory spares excluding GST.</p> <p>17.4 In case of any amendment/ revision, LD shall be linked to the amended/ revised contract value and delivery date(s).</p> <p>17.5 LR/RR date for indigenous supplies shall be treated as the date of dispatch for levying LD. However, if date of receipt at site for indigenous supply is beyond the maximum validity of E-way bill as per extant govt. GST law then such excess period shall also be considered for LD purpose irrespective of the dispatch date.</p> <p>17.6 If Order/ Contract involves two or more Units/ Sets/ Stages, then Liquidated Damages shall be levied on order/ contract value excluding GST of the delayed Unit/ Set/ Stage, provided delivery stipulated in the Order/ Contract is Unit/ Set/ Stage wise and total LD amount shall be limited to 10% of total Order/ amended Order value excluding GST of delayed Unit/ Set/ Stage.</p> <p>17.7 The sum specified above is not a penalty but a genuine pre-estimate of the loss/ damage which will be incurred by the Buyer directly or indirectly on account of delay in delivery of material/equipment/services on the part of the Supplier and the said amount will be deductible without proof of actual loss or damage caused by such delay.</p>
18	GUARANTEE TERMS
	<p>18.1 Guarantee Period (Unit-wise, Stage-wise, Set-wise, System-wise - as applicable) for Supply package shall be Eighteen (18) months from the date of last dispatch.</p> <p>18.2 All Shortages/damages in sound cases shall be replenished free of cost by the Supplier, as early as possible however, not exceeding more than 45 days from the time of reporting the shortage/damage.</p> <p>18.3 For shortages/damages during transit, Supplier shall supply replacements free of cost as early as possible, within 45 days from the time of reporting the defect/ loss/ rejection etc. by the Buyer/ Owner/ Site.</p>

	<p>18.4 For shortages/damages during handling at site, Supplier shall supply replacements, as early as possible, at the old contractual rates upon intimation to Supplier within 45 days from the time of reporting the defect/ loss/ rejection etc.</p> <p>18.5 All replacements and repairs during the guarantee period shall be delivered and completed promptly and satisfactorily within a period of 45 days from the time of reporting the defect/ loss/ rejection etc. Damaged items/parts can be taken back by Supplier on his own cost with the permission of Owner.</p> <p>18.6 All the replaced and replenished plant/ equipment/ stores shall also be guaranteed as per PO terms.</p>
19	INSPECTION
	<p>19.1 Buyer and/or Buyer's nominated Inspection Agency shall have at all reasonable times access to Supplier's premises or works and shall have the power at all reasonable times to inspect drawings of any portion of the work or examine the materials and workmanship of the plant/ equipment/ stores during their manufacture, and if part of the plant/ equipment/ stores is manufactured at other premises, the Supplier shall arrange for inspection, examination and testing by the Inspection Agency as if the plant/ equipment/ stores is manufactured on the Supplier's premises. Procedure for approval of works shall be as per the procedure given on https://cqir.bhel.in/Cqir/jsp/Masters/Help_File_for_suppliers.pdf</p> <p>Inspection calls should be raised by the Supplier on BHEL - Quality Surveillance System (https://cqir.bhel.in).</p> <p>Such inspection, examination and testing by itself shall not relieve the Supplier from any obligation under the Order/ Contract.</p> <p>19.2 Supplier shall give Inspection Agency reasonable notice of 15 days of any material being ready for testing and the Inspection Agency shall (unless the inspection of tests is voluntarily waived) attend at the Supplier's premises within seven (7) days of the date on which the material is notified as being ready. Tests are to be performed as per Buyer approved QAP (if applicable).</p> <p>19.3 In case of delay in witnessing of inspection beyond stipulated time (i.e. 7 days from the proposed date of inspection as notified by the Supplier through e-mail/call raised on BHEL - Quality Surveillance System (https://cqir.bhel.in) by the Buyer arising due to reasons not attributable to Supplier, Buyer will extend the delivery period for such delay in witnessing inspection. If the Buyer is not able to witness inspection up to 15 days then in addition to delay beyond stipulated period, 7 days' additional time shall also be given to the Supplier to facilitate for arranging fresh inspection.</p> <p>19.4 Where the Order/ Contract provides for tests/ inspections at the premises or works of the Supplier or any Sub-Contractor, the Supplier, except specified otherwise, shall provide free of charge such assistance, labour, materials, electricity, fuel, water, stores, apparatus, measuring instruments and test equipment including any other facilities as may be reasonably required to carry out such tests efficiently.</p>

20	MATERIAL DISPATCH CLEARANCE CERTIFICATE (MDCC)
	<p>20.1 When the tests have been satisfactorily completed at Supplier’s works, the Inspection Agency shall issue an inspection report that effect within seven (07) days after completion of the tests, but if the tests were not witnessed by the Inspection Agency or his representative, the material acceptance report would be issued within seven (07) days after receipt of the test certificates by the Buyer.</p> <p>20.2 Buyer will issue MDCC to the Supplier within 7 days based on inspection report/ test certificates/Certificate of Conformance as applicable. In case of delay in issuance of MDCC beyond 7 days stipulated time (i.e. from the date of receipt of Inspection Report/Test certificates), by the Buyer due to reasons not attributable to the Supplier, Buyer shall extend the delivery period for such delay in issuing MDCC. If the Buyer is not able to issue MDCC up to 15 days then in addition to delay beyond stipulated period, 7 days’ additional time shall also be given to the Supplier to facilitate for arranging logistics arrangements.</p> <p>20.3 Supplier shall not dispatch any material before issue of MDCC by the Buyer.</p>
21	PACKING LIST
	<p>Packing shall be in conformity with specifications and shall be such as to ensure prevention of damages, corrosion, deterioration, shortages, pilferage and loss in transit or storage.</p> <p>Suppliers to submit Packing List along with advance set of documents for claiming payment which must indicate:</p> <ul style="list-style-type: none"> i. No. of boxes ii. Packing size. iii. Gross weight and net weight of each package. iv. Contents of the package with cross reference to BoM item code no. or item serial no. v. Quantity of each item separately. <p>The Packing list must cover all the BoM items and supplier to give the following undertaking in the Packing List: “The Packing List provided herewith is as per the BoM approved under Contract No.-dated-”</p>
22	DELIVERY EXTENSION: EXTENSION OF CONTRACTUAL DELIVERY TIME
	<p>Delivery time mentioned in the NIT includes Engineering completion time (time for drawing/document submission/resubmission by the Supplier and review/approval of the same by the Buyer/Owner), manufacturing, inspection, Packing and dispatch time. Due diligence is to be observed by the Supplier to ensure timely completion of engineering and supply.</p> <p>During the execution of the contract, time loss occurred owing to the reason attributable to the Buyer besides force majeure shall be considered for delivery time extension to the Supplier as given below:</p> <ul style="list-style-type: none"> i) Any Delay in providing comments/ approval on Primary drawing/documents beyond the stipulated time as specified in NIT. ii) Time Loss in approval of the drawing/document as a result of increase in the iteration not attributable to the Supplier (i.e. resubmission owing to end customer comments) as certified by Buyer. Time extension equivalent to the resubmission time noted in the tech. spec and

	<p>consequential increase in the approval time in lieu of increase in iteration shall be applicable. However, for incomplete re- submission time loss shall be in the Supplier's account.</p> <p>iii) Delay in providing engineering input by Buyer.</p> <p>iv) Delay in deputing inspector for inspection and delay in release of MDCC in line with clause no. 20 above.</p> <p>v) Any hold put by Buyer for whatever reasons during execution of contract (within contract validity period), time extension equivalent to hold period shall be admissible. However, in the event hold period continues for more than 30 days then, an additional 15 days for the purposes of mobilization and demobilization of resources shall also be admissible.</p> <p>Supplier to note that Extension in delivery period if any with or without imposition of LD shall be considered after detailed delay analysis based on provisions given above. Supplier to provide dates of drg./doc. submission & re-submission (if any) within 7 days of Cat-I approval. However, no delay analysis will be applicable if supply is completed within delivery schedule as specified in Order/ Contract.</p>
23	BREACH OF CONTRACT, REMEDIES AND TERMINATION
	<p>In case of Breach of Contract, BHEL shall recover 10% of the contract value from the Supplier using following instruments:</p> <p>(i) encashment of security instruments like EMD, Performance Security with PEM against the said contract.</p> <p>(ii) balance amount (if value of security instruments is less than 10% of the contract value) from other financial remedies i.e. available bills of the Supplier, retention amount etc. with PEM.</p> <p>(iii) balance amount from security instruments like EMD, Performance Security and other financial remedies i.e. available bills of the Supplier, retention amount etc. with other units of BHEL.</p> <p>(iv) Any other mode as deemed fit by the Buyer at its sole discretion.</p> <p>(v) if recovery is not possible then legal remedies shall be pursued.</p> <p>However, Supplier shall continue performance of the Order/ Contract, under all circumstances, to the extent not cancelled.</p>
24	SUSPENSION OF BUSINESS DEALINGS
	<p>The "Guidelines on Suspension of Business Dealings with Suppliers/ Contractors" is placed at https://www.bhel.com/supplier-registration and, same shall prevail over Incident Management Policy of GeM.</p>
25	SUPPLIER PERFORMANCE MONITORING AND RATING SYSTEM
	<p>Supplier's performance will be evaluated as per Supplier Performance Monitoring and Rating System of BHEL. Please refer BHEL website www.bhel.com for details.</p>
26	CONFIDENTIALITY
	<p>Supplier shall, at all times, undertake to maintain complete confidentiality of all data, information, software, drawings & documents, etc. belonging to the Buyer and also of systems, procedures, reports, input documents, manuals, results and any other company documents discussed and/ or finalized during the course of execution of Order/ Contract. i.e. Supplier shall in no way share or use such</p>

	intellectual property of Buyer to promote his own business with others. Buyer reserves the right to claim damages from the Supplier, or take appropriate penal action as deemed fit against the Supplier, for any infringement of the provisions contained herein.
27	INTELLECTUAL PROPERTY & LICENSES
	<p>If any patent, design, trademark, trade secret or any other intellectual property rights apply to the delivery or accompanying documentation/drawings, Buyer or its customer shall be entitled to the legal use thereof free of charge by means of a non-exclusive, assignable, transferrable, sub-licensable, worldwide, perpetual license. All intellectual property rights that arise due to the execution of the delivery by the Supplier and by its employees or third parties involved by the Supplier for the performance of the contract shall be promptly notified by the Supplier to the Buyer and shall be deemed to belong to the Buyer. The Supplier shall be obligated to cooperate with the Buyer and do everything necessary to obtain or perfect the above-mentioned rights in favour of the Buyer.</p> <p>The Supplier represents and guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. In the event a third party makes a claim, the Supplier shall also be obligated to do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged) claims by third parties.</p> <p>The Supplier agrees to indemnify, defend and hold harmless the Buyer, its officers, employees, agents, representatives, successors, assignees or any of the Buyer's customers buying or using the goods or services specified herein, against any actual or alleged infringement of such intellectual property interests, claims by third parties in this regard and shall pay to the Buyer merely on demand without demur and without requiring the Buyer to furnish any proof of such claim, such sum as indicated in the demand towards any liabilities, damages, penalties, injuries, claims, demands, actions, cost and expenses etc. suffered as a result thereof.</p> <p>The Supplier agrees that its liability under this clause shall be unlimited.</p>
28	<p>Bidders to, Ensure compliance of Ministry of Finance (MoF) Order (Public Procurement No. 4) F. No. 7/10/2021(1) PPD dt. 23.02.23.</p> <p>to submit "Model Certificate for Tenders" as per Annexure-III of Ministry of Finance (MoF) Order (Public Procurement No. 4), dt:- 23/02/23</p> <p>Note: Subsequent orders/circulars to be checked and to be complied.</p>
29	PVC is not applicable.
30	Being non- divisible package, MSE preference shall not be given.
31	Quantity variation - Nil
32	All other terms & conditions shall be as per GeM bid, above GeM Additional Terms & Condition and GTC on GeM 4.0 (version 1.14 dated 31.01.24).

Index of Annexures

GeM Tender Enquiry for Lube Oil Transfer Pumps for 2x660MW NTPC TALCHER TPP STAGE III

Sl. No.	Description	Annexures
1.	BOQ	Annexure I
2.	Land border certificate	Annexure II
3.	Certificate for local Content	Annexure III
4.	Technical PQR	-
5.	Technical Specification	-
6.	NTPC sub vendor questionnaire	-
7.	Project Specific Special Condition of Contract incl. QR code annexures	-

Annexure I to BOQ

S. No.	DESCRIPTION	HSN CODE	UNIT	QTY
NAME OF PROJECT:		2x660MW NTPC TALCHER TPP STAGE III		
NAME OF PACKAGE:		LUBE OIL PUMPS		
TECHNICAL SPECIFICATION:		PE-TS-497-567-A001		
1.1	Main Supply -Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part comprising of design (i.e.preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles (as applicable), fill of lubricants & consumables, supervision of E&C, alongwith spares for erection, startup and commissioning as required, forwarding, proper packing, shipment and delivery at site complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.		Lot	1
1.1	Pump & motor set duly coupled and unitised on a common base frame with coupling guard, foundation bolts, flanges, companion flanges with nuts bolts and gaskets, drip pan with plugged draining arrangement with one set of commissioning spares comprising of one no. mechanical seal and one no. gasket compound tube/one set gasket for pump. Rated Capacity 6600 LPH and rated discharge pressure as 2 kg/cm2 (g), inlet/outlet size as 80NB/80NB	8413 60 10	Nos.	2
1.2	Strainer complete with flanges,companion flanges with nuts bolts and gaskets, foundation bolts (if applicable) with nuts and washers, 15 NB vent and drain connections provided with CS ball valves, 15 NB vent & drain pipe each 5 ft long with one set of commissioning spares comprising of one set gasket for strainer. Duplex Strainer - Rated Capacity 6600 LPH, inlet/outlet size as 80NB/80NB	8413 60 10	Nos.	2
2	Supervision of E&C			
2.1	Supervision of E&C including Supervision of assembly, erection and commissioning, including visit charges (should include travel expenses to/ fro site, visa/ insurance (if applicable)), boarding, lodging & other related exepenses for the total scope defined as per BHEL NIT & tender technical	998871	No.	2
2.2			No.	14

Notes:

1) The requirement for visit &/or supervision at site as indicated at sl no. 2.1 & 2.2) shall vary as per requirement of site. Any variation shall be adjusted as per Unit rate mentioned in PO.

Annexure II

An undertaking regarding Model Clauses on company letter head only

(To be provided along with bid)

Reference: NIT No.-

Package: - Lube Oil Transfer Pumps

Project: 2x660MW NTPC TALCHER TPP STAGE III

TO WHOM SO IT MAY CONCERN

This is with reference to Ministry of Finance circular dated 23.02.23 reg. restriction under rule 144 (xi) of GFR.

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that M/s (bidder name) is not from such a country and is eligible to be considered/participate in tender enquiry for against aforesaid tender enquiry.

Sign & Signature (Not below Director/owner of the company)

Date:

Place:

ANNEXURE III
2x660MW NTPC TALCHER TPP STAGE III
Lube Oil Transfer Pumps
Letter head of Company

Ref.....

Date.....

To,
Bharat Heavy Electricals Limited
PEM, PPEI Building, Plot No 25,
Sector -16A, Noida (U.P) -201301

Subject: - Certification regarding local content

Reference: Tender Enquiry No-.....

Package: - **Lube Oil Transfer Pumps**

Project: **2x660MW NTPC TALCHER TPP STAGE III**

Dear Sir,

We hereby certify that items offered by us of **Lube Oil Transfer Pumps** for **2x660MW NTPC TALCHER TPP STAGE III**(minimum % of local content) meets the requirement of minimum local content in line with applicable clause of Make In India and the Public Procurement (Preference to Make in India), Order 2017 dated-15.06.2017, 28.05.2018 & 29.05.2019, 04.06.20, 16.09.20 and subsequent order dated 16.11.21.


We further confirm that details of location at which the local value addition is made will be our registered works at(address of the works)

Yours very truly

..... (authorized signatory of company)

..... (firm name)

authorized signatory
of company

	PROJECT: 2x660MW NTPC TALCHER TPP STAGE III PRE-QUALIFICATION REQUIREMENT- LUBE OIL TRANSFER PUMPS	DOC NO.: PE-PQ- 497-567-A001	
		DATE	05.01.2024
		REV NO	0

1.0	The following technical details are required from bidder to comply technical PQR: a) LUBE OIL PUMPS should be of GEAR type. b) Pump should be designed as per API-676.
2.0	Supplier should have capabilities for design/manufacturing and having in-house / out-sourced facility for these pumps meeting the requirements as per sl.no. 1.0 Above.
3.0	The supplier has to submit either of following supporting documents meeting above mentioned pre-qualifying requirement. a) Copy of minimum one (1) performance certificate in English from end user along with copy of related Purchase Order (PO) or letter of intent (LOI) or letter of award (LOA) or work order (WO) specifying that the product/equipment is running successfully for one (1) year from date of commissioning meeting the minimum pre-qualifying requirement. OR b) Minimum two PO/LOI/LOA/WO placed with a minimum gap of six (6) months from same purchaser meeting the minimum pre-qualifying requirement. OR c) Minimum one PO/LOI/LOA/WO after commissioning of first order from same purchaser meeting the minimum pre-qualifying requirement. OR d) In case, vendor has executed contract (s) for BHEL-PEM, internal assessment by BHEL-PEM shall be followed for evaluation for satisfactory performance. For this, vendor, vendor to submit the request along with relevant documents. OR e) Minimum three customer's /third party's inspection reports/ test certificates/ commissioning certificates meeting the minimum pre-qualifying requirements.
4.0	Bidder shall submit design documents to substantiate technical parameters specified in PQR, if the same is not mentioned in performance certificate/purchase order.
5.0	Minimum one (1) no. Purchase order shall be submitted which should not be more than seven (7) years old as on date of bid submission, for establishing continuity in business. This is over and above the requirement of PO mentioned at S.No. 3.0 above.
6.0	Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
7.0	Notwithstanding anything stated above, BHEL reserve the right to assess the capabilities and capacity of the bidder/ collaborator to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
8.0	Consideration of offer shall be subject to customer's approval of bidder, if applicable.
9.0	After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.
10.0	The bidder shall meet PQR based on its own credentials. Bid from joint venture company / Consortium bid is not acceptable.

2x660MW NTPC TALCHER TPP STAGE III

TECHNICAL SPECIFICATION
FOR
LUBE OIL TRANSFER PUMPS

SPECIFICATION NO.: PE-TS-497-567-A001



BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA (INDIA)



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660MW NTPC TALCHER TPP STAGE III

PE-TS-497-567-A001

Rev. No. 00

Date :05.01.2024

INDEX

SL NO.	DESCRIPTION	SHEET NO.
1	Project Information	3
2	Scope	4
3	General Technical Requirement	5
4	Specific Technical Requirement	6-10
a)	Technical Data - Part - A	11-14
b)	Technical Data - Part - B (Supplier Data to be submitted after of contract)	15-17
5	Quality Plan	18-28
6	Sub Vendor List	29-31
7	Painting Requirement	32
8	Packing Requirement	33-41
9	Bill Of Quantity (BOQ)	
a)	Supply	42
b)	Services	42
10	Documentation Requirement	
a)	Documents Required Along With Bid By Bidders	43
b)	Documents to be submitted by Successful Bidder after award of contract along with submission schedule	43
11	Compliance Certificate	44
12	Pre-Qualification Requirement (Technical)	45
13	Pre-Qualification Requirement (Financial)	46



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
NTPC TALCHER-III 2x660 MW EPC

PE-TS-497-567-A001

Rev. No. 00

Date : 15.02.2024

PROJECT INFORMATION

SL. NO	DESCRIPTION	UOM	DETAILS
1	CUSTOMER	-	NTPC LTD.
2	CUSTOMER CONSULTANT	-	NTPC LTD.
3	METEOROLOGICAL DATA		
3.1	MAXIMUM TEMPERATURE	°C	47.2
3.2	MINIMUM TEMPERATURE	°C	5.5
3.3	MAXIMUM RELATIVE HUMIDITY	%	83
3.4	MINIMUM RELATIVE HUMIDITY	%	35
3.5	AVERAGE ANNUAL RAINFALL	mm	108.3
3.6	HEIGHT ABOVE MSL	m	139
3.7	THE BASIC WIND SPEED “Vb” AT TEN METER ABOVE THE MEAN GROUND LEVEL (AS PER IS: 875 (Part-3)	m/s	50
3.8	The risk coefficient “K1”		1.08
3.9	Category of terrain		Category-2
4	ELECTRICAL DATA		
4.1	AMBIENT TEMPERATURE FOR DESIGN OF ELECTRICAL EQUIPMENT	°C	50
4.2	RATED FREQUENCY	Hz	50
4.3	FREQUENCY VARIATION	%	(+) 3 to (-) 5
4.4	AC VOLTAGE	V	415/3300
4.5	AC VOLTAGE VARIATION	%	415 V/240 V: +/-10; 3.3KV: +/- 6%
4.6	DC VOLTAGE	V	-
4.7	DC VOLTAGE VARIATION	%	-
4.8	FAULT LEVEL	KA/sec	Refer Electrical DataSheet



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660MW NTPC TALCHER TPP STAGE III

PE-TS-497-567-A001


Rev. No. 00

Date :05.01.2024

SCOPE

SCOPE OF THIS PACKAGE COVERS THE FOLLOWING:

SL. NO	PARAMETERS	REQUIREMENT
1	Supply Including Design, Engineering, Manufacturing of:	
a)	Main Supply	YES
b)	Commissioning Spares	YES
2	Painting	YES
3	Inspection & Testing	YES
4	Packing	YES
5	Transportation & Delivery To Site	YES
6	Erection & Commissioning	NO
7	Supervision of Erection & Commissioning	YES
8	Performance Guarantee (PG) Test	NO
9	Mandatory Spares	NO
10	O & M Service	NO
11	O & M Spares	NO

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP 2x660MW NTPC TALCHER TPP STAGE III	PE-TS-497-567-A001
		Rev. No. 00
		Date :05.01.2024
GENERAL TECHNICAL REQUIREMENT		
1	It is not the intent to specify herein all the details of design and manufacturing. Bidder shall ensure that the offered equipment(s) conforms in all respects to high standards of design, engineering and workmanship.	
2	Bidder shall also ensure that the offered equipment shall comply with all applicable statutory and regulatory requirements.	
3	In the event of any conflict between the requirements of two clauses of this specification, documents or requirements of different codes and standards specified, the more stringent requirement as per the interpretation of the owner shall apply.	
4	Drawing/document submission shall be through web based Document Management System (DMS) of BHEL. Bidder would be provided access to the DMS for drawing/document submission. Bidder to ensure internet connectivity of min speed of 2Mbps at their end.	
5	Drawings/ documents submitted by supplier at any stage shall be complete in all respects. Any incomplete drawing submitted shall be treated as non- submission with delays attributable to vendor. For any clarification/ discussion required to complete the drawings, the bidder shall depute his personnel to BHEL / Customer's Office as per the requirement for across the table submission/ finalizations of drawings.	
6	Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty eight (28) days prior to date of bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied after approval by the BHEL / customer.	
7	Bidder shall submit Quality Plan on compliance route in the event of order Inspection / testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc.	
8	In case, the bidder is sourcing the item/any component from outside India, the third party inspection shall be arranged by bidder at their cost and shall be deemed to be considered by the bidder in their offer.	
9	All equipment shall be provided with nameplates indicating the item number and service name. Name plates shall be of 304 Stainless steel plate and placed at a readily visible location. Nameplate of main equipment shall have enough information, which will be confirmed during engineering phase. Stainless steel nameplates for all instruments and valves shall be provided.	
10	All sub - vendors shall be subject to BHEL/ Customer approval in the event of order.	



TITLE

TECHNICAL SPECIFICATION

FOR

LUBE OIL PUMPS

(Specific Technical Requirements)

SPECIFICATION NO. PE-TS-497-567-A001

REV 00

DATE: 05.01.2024

1.0 SCOPE OF WORK

1.1 Design, engineering, manufacturing, inspection and testing at manufacturer's works, painting, supply/delivery duly packed at project site for pump & motor set duly coupled and unitised on a common base frame with coupling guard, foundation bolts, flanges, companion flanges with nuts bolts and gaskets, drip pan with plugged draining arrangement, strainer with flanges, companion flanges, nuts, bolts & gaskets, foundation bolts etc. along with commissioning spares and all accessories as indicated in the **Datasheet-A**.

1.2 Supervision of Erection & Commissioning: Applicable (refer point no.4.0)

2.0 TERMINAL POINT

- a) Suction strainer nozzle counter flange (suction side)
- b) Pump discharge nozzle's counter flange.

2.1 For electrical system, bidder's scope shall terminate at motor terminal box complete with cable glands/ lugs for power cabling. Also refer electrical scope between BHEL & Vendor given under **Electrical portion** of specification.

3.0 EXCLUSIONS

- 3.1 Power Cable
- 3.2 Motor starter in MCC
- 3.3 Local Push Button Station
- 3.4 Feeder for motor
- 3.5 Earthing of Pumps. However, earthing conductor is to be provided by the bidder.
- 3.6 Foundation & associated civil works.

4. SUPERVISION OF ERECTION & COMMISSIONING:

The erection of Lube oil transfer pumps and its accessories will be done by owner as per Erection Manual and check List to be provided by the bidder during detail engineering. However, the bidder shall make visit as per enquiry/PO for the supervision of erection, pre-commissioning & post- commissioning check-up, start-up, testing and trial runs of all the items covered under the scope of supply & Services.

The Scope of Supervision for Erection & commissioning: Tentatively following visits shall be planned by site team which shall be as follows: -

- Two visits (for all pumps with motor and strainer) of 7 days each for supervision for erection, pre-commissioning & post- commissioning check-up, start-up, testing and trial runs of all the items covered under the scope of supply & Services.
- The total lump sum price of visit & man days shall include travel expenses to & fro site, insurance (if applicable), boarding & lodging etc. at site including the supervision charges for erection, commissioning, performance testing or any other services at site. The no. of man days shall be decided from the day of actual commencement of supervision at site/availability of site for supervision activity excluding travel to & from site.

Note: Bidder shall be informed at least 10 days in advance for the requirement of visit at site. Visiting team shall consist of one or two experts as deemed necessary by the bidder.



**TECHNICAL SPECIFICATION FOR
LUBE OIL PUMP
(ELECTRICAL PORTION)**

2 X 660 MW TALCHER TPP

SPECIFIC TECHNICAL REQUIREMENTS: ELECTRICAL

1.0 EQUIPMENT & SERVICES TO BE PROVIDED BY BIDDER/ PURCHASER

- 1.1 Scope for supply, and erection & commissioning of various equipment forming part of electrical system for this package shall be as per "Electrical scope between BHEL and Vendor".
- 1.2 Bidder shall furnish all AC as well as DC loads required for the system at different voltage levels (e.g. 415V AC, 240 V AC, 220 V DC etc.) of all types such as motor feeders, supply feeders in PEM format along with the offer.

2.0 DOCUMENTS TO BE SUBMITTED ALONG WITH BID

- 2.1 Bidder shall confirm total compliance to the electrical specification without any deviation from the technical/ quality assurance requirements stipulated.
- 2.2 No technical submittal such as copies of data sheets, drawings, write-up, quality plans, type test certificates, technical literature, etc, is required during tender stage. Any such submission even if made, shall not be considered as part of offer.

STANDARD ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR**PACKAGE: LUBE OIL PUMPS (Supply Package)****PROJECT: 2 X 660 MW TALCHER TPP**

S.NO	DETAILS	SCOPE OF SUPPLY	SCOPE OF E&C	REMARKS
1.	Cable glands and lugs for equipments supplied by Vendor	Vendor	BHEL	1. Double compression Ni-Cr plated brass cable glands 2. Solder less crimping type heavy duty tinned copper lugs for power and control cables.
2	LT Motors with base plate and foundation hardware	Vendor	BHEL	Makes shall be subject to BHEL approval at contract stage.
3	Any other equipment/material/service required for completeness of system but not specified above (to ensure trouble free and efficient operation of the system).	Vendor	BHEL	


NOTES:

1. Make of all electrical equipments/items supplied shall be reputed make & shall be subject to approval of BHEL after award of contract.
2. All QPs shall be subject to approval of BHEL after award of contract without any commercial implication.


LOAD TITLE	RATING (KW / A)		UNIT (U)/STN (S)	Nos.		VOLTAGE CODE*	FEEDER CODE**	EMER. LOAD (Y)	CONT.(C)/ INTT.(I)	STARTING TIME >5 SEC (Y)	LOCATION	BOARD NO.	CABLE		BLOCK CABLE DRG. No.	CONTROL CODE	REMARKS	LOAD No.
	NAME PLATE	MAX. CONT. DEMAND (MCR)		RUNNING	STANDBY								SIZE CODE	Nos				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
CLEAN OIL TRANSFER PUMP	3.7 KW		-	1	-	D	U	-	-	-	TG hall							
DIRTY OIL TRANSFER PUMP	3.7 KW		-	1	-	D	U	-	-	-	TG hall							

- Note:**
- Bidder to confirm that the system provided by them would be catered by the above loads considered by BHEL. In case there is any variation; the same should be clearly stated in the technical offer. No changes would be admissible during detailed engineering stage.
 - Bidder to note that for the system being supplied by them, only the above loads will be provided. In case any other load is required the same would be derived /multiplied by bidder on their own from these feeders only.


NOTES: 1. COLUMN 1 TO 12 & 18 SHALL BE FILLED BY THE REQUISITIONER (ORIGINATING AGENCY); REMAINING COLUMNS ARE TO BE FILLED UP BY PEM (ELECTRICAL)
2. ABBREVIATIONS : * VOLTAGE CODE (7):- (ac) A=11 KV, B=6.6 KV, C=3.3 KV, D=415 V, E=240 V (1 PH), F=110 V (cc): G=220 V, H=110 V, J=48 V, K=+24V, L=-24 V
: ** FEEDER CODE (8):- U=UNIDIRECTIONAL STARTER, B=BI-DIRECTIONAL STARTER, S=SUPPLY FEEDER, D=SUPPLY FEEDER (CONTACTER CONTROLLED)

	LOAD DATA (ELECTRICAL)	JOB NO.	ORIGINATING AGENCY		PEM (ELECTRICAL)			
		PROJECT TITLE	2x660 MW NTPC TALCHER TPP STAGE III	NAME			DATA FILLED UP ON	
		SYSTEM	LUBE OIL PUMPS	SIGN.			DATA ENTERED ON	
		DEPTT. / SECTION	ELECTRICAL	SHEET 1 OF 1	REV. 00	DE'S SIGN. & DATE		

DATASHEET-A

	TECHNICAL SPECIFICATION & DATA SHEET FOR LUBE OIL TRANSFER PUMPS 2x660 MW NTPC TALCHER TPP STAGE III	Specification No.: PE-TS-497-567-A001
		Rev. No. 00
		Date : 03.01.2024
SPECIFICATION & DATA SHEET FOR LUBE OIL TRANSFER PUMPS		
A. GENERAL INFORMATION		
1	TYPE OF PUMP	GEAR PUMP WITH HELICAL/HERRINGBONE GEARS
2	SERVICE	CLEAN OIL/DIRTY OIL PUMP
3	FLUID TO BE FILTERED	TURBINE LUBE OIL (TURBINOL-46-HPC / SERVOPRIME 46-IOC)
5	QUANTITY (NOS.)	2
B. TECHNICAL PARAMETERS / DESIGN FEATURES		
4	DESIGN & MANUFACTURING STANDARD	API-676
5	TESTING STANDARD	HIS / VDMA 24284 , ACCURACY CLASS-2, GROUP-II
6	RATED CAPACITY	6600 LPH
8	RATED HEAD(kg/cm2)	2 kg/cm2
9	OPERATING PRESSURE (kg/cm2)	3 kg/cm2
10	DESIGN TEMPERATURE (NORMAL / MAX)	AMBIENT / 70 0 C
12	DESIGN PRESSURE OF THE PUMP BODY AND END COVERS - KG/CM2 (G)	6 kg/cm2
13	SIZE OF SCREEN MESH & WIRE DIA (MIN)	40 mesh & 34 SWG
14	LOCATION	INDOOR
15	DESIGN VISCOSITY OF OIL	28cSt for Capacity & 140cSt for Power Consumption
18	HIGHEST VISCOSITY	140cSt @ 20 °C
19	NORMAL VISCOSITY	48cSt @ 37.8 °C
21	LOWEST VISCOSITY	28cSt @ 50 °C
22	DENSITY	0.9 GM/CC AT 15 Deg C
23	SUCTION CONDITION AVAILABLE	FLOODED (MAX -4 MLC TO BE CONSIDERED)
24	SUCTION FLANGE	80 NB,ANSI B 16.5,SORF, CLASS #150
25	DISCHARGE FLANGE	80 NB,ANSI B 16.5,SORF, CLASS #150
	SUCTION / DISCHARGE PIPING CONNECTION	OD 88.9 X 5.49 / OD 88.9 X 5.49
26	RELIEF VALVE	BUILT IN
28	RELIEF VALVE CAPACTY	110% OF PUMP FLOW
29	RELIEF VALVE SET PRESSURE ADJUSTABLE	YES
30	MATERIAL OF CONSTRUCTION FOR RELIEF VALVE	
30A	SPRING	SPRING STEEL
30B	RELIEF VALVE COVER	CAST IRON IS 210 FG 260
30C	RELIEF VALVE BONNET	CAST IRON IS 210 FG 260
30D	SHAFT SEALING	MECHANICAL SEAL
31	TYPE OF COUPLING	FLEXIBLE
32	TYPE OF IMPELLER	HELICAL/HERRINGBONE GEAR
33	MATERIAL OF CONSTRUCTION OF PUMP	
33A	CASING AND END COVER	CAST IRON - IS 210 - FG260
33B	ROTOR/GEAR	EN-8/9
33C	SHAFT	SS316
33D	SEAL	MECHANICAL SEAL
33E	GASKET	NON-ASBESTOS
33F	BASE PLATE	MS TO IS 2062
34	COMMISSIONING SPARES	1 SET OF GASKETS/1 NO. GASKET COMPOUND TUBE, 1 NO. MECHANICAL SEAL
35	DUTY	INTERMITTENT

DATASHEET-A

	TECHNICAL SPECIFICATION & DATA SHEET FOR LUBE OIL TRANSFER PUMPS 2x660MW NTPC TALCHER TPP STAGE III	Specification No.: PE-TS-497-567-A001 Rev. No. 00 Date : 05.01.2024
SPECIFICATION & DATA SHEET FOR STRAINERS		
A. GENERAL INFORMATION		
1	TYPE OF STRAINER	DUPLEX TYPE STRAINER WITH CHANGE-OVER VALVE, SS ELEMENT MESH SIZE & BLOW DOWN VALVE
2	SERVICE	CLEAN OIL/DIRTY OIL/ DRAIN OIL
3	FLUID TO BE FILTERED	TURBINE LUBE OIL (TURBINOL 46-HPC / SERVOPRIME 46-IOC)
4	SIZE	80 NB
5	QUANTITY (NOS.)	2
B. TECHNICAL PARAMETERS / DESIGN FEATURES		
6	CAPACITY	6600 LPH
7	DESIGN PRESSURE (kg/cm ²)	4 kg/cm ²
8	OPERATING PRESSURE (kg/cm ²)	3 kg/cm ²
9	DESIGN TEMPERATURE (NORMAL / MAX)	AMBIENT / 70 0 C
10	OPERATING TEMPERATURE	20 DEG.C
11	SIZE OF SCREEN MESH & WIRE DIA (MIN)	40 mesh & 34 SWG
12	DUTY	INTERMITTENT
13	LOCATION	INDOOR
14	DESIGN VISCOSITY	140cSt @ 20 °C
15	NORMAL VISCOSITY	48cSt @ 37.8 °C
16	LOWEST VISCOSITY	28cSt @ 50 °C
17	SPECIFIC GRAVITY OF OIL	0.9
18	HYDRO-TEST PRESSURE	6 kg/cm ² (MIN. DURATION 30 MIN)
19	END CONNECTION	FLANGED ANSI B 16.5,SORF, CLASS #150
20	RATIO OF FREE STRAINING AREA TO INLET PIPE AREA	SHOULD BE > 6:1
21	MATERIAL OF CONSTRUCTION	
21A	STRAINER BODY/END PLATE	IS-1239/ 3589 (ERW)
21B	SCREEN	SS-316
21C	GASKETS	NON-ASBESTOS
22	ACCESSORIES TO BE PROVIDED	
22A	COMMON BASE PLATE (MS FABRICATED FROM IS 2062 PLATE) Common for pump & motor	YES
22B	COUPLING & COUPLING GUARD	YES
22C	FOUNDATION BOLTS & NUTS	YES
22D	FLANGES & COMPANION FLANGES	Yes, Class 150 lb, RF to ANSI B 16.5
22E	NUTS, BOLTS & GASKETS	YES
22F	LIFTING LUGS, EYE BOLTS ETC	YES
22G	NAME PLATE FOR ALL THE EQUIPMENT	YES

DATASHEET-A

TECHNICAL MOTOR DATASHEET

S.No.	Parameters	Requirement
1	Applicable Standards	1) Three phase induction motors : IS:325, IEC:60034, IS:12615, IS: 15999 2) Single phase AC motors : IS:996, IEC:60034 3) Energy Efficient motors : IS 12615, IEC:60034-30
2	Rated voltage	415V, 3 Phase
3	Frequency (Hz)	50Hz
4	Permissible variations for	
	a) Voltage	+/-10%
	b) Frequency	+3% & -5%
	c) Combined	10% (Sum of absolute values)
	System fault level at rated voltage	50KA for 1 sec
	Short time rating for terminal boxes	50KA for .25 sec
5	Type of motors	Continuous duty squirrel cage induction motor suitable for direct-on-line starting
6	Efficiency class	IE3 Class conforming to IS 12615 or IEC:60034-30
7	Design margin over continuous max. demand of the driven equipment (min)	10%
8	Starting requirement	
	a) Minimum permissible voltage as a percentage of rated voltage, at start to bring the driven equipment upto the driven equipment upto rated speed	(a) Below 110KW : Up to 85% of rated voltage (b) From 110 KW & upto 200 KW : Up to 80% of rated voltage
	b) Maximum locked rotor current	as per IS 12615
	c) Starting duty	Two hot starts in succession, with motor initially at normal running temperature.
	d) the locked rotor withstand time under hot condition at highest voltage limit	a) atleast 2.5 secs. more than starting time(for motors with starting time upto 20 secs. at minimum permissible voltage during starting b) atleast 5 secs. more than starting time(for motors with starting time more than 20 secs. and upto 45 secs. at minimum permissible voltage during starting c) more than starting time by at least 10% of the starting time(For motors with starting time more than 45 secs.at minimum permissible voltage during starting d) Speed switches mounted on the motor shaft shall be provided in cases where above requirements are not met.
	e) The ratio of locked rotor KVA at rated voltage to rated KW	(a) Below 110KW : 11.0 (b) From 110 KW & upto 200 KW : 9.0
9	Torque (percent of full load torque)	1] Accelerating torque at any speed with the lowest permissible starting voltage shall be at least 10% motor full load torque. 2] Pull out torque at rated voltage shall not be less than 205% of full load torque. It shall be 275% for crane duty motors.
10	Noise level (max.)	85dB(A)
11	Vibration shall be limited within the limits	as per IS:12075 / IEC 60034-14
12	Construction Features	
(i)	Enclosure Details	
	a) Degree of protection	i) Indoor motors - IP 55 ii) Outdoor motors - IP 55 (Additional Canopy to be provided)
	b) Method of ventilation	Totally enclosed fan cooled (TEFC) or totally enclosed tube or ventilated (TETV) or Closed air circuit air cooled (CACA) type.
(ii)	Insulation	Class F temperature rise limited to class -B
(iii)	Bearings	Grease lubricated ball or roller bearings for Horizontal motors Grease lubricated ball or roller bearings or combined trust and guide bearing for Vertical motors
(iv)	Winding Type	Electrolytic grade Copper conductor, Non hygroscopic, oil resistant, flame resistant Insulation.
13	Main terminal box	
(i)	Type	-Motor terminal box shall be detachable type and located in accordance with Indian Standards clearing the motor base- plate/ foundation. -Terminals shall be stud or lead wire type, substantially constructed and thoroughly insulated from the frame. - The terminals shall be clearly identified by phase markings, with corresponding direction of rotation marked on the non-driving end of the motor.
(ii)	DOP	same as motor
(iii)	Position when viewed from the non driving end	- Left hand side
(iv)	Rotation	90 Deg.
(v)	Space heater	Motors rated 30KW and above space heater required. Separate terminal box for space heaters & RTDs shall be provided.

(vi)	Cable glands and lugs	<p>-Motor terminal box shall be furnished with suitable cable lugs and double compression brass glands to match with cable used.</p> <p>Cable glands shall conform to BS:6121. Cable glands shall be made of heavy duty brass machine finished and nickel chrome plated. Thickness of plating shall not be less than 10 micron. All washers and hardware shall also be made of brass with nickel chrome plating Rubber components shall be of neoprene or better synthetic material and of tested quality.</p> <p>Cable lugs/ferrules shall be solderless crimping type suitable for power and control cables as per the DIN 46239. Aluminium solderless crimping lugs/ ferrules shall be used for Aluminium cables and Copper lugs/ferrules shall be used for Copper cables. Bimetallic washers or bimetallic type lugs shall be used for bimetallic connections.</p>
(vii)	DIMENSIONS OF TERMINAL BOXES FOR LV MOTORS:	
	Motor MCR in KW	Minimum distance between centre of stud and gland plate in mm
	a) UP to 3 KW	As per manufacturer's practice.
	b) Above 3 KW - upto 7 KW	85
	c) Above 7 KW - upto 13 KW	115
	d) Above 13 KW - upto 24 KW	167
	e) Above 24 KW - upto 37 KW	196
	f) Above 37 KW - upto 55 KW	249
	g) Above 55 KW - upto 90 KW	277
	h) Above 90 KW - upto 125 KW	331
	i) Above 125 KW-upto 200 KW	203
	j) For HT motors the distance between gland plate and the terminal studs shall not be less than 500 mm.	
(viii)	PHASE TO PHASE/ PHASE TO EARTH AIR CLEARANCE:	
	NOTE: Minimum inter-phase and phase-earth air clearances for LT motors with lugs installed shall be as follows:	
	Motor MCR in KW	Clearance
	a) UP to 110 KW	10mm
	b) Above 110 KW and upto 150 KW	12.5mm
	c) Above 150 KW	19mm
14	Earthing points (2 nos. on diagonally opposite sides) suitable for connection	GS Flat- 50 x 6 OR 25 X 6 OR 25 X 3
15	Paint shade	RAL 5012 (Blue)/Light grey finish No. 631 as per IS: 5 (subject to customer approval)
16	LIST OF TESTS FOR WHICH REPORTS HAVE TO BE SUBMITTED	
	a) The following type test reports shall be submitted for each type and rating of LT motor of above 100 KW only	
	1. Measurement of resistance of windings of stator and wound rotor.	
	2. No load test at rated voltage to determine input current power and speed	
	3. Open circuit voltage ratio of wound rotor motors (in case of Slip ring motors)	
	4. Full load test to determine efficiency power factor and slip	
	5. Temperature rise test	
	6. Momentary excess torque test.	
	7. High voltage test	
	8. Test for vibration severity of motor.	
	9. Test for noise levels of motor(Noise level for all the motors shall be limited to 85dB (A) except for BFP motor for which the maximum limit shall be 90 dB(A). Vibration shall be limited within the limits prescribed in IS/IEC 60034-14. Motors shall withstand vibrations produced by driven equipment. HT motor bearing housings shall have flat surfaces, in both X and Y directions, suitable for mounting 80mmX80mm vibration pads.)	
	10. Test for degree of protection and	
	11. Overspeed test.	
	12. Type test reports for motors located in fuel oil area having flame proof enclosures as per IS 2148 / IEC 60079-1	
	13. The type test listed above should have been conducted within 10 yrs from 06.06.2022. In absence of type tests reports or in case reports are not found to be meeting the specification/standards requirements, vendor shall conduct all such type tests without any commercial/delivery implication to BHEL according to the relevant standards and reports shall be submitted to the owner for approval.	
	14. For Motor rating upto 50KW, BHEL QP No.PE-QP-999-Q-006, REV -02 is to be followed & for Motor rating above 50KW, NTPC RQP, QP No. 0000-999-QVE-P-044, Rev. No. :4 is to be followed.	
	b) All acceptance and routine tests as per the specification and relevant standards shall be carried out. Charges for these shall be deemed to be included in the equipment price.	
	c) The type test reports once approved for any projects shall be treated as reference. For subsequent projects of NTPC, an endorsement sheet will be furnished by the manufacturer confirming similarity and "No design Change". Minor changes if any shall be highlighted on the endorsement sheet.	



TECHNICAL SPECIFICATION & DATA SHEET FOR LUBE OIL TRANSFER PUMPS
2x660 MW NTPC TALCHER TPP STAGE III

Specification No.: PE-TS-497-567-A001

Rev. No. 00

Date : 03.01.2024

DATASHEET-B

DATA TO BE FURNISHED BY SUCCESSFUL BIDDER AFTER ORDERING

PUMP

1	PUMP MODEL NO.	TO FURNISH BY BIDDER AFTER ORDERING
2	PUMP MAXIMUM FLOW (LPM) & CORRESPONDING HEAD (KG/CM2 (G))	TO FURNISH BY BIDDER AFTER ORDERING
3	RELIEF VALVE PRESSURE SETTING	TO FURNISH BY BIDDER AFTER ORDERING
4	ROTATION (VIEWED FROM PUMP SHAFT END)	TO FURNISH BY BIDDER AFTER ORDERING
5	SUCTION FLANGE LOCATION (TOP/END/SIDE) (AS VIEWED FROM DRIVE END)	TO FURNISH BY BIDDER AFTER ORDERING
6	DISCHARGE FLANGE LOCATION (TOP/END/SIDE) (AS VIEWED FROM DRIVE END)	TO FURNISH BY BIDDER AFTER ORDERING
7	RELIEF VALVE TYPE AND SIZE (NB)	TO FURNISH BY BIDDER AFTER ORDERING
8	VALVE, SETTING PRESSURE ADJUSTABLE (YES/NO)	TO FURNISH BY BIDDER AFTER ORDERING
9	IF YES, RANGE OF ANDJUSTABILITY	TO FURNISH BY BIDDER AFTER ORDERING
10	BEARING	
10.1	A) TYPE	TO FURNISH BY BIDDER AFTER ORDERING
10.2	B) NOS. PROVIDED	TO FURNISH BY BIDDER AFTER ORDERING
10.3	C) METHOD OF LUBRICATION	TO FURNISH BY BIDDER AFTER ORDERING
10.4	D) MATERIAL	TO FURNISH BY BIDDER AFTER ORDERING
11	TYPE OF COUPLING	TO FURNISH BY BIDDER AFTER ORDERING
12	BHP CONSUMED AT RATED VISCOSITY (AT PUMP SHAFT)	TO FURNISH BY BIDDER AFTER ORDERING
13	BHP CONSUMED AT MAX. VISCOSITY (AT PUMP SHAFT)	TO FURNISH BY BIDDER AFTER ORDERING
14	BHP CONSUMED AT MIN. VISCOSITY (AT PUMP SHAFT)	TO FURNISH BY BIDDER AFTER ORDERING
15	BHP CONSUMED AT THE R.V. SET PRESSURE (AT PUMP SHAFT) @ 48 CST	TO FURNISH BY BIDDER AFTER ORDERING
16	PUMP EFFICIENCY AT RATED CONDITION @ 48 cSt	TO FURNISH BY BIDDER AFTER ORDERING
16.1	MECHANICAL	TO FURNISH BY BIDDER AFTER ORDERING
16.2	VOLUMETRIC	TO FURNISH BY BIDDER AFTER ORDERING
16.3	OVERALL	TO FURNISH BY BIDDER AFTER ORDERING
17	MOTOR RATING AT 50 ° C AMBIENT (KW)	TO FURNISH BY BIDDER AFTER ORDERING
18	MOTOR R.P.M	TO FURNISH BY BIDDER AFTER ORDERING
18.1	WEIGHT OF	
18.2	PUMP	TO FURNISH BY BIDDER AFTER ORDERING
18.3	MOTOR	TO FURNISH BY BIDDER AFTER ORDERING
18.4	BASE PLATE	TO FURNISH BY BIDDER AFTER ORDERING
18.5	OTHER ACCESSORIES (PLEASE SPECIFY)	TO FURNISH BY BIDDER AFTER ORDERING
18.6	GENERAL ARRANGEMENT DRAWING WITH FOUNDATION DETAILS & PERFORMANCE CURVES	TO FURNISH BY BIDDER AFTER ORDERING

STRAINER

1	MAXIMUM PRESSURE DROP AT DESIGN VISCOSITY (KG/CM2)	TO FURNISH BY BIDDER AFTER ORDERING
2	CLEAN CONDITION	TO FURNISH BY BIDDER AFTER ORDERING
3	DIRTY CONDITION(50% BLOCKED)	TO FURNISH BY BIDDER AFTER ORDERING
4	FOUNDATION DETAILS OF THE STRAINER	TO FURNISH BY BIDDER AFTER ORDERING
5	WEIGHT OF STRANER ASSEMBLY	TO FURNISH BY BIDDER AFTER ORDERING

MOTOR DATA TO BE FURNISHED BY SUCCESSFUL BIDDER AFTER ORDERING


1. GENERAL		
i)	Manufacturer & Country of origin.	
ii)	Equipment driven by motor)	
iii)	Motor type	
iv)	Country of origin	
v)	Quantity	
2. DESIGN AND PERFORMANCE DATA		
i)	Frame size	
ii)	Type of duty	
iii)	Type of enclosure and method of cooling	
vi)	Type of mounting	
vii)	Direction of rotation as viewed from DE END	
viii)	Standard continuous rating at 40 deg.C. ambient temp. as per Indian Standard (KW)	
ix)	(A) Derated rating for specified normal condition i.e. 50 deg. C ambient temperature (KW)	
	(B) Rating as specified in load list/Maximum continuous load demand of driven equipment	
xi)	Rated speed at rated voltage and frequency	
xii)	At rated Voltage and frequency	
	a) Full load current (Amps)	
	b) No load current (Amps)	
xiii)	Power Factor at	
	a) 100% load	
	b) At duty point	
	c) 75% load	
	d) 50% load	
	e) NO load	
xiv)	Efficiency at rated voltage and frequency	
	a) 100% load	
	b) At duty point	
	c) 75% load	
	d) 50% load	
xv)	Starting current (amps) at	
	a. 100 % voltage	
	b. 85% voltage	
xvi)	Starting time with minimum permissible voltage	
	a. Without driven equipment coupled	
	b. With driven equipment coupled	
xvii)	Safe stall time with 110% of rated voltage	
	a. From hot condition	
xviii)	From cold condition	
	Torques :	
xix)	a. Starting torque at min. permissible voltage(kg-mtr.)	
	b. Pull up torque at rated voltage.	
	c. Pull out torque	
	d. Min accelerating torque (kg.m) available	
	e. Rated torque (kg.m)	
xx)	Stator winding resistance per phase (ohms at 20 Deg.C.)	
xxi)	GD ² value of motors	
xxii)	Locked rotor KVA input (at rated voltage)	
xxiii)	Locked rotor KVA/KW.	
xxiv)	Bearings	
	a. Type	
	b. Manufacturer	
	c. Self Lubricated or forced Lubricated	
	d. Recommended Lubricants	
	e. Guaranteed Life in Hours	
	f. Whether Dial Type thermometer provided	
	g. Oil pressure Gauge/switch	
	i. Range	
	ii. Contact Nos. & ratings	
	iii. Accuracy	
	xxv)	Vibration
		a) Velocity (mm/s)
	b) Displacement (microns)	
xxv)	Noise level (DB)	

3. CONSTRUCTIONAL FEATURES	
i)	Stator winding insulation
	a. Class & Type
	b. Tropicalised (Yes/No)
	c. Temperature rise over specified max.
	i. Cold water temperature of 38 DEG. C.
	ii. Ambient Air 50 DEG. C.
	d. Method of temperature measurement
	e. Stator winding connection
	f. Number of terminals brought out
ii)	Type of terminal box for
	a. stator leads
	b. space heater
	c. Temperature detectors
	d. Instrument switch etc.
iii)	For main terminal box
	a. Location
	b. Entry of cables
	c. Recommended cable size
	d. Fault level (MVA)
	e. No. of Eathing Pads
iv)	Temperature detector for stator winding
	a. Type
	b. Nos. provided
	c. Location
	d. Make
	e. Resistance value at 0 deg. C. (ohms)
vi)	Paint shade
vii)	Weight of(approx)
	a. Motor stator (KG)
	b. Motor Rotor (KG)
	c. Total weight (KG)
4. LIST OF CURVES	
i)	Torque speed characteristic of the motor
ii)	Thermal withstand characteristic
iii)	Starting. current Vs. Time
iv)	Starting. current Vs speed
v)	P.F. and Effi. Vs Load

NOTE :


1. SHEET - 3 & 4 of TECHNICAL DATASHEET SHOULD BE READ IN CONJUNCTION WITH SHEET - 1 & 2 of TECHNICAL DATASHEET.

2. DURING CONTRACT STAGE: SUPPLIER TO SIGN & STAMP SHEET - 1 & 2 OF TECHNICAL DATASHEET, AND APPEND DULY FILLED SIGNED & STAMPED SHEET -3 & 4 OF TECHNICAL DATASHEET FOR BHEL/CUSTOMER'S APPROVAL.

	MANUFACTURER/BIDDER/VENDOR NAME & ADDRESS		STANDARD QUALITY PLAN						SPEC. NO.: PE-TS-XXX-567-A001		DATE: XXXX			
									CUSTOMER:		QP NO.: PE-QAP-XXX-567-A001		DATE: 5.5.2020	
			PROJECT:		FO NO.: LATER		DATE: XXXX							
			ITEM: LUBE OIL PUMP			SYSTEM:			SECTION:		SHEET 2 OF 4			
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS		
1	2	3	4	5	6		7	8	9	*	**		10	
					M	C/N				D	M	C	N	

	SEALS													
1.8	ELECTRIC MOTOR	REVIEW OF ROUTINE TEST CERTIFICATE	MA	REVIEW	100%	100%	IS 325 /IEC -34 FOR EXPORT MOTOR	APPROVED DRAWING/DATA SHEET	ROUTINE TEST REPORT	√	P	V	-	
2.0	IN PROCESS INSPECTION													
2.1	ALL COMPONENT	WORKMANSHIP & FINISH	MA	VISUAL/MEASUREMENT	100%		MANUFACTURING DRAWING	MANUFACTURING DRAWING	IR	√	P	V	-	
		DIMENSIONS	MA	VISUAL/MEASUREMENT	100%		MANUFACTURING DRAWING	MANUFACTURING DRAWING	IR	√	P	V	-	
2.2	PUMP CASING, COVERS, RELIEF VALVES HOUSING & CURING OF PUMP CASING GASKETS	LEAK TIGHTNESS	CR	HYDRO TEST AT 2X MAXIMUM ALLOWABLE WORKING PRESSURE FOR 30 MINUTES	100%	100%	APPROVED DRAWING/DATA SHEET	NO LEAKAGE	IR	√	P	W	-	
2.3	GEARS/SCREW & SHAFT	INTERNAL DEFECTS	MA	DPT	100%		ASTM E 165	NO DEFECTS	IR	√	P	V	-	
2.4	GEARS/SCREW - INDUCTION HARDENING	HARDNESS	MA	HARDNESS MEASUREMENT	100%		APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	LAB REPORT	√	P	V	-	
3.0	SUB-ASSEMBLY /ASSEMBLY CONTROL/FINAL INSPECTION AND TESTING													
3.1	ROTOR ASSEMBLY	STATIC RESIDUAL DYNAMIC BALANCING	CR	STATIC RESIDUAL DYNAMIC BALANCING	100%		ISO -1940 GR 6.3	ISO -1940 GR 6.3	IR	√	P	V	-	
3.2	PUMP ASSEMBLY	COMPLETENESS	MA	VISUAL, MEASUREMENT	100%		APPROVED GA DRAWING	MANUFACTURING DRAWING	IR	√	P	V	-	
3.3	COMPLETE PUMP WITH JOB MOTOR	1. PERFORMANCE H V/S Q, H V/S p, PH VS PUMP EFFICIENCY	CR	PERFORMANCE TEST	100%	100%	HYDRAULIC INSTITUTE STANDARD OF USA	HYDRAULIC INSTITUTE STANDARD OF USA	TEST REPORT	√	P	W	-	PUMP TO BE TESTED WITH OIL OF VISCOSITY CLOSEST TO THE LUBE OIL

BHEL				BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Doc No:			
Prepared by:	S.K. Yadav	Name		Sign & Date	Name	Sign & Date	Name	Seal	
Reviewed by:	Sayan Roy	Checked by:	Ashish Panigrahi	Reviewed by:	R K Jaiswal	Reviewed by:			
		Reviewed by:				Approved by:			


	MANUFACTURER/BIDDER/VENDOR NAME & ADDRESS		STANDARD QUALITY PLAN						SPEC. NO: PE-TS-XXX-567-A001		DATE: XXXX			
									CUSTOMER:		QP NO.: PE-QAP-XXX-567-A001		DATE: 5.5.2020	
			PROJECT:		FO NO.: LATER		DATE: XXXX							
			ITEM: LUBE OIL PUMP			SYSTEM:			SECTION:		SHEET 3 OF 4			
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS		
1	2	3	4	5	6		7	8	9	*	**		10	
					M	C/N				D	M	C	N	

	AND STRAINER													@RATES VISCOSITY FOR PRESSURE @LOWEST VISCOSITY FOR CAPACITY @ HIGHEST VISCOSITY FOR POWER
	VIBRATION/NOISE	MA	MEASUREMENT	100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	RELIEF VALVE SET PRESSURE	MA		100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	LEAKAGE	MA	LEAK TEST	100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	TEMPERATURE	MA	MEASUREMENT	100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	OVERALL DIMENTIONS	MA	MEASUREMENT	100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	ORIENTATION	MA	MEASUREMENT	100%	100%	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	TEST REPORT	√	P	W	-		
	STRIP TEST	CR	VISUAL	100%	100%	NO VISIBLE DAMAGE	NO VISIBLE DAMAGE	TEST REPORT	√	P	W	-		
3.4	CLEANING , PROTECTION , PAINTING & PACKING	ACTIVITY COMPLIANCE	MI	VISUAL	100%	TECHNICAL /MFG SPEC FOR PACKING, APPROVED DRAWING FOR CLEANING PROTECTION AND PAINTING	TECHNICAL /MFG SPEC FOR PACKING, APPROVED DRAWING FOR CLEANING PROTECTION AND PAINTING	IR	√	P	V	-		

BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:	S.K. Yadav		Checked by:		Ashish Panigrahi
Reviewed by:	Sayan Roy		Reviewed by:		R K Jaiswal


BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No:			
	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN					SPEC. NO : PE-TS-XXX-567-A001	DATE: xx.xx.xxxx	
		CUSTOMER :					QP NO.: PE-QAP-XXX-567-A001(S)		DATE: 5.5.2020
		PROJECT:					PO NO.:LATER		DATE: xx.xx.xxxx
		ITEM: BASKET DUPLEX STRAINER			SYSTEM: LUBE OIL PUMPS		SECTION:		SHEET 1 OF 3

SL NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C/ N				D	M	C	
1.0	RAW MATERIAL & BOUGHT OUT ITEMS												
1.1	STRAINER BODY , FLANGE BOTTOM PLATE, TOP COVER	PHYSICAL AND CHEMICAL PROPERTIES	MA	LAB TEST	100%	-	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	LAB REPORT	√	P	V	
1.2	3 WAY VALVE HOUSING CASTING, BACKING PLATE	PHYSICAL AND CHEMICAL PROPERTIES	MA	LAB TEST	100%	-	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	LAB REPORT	√	P	V	
1.3	SCREEN	CHEMICAL PROPERTIES	MA	LAB TEST	100%	-	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	LAB REPORT	√	P	V	
2.0	IN PROCESS CONTROL												
2.1	WELDING PROCEDURE	CORRECTNESS /WELDING PARAMETERS	MA	REVIEW	100%	-	ASME SEC IX	ASME SEC IX	QW 482	√	P	V	
2.2	PQR & WELDERS QUALIFICATION	WELD SOUNDNESS	MA	PHYSICAL TEST/RT	100%	-	APPROVED WPS/APPROVED DWG	APPROVED WPS	QW 482	√	P	V	
2.3	WELD FIT UPS	DIMENSIONS & ALIGNMENT ORIENTATION	MA	MEASUREMENT VISUAL	100%	-	APPROVED DRAWINGS	APPROVED DRAWINGS	IR	√	P	V	
2.4	WELDMENTS -ROOT & FINAL RUN(AS APPLICABLE)	WELD DEFECTS	MA	PANETRATION TEST	100%	-	ASME E 165	NO DEFECT	IR	√	P	V	
2.5	ASSEMBLY OF INTERNAL BASKET	DIMENSION & FITTING OF INTERNAL	MA	VISUAL & PROPERFITMENT	100%	-	APPROVED DRAWING/DATA SHEET	APPROVED DRAWING/DATA SHEET	IR	√	P	V	
3.0	FINAL INSPECTION AND TESTING												
3.1		COMPLETENESS,	MA	VISUAL &	100%	-	APPROVED	APPROVED	IR	√	P	V	

BHEL					BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL						
ENGINEERING			QUALITY			Sign & Date				Doc No:			
Prepared by:	Sign & Date	Name	Checked by:	Sign & Date	Name	Seal				Reviewed by:	Sign & Date	Name	Seal
Reviewed by:		Sayan Roy	Reviewed by:		Ashish Panigrahi					Approved by:			
					R K Jaiswal								


	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO : PE-TS-XXX-567-A001		DATE: xx.xx.xxxx	
	CUSTOMER :						QP NO.: PE-QAP-XXX-567-A001(S)		DATE: 5.5.2020	
	PROJECT:						PO NO.:LATER		DATE: xx.xx.xxxx	
	ITEM: BASKET DUPLEX STRAINER		SYSTEM: LUBE OIL PUMPS		SECTION:		SHEET 2 OF 3			

SL NO	COMPONENT & OPERATIONS	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	*	**			
		CLEALNESS, DIMENSION OF SCRFEN & OTHER PARTS		MEASUREMENT			DRAWING/DATA SHEET	DRAWING/DATA SHEET						
		LEAK TIGHTNESS	MA	HYDRO TEST AT 1.5 TIMES THE DESIGN PRESSURE ; HOLDING TIME 30 MINUTES	100%	--	APPROVED DRAWING/DATA SHEET	NO LEAKAE	IR	√	P	V		
		FLOW V/S PRESSURE DROP TEST	MA	MEASUREMENT VISUAL	ONE/TYPE/ SET		APPROVED DRAWING/DATA SHEET	NO LEAKAE	IR	√	P	V		
3.2	CLEANING , PROTECTION , PAINTING & PACKING	ACTIVITY COMPLIANCE	MI	VISUAL	100%	--	TECHNICAL /MFG SPEC FOR PACKING,APPR DRAWING FOR CLEANING PROTECTION AND PAINTING	TECHNICAL /MFG SPEC FOR PACKING,APPR DRAWING FOR CLEANING PROTECTION AND PAINTING	IR	√	P	V		

NOTES:

1. In case of foreign supplier, all test certificates shall be furnished by the supplier, duly witnessed/verified by supplier's TPI.
2. Following to be noted for packing:
 - a. Material shall be packed suitably in order to avoid damage of paint and valve during transit and also during storage at site in tropical climate conditions for a period of 15-18 months.
 - b. Photographs of the packing just before dispatch for information of PEM.
 - c. The latest revisions/year of issue of all the standard indicated in the QP shall be referred.

BHEL					BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY		Sign & Date		Doc No:			
Sign & Date	Name		Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by:	S K Yadav		Checked by:	Ashish Panigrahi			Reviewed by:			
Reviewed by:	Sayan Roy		Reviewed by:	R K Jaiswal			Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO : PE-TS-XXX-567-A001		DATE: xx.xx.xxxx	
			CUSTOMER :				QP NO.: PE-QAP-XXX-567-A001(S)		DATE: 5.5.2020	
			PROJECT:				PO NO.:LATER		DATE: xx.xx.xxxx	
			ITEM: BASKET DUPLEX STRAINER		SYSTEM: LUBE OIL PUMPS		SECTION:		SHEET 3 OF 3	


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

3. Project specific QP will be prepared based on customer requirement.
4. BHEL reserves the right for conducting repeat test, if required



LEGENDS:

*RECORDS, IDENTIFIED WITH "TICK"(✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,
 ** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,
 P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE
 MA: MAJOR, MI: MINOR, CR: CRITICAL

BHEL					BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY		Sign & Date		Doc No:			
Sign & Date	Name		Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by:	S K Yadav		Checked by:	Ashish Panigrahi			Reviewed by:			
Reviewed by:	Sayan Roy		Reviewed by:	R K Jaiswal			Approved by:			


	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO :	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-Q-006, REV-02	DATE: 17.04.2020
		PROJECT:		PO NO.:	DATE:
		ITEM: AC ELECT. MOTORS UPTO 55KW (LV (415V))	SYSTEM:	SECTION: II	SHEET 1 of 2

S. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY				REMARKS
					6	C/ N				*	**			
1	2	3	4	5			M	C	N		D	M	C	N
1.0	ASSEMBLY	1.WORKMANSHIP	MA	VISUAL	100%	-	MFG. SPEC.	MFG. SPEC.	LOG BOOK		P	-	-	
		2.DIMENSIONS	MA	VISUAL	100%	-	MFG. DRG./ MFG. SPEC.	MFG. DRG./ MFG. SPEC.	LOG BOOK		P	-	-	
		3.CORRECTNESS COMPLETENESS TERMINATIONS/ MARKING/ COLOUR CODE	MA	VISUAL	100%	-	MFG.SPEC./	MFG.SPEC.	LOG BOOK		P	-	-	
2.0	PAINTING	1.SHADE	MA	VISUAL	SAMPLE	-	MFG. SPEC/ APPROVED DATASHEET	MFG. SPEC/ APPROVED DATASHEET	LOG BOOK	✓	P	V	-	
3.0	TESTS	1.ROUTINE TEST INCLUDING SPECIAL TEST	MA	VISUAL	100%	-	IS-325 / IS-12615/ APPROVED DATA SHEET	IS-325 / IS-12615/ APPROVED DATA SHEET	TEST/ INSPN. REPORT	✓	P	V*	-	* NOTE -1
		2.OVERALL DIMENSIONS & ORIENTATION	MA	MEASUREME NT & VISUAL	100%	-	APPROVED DRG/ DATA SHEET	APPROVED DRG/ DATA SHEET	TEST/ INSPN. REPORT	✓	P	V*	-	* NOTE -1 & NOTE-2

BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:	HEMA KUSHWAHA	HEMA KUSHWAHA	Checked by:		KUNAL GANDHI
Reviewed by:	PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:	 <small>Digitally signed by Ritesh Kumar Jaiswal, DN: cn=Ritesh Kumar Jaiswal, o=BHEL, ou=Quality, email=Ritesh.Kumar.Jaiswal@bhel.co.in, c=IN, date=2020.04.17 12:23:18</small>	RITESH KUMAR JAISWAL

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No:			
	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO :	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-Q-006, REV-02	DATE: 17.04.2020
		PROJECT:		PO NO.:	DATE:
		ITEM: AC ELECT. MOTORS UPTO 55KW (LV (415V))	SYSTEM:	SECTION: II	SHEET 2 of 2



		3.NAMEPLATE DETAILS	MA	VISUAL	100%	-	IS-325 / IS-12615 / APPROVED DATA SHEET	SAME AS COL. 7	TEST/ INSPN. REPORT	✓	P	V	-	
4.0	PACKING	SURFACE FINISH & COMPLETENESS	MA	VISUAL	100%	100%	AS PER MFG. STANDARD / (#)	AS PER MFG. STANDARD / (#).	INSPC. REPORT	✓	P	W	-	(#) REFER NOTE-8

NOTES:

1. Routine tests on 100% motors shall be done by the vendor. However, BHEL/ Customer shall witness routine tests on random samples. The sampling plan shall be mutually agreed upon.
2. For exhaust/ventilation fan motors of rating up to 1.5 KW, only routine test certificates shall be furnished for scrutiny.
3. In case test certificates for these tests on similar type, size and design of motor from independent laboratory are available, the same is valid for 5 years.
4. BHEL reserves the right to perform repeat test, if required.
5. After packing and prior to issue MDCC, photographs of items to be despatched shall be sent to BHEL for review.
6. In case of any changes in QP commented by customer at contract stage, same shall be carried out by bidder without any implication to BHEL/ Customer.
7. Project specific QP to be developed based on customer requirement.
8. For export job, BHEL technical specification for seaworthy packing to be followed.
9. Packing shall be suitable for storage at site in tropical climate conditions.
10. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) indicated in QP shall be referred.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,
 ** **M:** SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, **B:** MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, **C:** CUSTOMER, **P:** PERFORM, **W:** WITNESS, **V:** VERIFICATION, AS APPROPRIATE
MA: MAJOR, **MI:** MINOR, **CR:** CRITICAL
D: DOCUMENTATION

BHEL				BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Doc No:			
Sign & Date	Name	Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by:	HEMA KUSHWAHA	HEMA KUSHWAHA	Checked by:		KUNAL GANDHI				
Reviewed by:	PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:		RITESH KUMAR JAISWAL				

CLAUSE NO.

QUALITY ASSURANCE



MOTOR

TESTS/CHECKS TEMS/COMPONENTS	Visual	Dimensional	Make/Type/Rating /General Physical Inspection	Mech/Chem. Properties	NDT /DP/MPI/UT	Metallography	Electrical Characteristics	Welding/Brazing(WPS/PQR)	Heat Treatment	Magnetic Characteristics	Hydraulic/Leak/Pressure Test	Thermal Characteristics	Run out	Dynamic Balancing	Routine & Acceptance tests as per IS-4722 /IS- 9283/IS 2148/IEC60034/IEC 60079-II/IS-12615	Vibration	Over speed	Tan delta, shaft voltage & polarization index test	Paint shade, thickness & adhesion
Plates for stator frame, end shield, spider etc.	Y	Y	Y	Y	Y				Y										
Shaft	Y	Y	Y	Y	Y	Y			Y										
Magnetic Material	Y	Y	Y	Y			Y			Y		Y							
Rotor Copper/Aluminium	Y	Y	Y	Y			Y		Y										
Stator copper	Y	Y	Y	Y			Y		Y			Y							
SC Ring	Y	Y	Y	Y	Y		Y	Y	Y										
Insulating Material	Y		Y	Y			Y					Y							
Tubes, for Cooler	Y	Y	Y	Y	Y				Y		Y								
Sleeve Bearing	Y	Y	Y	Y	Y				Y		Y								
Stator/Rotor, Exciter Coils	Y	Y	Y				Y	Y											
Castings, stator frame, terminal box and bearing housing etc.	Y	Y	Y	Y	Y			Y											
Fabrication & machining of stator, rotor, terminal box	Y	Y			Y			Y	Y										
Wound stator	Y	Y					Y	Y											
Wound Exciter	Y	Y					Y	Y											
Rotor complete	Y	Y					Y						Y	Y					
Exciter, Stator, Rotor, Terminal Box assembly	Y	Y					Y												
Accessories, RTD, BTD, CT, Space heater, antifriction bearing, gaskets etc.	Y	Y	Y																

CLAUSE NO.

QUALITY ASSURANCE




Complete Motor	Y	Y	Y													Y	Y	Y	Y1	Y
----------------	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	---	---	---	----	---

Note:
 1. The manufacture is to furnish a detailed Quality Plan indicating the practices & Procedure followed along with relevant supporting documents during QP finalization. However, following methodology to be followed for Inspection Categorization:

Note for LT Motor:
i) Motor rating up to 50 KW: Inspection CAT- III : Acceptance of Motor up to 50 KW is based on COC of the Manufacturer and Main Contractor confirming as follows:
 "It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage frequency variation, hot starts, pull out torque, starting KVA/KW, temperature rise, distance between center of stud gland plate and tested in accordance with approved drawing /data sheets."
ii) Motor rating above 50 KW & less than 75 KW: Inspection CAT- II as per NTPC approved MQP: Acceptance of Motor rating above 50 KW & less than 75 KW is based on NTPC review of Routine Test inspection report as per IS:12615 - 2018 (including latest revision) duly witnessed by main contractor along with COC of the Manufacturer and Main Contractor confirming as follows:
 "It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage frequency variation, hot starts, pull out torque, starting KVA/KW, temperature rise, distance between center of stud gland plate, space heater and tested in accordance with approved drawing /data sheets."
iii) Motor rating 75 KW & above: Inspection CAT-I: As per NTPC approved MQP.

2. Additional routine tests for Flame proof motors shall be applicable as per relevant standard
 3. Makes of major bought out items for HT motors will be subject to NTPC approval.
 4. Y1 = for HT Motor / Machines only.
 5. For LT Motors, stator core stack length & grade, no load loss and winding resistance w.r.t. type tested motor for IE2/IE3 shall be checked/verified in addition to Compliance of relevant standard IS:12615/IEC requirement. In case actual results are not within the tolerance limit as declared by manufacturer during QP submission, the motor shall be subjected to efficiency test.

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP 2x660 MW NTPC TALCHER TPP STAGE III	PE-TS-497-567-A001		
		Rev. No. 00		
		Date :05.01.2024		
SUB-VENDORS - LUBE OIL TRANSFER PUMPS				
S.NO	ITEM	SUB-VENDORS	PLACE	REMARKS
1	LUBE OIL TRANSFER PUMPS	UT PUMPS & SYSTEMS LTD.	FARIDABAD	
		MATZ PUMPS PVT. LTD.	AHMEDABAD	
		DELTA PD PUMPS PVT LTD	MUMBAI	
		TUSHACO PUMPS PVT.LTD.	NEW DELHI	
2	DUPLIX STRAINERS	JAYPEE INDUSTRIES PVT. LTD.	NEW DELHI	
		MULTITEX FILTRATION ENGINEERS LIMITED,	NEW DELHI	
		OTOKLIN GLOBAL BUSINESS LIMITED	MUMBAI	
		SUNGOV ENGINEERING PVT. LTD.	CHENNAI	
		GRAND PRIX	FARIDABAD	
		TUSHACO PUMPS PVT LIMITED	NEW DELHI	SELF MAKE- SUPPLIED IN DADRI
		RELIABLE ENGINEERS		SUBSIDIARY OF MATZ PUMP: SUPPLY STRAINER IN ALL PROJECT. ONLY FOR LOP
3	MOTORS	ABB	FARIDABAD	UPTO 55KW
		ABB	BANGALORE	
		JYOTI LTD.	VADODARA	
		TIPM	JAPAN	UPTO 15 KW (NON FLAME PROOF)
		HYOSUNG	SOUTH KOREA	
		WEG	BRAZIL	
		HYUNDAI	SOUTH KOREA	
		LHP	SOLAPUR	
		CGL	AHMEDNAGAR	RQP, FOR FLAME PROOF MOTOR
		TMEIC	JAPAN (NAGASAKHI)	
		NGEF	BANGALORE	UPTO 15 KW
		BHARAT BIJLEE	MUMBAI	RQP, FOR FLAME PROOF ALSO
		KEC	BANGALORE/ HUBLI*	*UPTO 90KW, RQP, FOR FLAME PROOF ALSO
		MARATHON	KOLKATA	RQP (UPTO 690V & 600 KW) FOR FLAME PROOF ALSO
		ABB	SWEDEN	UPTO 55KW
		HAVELL	NEEMRANA	UP TO 90KW
		KAWAMATA	JAPAN	UP TO 75 KW
TIPS	JAPAN	UP TO 45KW		
4	PAINT	ASIAN PAINT		
		BERGER		
		KANSAI NEROLAC		
		JOTUN		
		SHALIMAR		
		JENSON & NICHOLSON (I) LTD		
		CDC CARBOLINE (I) LTD.		
		ADDISON PAINTS LTD		
		GRAND POLYCOAT		
		BOMBAY PAINTS		
		HEMPLE PAINTS (SINGAPORE)		
AKZONOBEL COATINGS				
NOTES				
<p>The make of Sub-vendor items shall be generally as indicated above which is subject to customer / BHEL approval during detail engineering. Make of any unlisted items shall be subject to customer / BHEL approval during detail engineering. For such items, bidder to furnish list of sub-vendors during detail engineering stage for Customer / BHEL's review and approval. Bidder shall furnish following supporting documentation within 1 month of placement of LOI. Thereafter no request for additional sub-vendor shall be entertained.</p> <p>a) Documentation to show that the equipment /system has been supplied for a plant of similar or higher capacity.</p> <p>b) Documentation in the form of certificate that the equipment/system has been operating satisfactorily for two years as on the scheduled date of bid opening. The successful bidder will get the makes of all items approved from Customer/ Consultant during detail engineering within two months of placement of LOI. The complete list will be necessarily be submitted within one month of placement of LOI to ensure timely placement of order for BOIs Bidder to assess the capability of their proposed sub-vendors in terms of preparation of drawings, calculations, documents, quality assurance, supply of material etc. as per project schedule before placing the order on them.</p>				



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660 MW NTPC TALCHER TPP STAGE III

PAINTING REQUIREMENT

Package	Condition	Surface Preparation	Primer Coat	Intermediate Coat	Final Coat
LOTP	Plain Area	Surface shall be degreased and prepared by wire brush / mechanical tool / sand blasting as per paint manufacturers guide lines to SA 2.5 finish	One coat of Zinc rich - Epoxy based Primer of 50 – 75 microns DFT shall be applied.	Intermediate Coat of Epoxy Based TiO ₂ pigmented polyamide cured paint of 50 – 75 microns DFT shall be applied.	One coat of High Solid (High Build) Epoxy Based paint of 110 Microns DFT. Thus a total DFT of 210 - 235 microns shall be achieved. Paint Shade : GREY to RAL 9002

Bidder to note Any change in painting specification at later date as per customer comments needs to be complied by bidder without any Commercial implication



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
NTPC TALCHER-III 2x660 MW EPC

PE-TS-497-567-A001

Rev. No. 00

Date :15.02.2024

PACKING REQUIREMENT

COMMON GUIDELINES FOR PACKING

1

GENERAL:

1.1

The Components/Assemblies need to be packed suitably to avoid physical damage & corrosion during transit & storage. This packing shall be suitable for different handling operations and for the adverse conditions during transportation and during indoor / outdoor storage of materials.

1.2

All the equipment shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at site till the time of erection. The Contractor shall be responsible for all loss or damage during transportation, handling and storage due to improper packing.

1.3


The identification marking indicating the name and address of the consignee shall be clearly marked in indelible ink on two opposite sides and top of each of the packages. In addition the Contractor shall include in the marking gross and net weight, outer dimension and cubic measurement.


1.4


All the equipments shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at Site till the time of erection. While packing all the materials, the limitation from the point of view of the sizes of railway wagons available in India should be taken account of. The CAS supplier shall be responsible for any loss or damage during transportation, handling and storage due to improper packing. The CAS supplier shall ascertain the availability of Railway wagon sizes from the Indian Railways or any other agency concerned in India well before effecting despatch of equipment. Before despatch it shall be ensured that complete processing and manufacturing of the components is carried out at shop, only restricted by transport limitation, in order to ensure that site works like grinding, welding, cutting & preassembly to bare minimum. The BHEL's Inspector shall have right to insist for completion of works in shops before despatch of materials for transportation.


1.5

Each package shall be accompanied by a packing note quoting specifically the name of the Contractor, the number and date of contract and names of the office placing the contract, nomenclature of contents and Bill of Material.

	<p style="text-align: center;">TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC</p>	<p>PE-TS-497-567-A001</p>
		<p>Rev. No. 00</p>
		<p>Date :15.02.2024</p>
2.	TYPES OF PACKING:	
	The following 5 types of packing have been standardized for packing of General Components/ Assemblies.	
a	OP' - Open Type.	
b	PP' - Partially Packed.	
c	CP' – Crate/Box Packing - Components/Equipment requiring physical protection.	
d	'CQ' - Case Packing – Machined components-Small & Medium Components/ Assemblies/ Equipment which require corrosion & physical protection.	
e	'CR' - Case Packing – Electrical/Electronic Components/ Assemblies, which require special packing viz. Water Proof, Shock Proof etc...	
3.	DESCRIPTION OF TYPES OF PACKING:	
	The various types of packing, as standardized above, are described below.	
3.1	'OP' - Open Type	
	In case, of components which are not affected by water & dust and do not require special protection, are generally not machined, shall be sent as open packages. However, these components may be sent in crates, wherever necessary.	
3.2	PP' - Partially Packed	
3.2.1	Components which need special protection at selected portions only shall be despatched partially packed. Machined surfaces should not be allowed to come directly in contact with the wood. Such surfaces should be protected with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene	
3.2.2	Film. All sharp corners and edges shall be protected by rubber mats to prevent damage to the polyethylene film.	
3.3	'CP' - Crate Packing	
	Assemblies/Components which need only physical protection from the point of view of handling shall be despatched duly packed in crates.	
3.4	'CQ' - Case Packing - Machined Components/Assemblies/Equipment	
3.4.1	Small and medium sized components/assemblies/equipment due to size/weight and to avoid handling and pilferage problems shall be packed in Case/Containers. Wherever required adequate quantity of silica gel or VCI Powder/Tablets, packed in thin muslin cloth cotton bags shall be suitably placed. Small machines/components of less weight shall be provided with suitable cushioning by Rubberised coir. The components inside the case shall be entirely covered with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene Film, wherever required. This may be prescribed for electronic parts/critical machined components/surfaces.	
3.4.2	For mechanical product like valves where motors are separately securely wrapped in polyethylene, the requirement of individual component wrapping shall be exempted.	

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC	PE-TS-497-567-A001
		Rev. No. 00
		Date :15.02.2024
3.5	CR' - Case Packing - Electrical & Electronic Components/Assemblies	
	Delicate components likely to be damaged e.g. Gauges, Instruments etc. are to be wrapped in waxed paper or polyethylene air bubble film and packed in cartons. Adequate quantity of Silica gel packed in cotton bags of 100grams each are to be suitably placed in the cartons. The cartons shall be entirely covered with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene Film before being packed in the cases. VCI Powder/Tablets can be used as an alternative to Silica Gel.	
4	PREPARATION OF PACKING CASES	
4.1	DIMENSIONS:	
a)	Thickness of planks for Front, rear, top and bottom sides and binding, jointing battens shall be 25/20mm +2/-3 mm as per applicable drawings of the respective units/manufacturers.	
b)	Width of all planks including the tongue shall be more than 125mm and after planing it shall be minimum 100mm.	
c)	Minimum number of planks shall be used for a shook.	
d)	Horizontal, vertical, diagonal planks shall be given for binding (number of such planks depend on the dimension of panel.	
e)	Width of binding planks shall be minimum 100mm.	
f)	Distance between any 2 binding planks shall be less than 750mm.	
g)	diagonal planks shall be used in between vertical binding planks when distance between inner to inner of vertical planks is more than 750mm	
h)	Distance of the outer edges of these planks from the edge of case shall be less than 250mm.	
i)	Diagonal planks are not required for top planks and width side, if the width of pallet is less than 750mm.	
4.2	HOOP IRON STRIPS	
	These are used for strapping the boxes. The width of the strips shall be 19+1mm and thickness 0.6+0.01mm. The material shall be free from rust. If sufficient nailing is done for bigger boxes, strapping need not be done.	
4.3	BRACKETS	
	These brackets are used for nailing to the corners of cubicle boxes. The brackets shall be of mild steel of thickness min 2mm and width 25+1mm. The brackets shall be of "L" shape, the length of each side being 100+2mm. Two holes shall be provided towards the end of each side for screwing /nailing.	

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC	PE-TS-497-567-A001
		Rev. No. 00
		Date :15.02.2024
4.4	MULTI LAYERED CROSS LAMINATED POLYTHELENE FILM	
	100GSM (Colourless) Multi Layered Cross Laminated Polythelene Film are used to make covers to the jobs individually. The cross lamination gives qualities of extra toughness, together with flexibility and lightness coupled with good weather resistance to ultra violet rays.	
4.5	RUBBERISED COIR:	
	The rubberized coir is used as cushioning material. For the packing of loose items,	
5	MULTI LAYER CROSS LAMINATED POLY FILM WHILE PACKING OF CUBICLES/CASING	
5.1	The inner surface of 4 sides of shoo's shall be nailed with Multi-layer cross laminated poly film (as per 4.4) using blue nails wherever 2 pieces of Cross laminated poly film are used, the joint shall have an overlap of minimum 20mm.	
5.2	The inner surface of top cover shall be nailed with Multi-layer cross laminated poly film. This sheet shall project outside on 4 sides by at least 100mm and shall be nailed properly on sides. Joining of sheets should have overlap of minimum 20mm.	
5.3	The cubicles shall be covered with Multi-layer cross laminated poly film.	
6	PACKING OF LOOSE ITEMS/SPARES	
6.1	Inner surfaces of all 6 sides shall be lined with Multi Layered Cross Laminated Polythelene Film (as per clause 5.4) using blue nails.	
6.2	Rubberized coir of minimum 25mm thickness and 100 mm width shall be nailed to inner surfaces of bottom and 4 sides of box.	
6.3	Internal packing: Items that go into the box shall be packed using 100GSM, (Colourless) Multi Layered Cross Laminated Polyethylene Film. Any space left between the job and the sides and the top of the box shall be filled with rubberized coir to get proper cushioning effect.	

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC	PE-TS-497-567-A001
		Rev. No. 00
		Date :15.02.2024
6.4	Certain items like transformers, reactors, breakers, etc., shall be bolted to the bottom of the box using bolts, nuts and washers.	
6.5	Silica gel held in cotton bags shall be kept at proper places in the box.	
6.6	Packing slip kept in polyethylene bag shall be placed in the box.	
6.7	Two numbers of hoop iron strips shall be strapped tightly on the case using clips.	
6.8	Stencil marking of various details and marking of various symbols shall be done as per BHEL instructions using indelible/non-washable marking ink.	
6.9	Loose items to be kept inside the cubicle/casing	
6.10	Other items which are given loose in addition to cubicle shall be packed in separate boxes.	

7 **TYPICAL PATTERN OF WOODEN BOX**

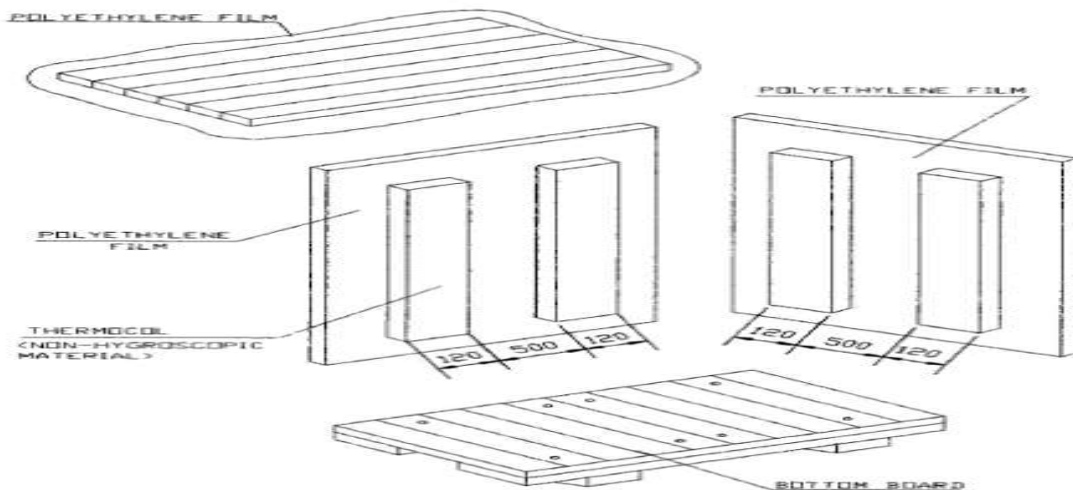
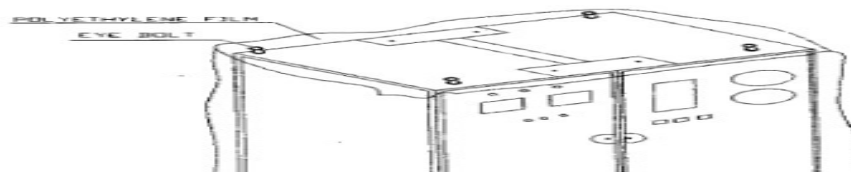


Figure 1





TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
NTPC TALCHER-III 2x660 MW EPC

PE-TS-497-567-A001

Rev. No. 00

Date :15.02.2024

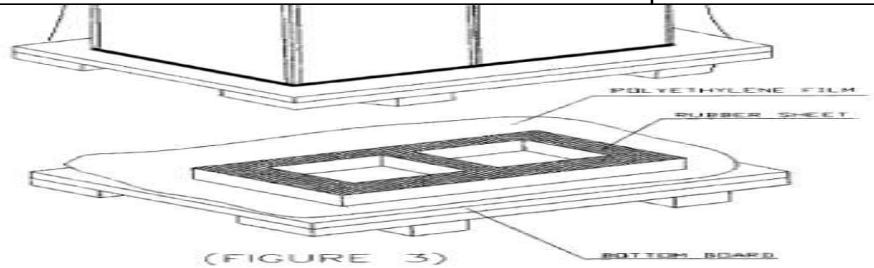



Figure 2

	<p style="text-align: center;">TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC</p>	PE-TS-497-567-A001
		Rev. No. 00
		Date :15.02.2024
8	SEALED PACKING:	
	<p>Components sub-assemblies and assemblies sensitive to climatic conditions shall be packed seal tight. All the openings of the sensitive components, sub-assemblies and assemblies shall be blanketed to prevent the ingress of dust and moisture. The components sub-assemblies and assemblies are completely covered with 2 layers of polyethylene sheet. All sharp corners and edges are to be protected by rubber mats to prevent the polyethylene sheet from damage. Top surface of the case shall be free from dents to prevent rain water pockets.</p>	
9	MARKINGS/STENCILINGS	
9.1	"HANDLE WITH CARE", "FRAGILE DO NOT TURN OVER".	
9.2	Besides the caution signs the product information's shall be stencilled of letters with 13mm to 50mm height.	
9.3	In case of consignment consists of more than one package, each package shall carry its package no as given in shipping list. All caution signs shall be stencilled in high quality full glossy out door finishing paint red in colour (AA56126). All other markings shall be carried out in black enamel.	
9.4	Caution signs & other markings shall be stencilled on both the end shooks & the side shooks.	
9.5	Caution sign (for slinging) shall be stencilled only on side shooks at the appropriate place.	
9.6	In case the size of package is small for using the stencils, then hand written letters/figures shall be allowed.	



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
NTPC TALCHER-III 2x660 MW EPC

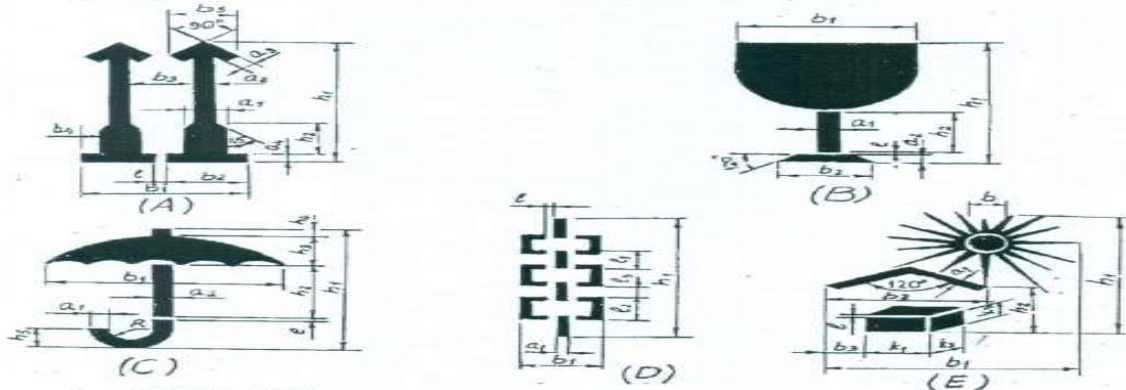
PE-TS-497-567-A001

Rev. No. 00

Date :15.02.2024

MARKINGS ON PACKING CASES

1. THIS PLANT STANDARD PRESCRIBES THE VARIOUS CAUTION SIGNS AND OTHER MARKINGS ON PACKING CASES.
2. DIMENSIONS IN THE TABLE 1 SHALL BE USED FOR MAKING STENCILS ONLY.



- A. UPRIGHT
- B. FRAGILE
- C. PROTECTION FROM FALLING OR CONDENSING MOISTURE.
- D. SLINGING POSITION
- E. PROTECTION FROM DIRECT RADIATIONS.



Figure 3

	BHEL - <unit> - <location> - <pin>			
CONSIGNEE				
MATERIAL				
CUSTOMER REF.			MO. NO.	
DESPATCH ADVICE NOTE NO			CASE NO	
DIMENSIONS(MM) L x B x H			NET WT -KGS	GROSS WT -KGS
SPECIAL INSTRUCTIONS	HANDLE WITH CARE - KEEP DRY DO NOT DROP - DO NOT TILT			

Figure 4 - TYPICAL MARKING PLATE (225 X 170)



Figure 5

Easy spares (Initial and O&M) Traceability and Identification at units and as well as at sites:

	TECHNICAL SPECIFICATION LUBE OIL TRANSFER PUMP NTPC TALCHER-III 2x660 MW EPC	PE-TS-497-567-A001
		Rev. No. 00
		Date :15.02.2024
10	STANDARD METHOD OF PACKING	
Table 1 - Standard Method of Packing		
S. No.	DESCRIPTION	CASE/CRATE/BUNDLE/BA
1	MOTOR	CASE
2	PUMP	CASE
3	STRAINER	CASE
4	COUPLING & OTHER ACCESSORIES (FASTNERS AND GASKET ETC)	CASE
5	COMPLETE CABLE GLANDS & LUGS, CABLES (AS APPLICABLE)	CASE
6	OPERATIONAL SPARES , MAINTENANCE TOOLS AND TACKLES (AS APPLICABLE)	CASE
7	ALL OTHER LOOSE ITEMS	CASE
Note:	Protective coating applied on machined surfaces should not be disturbed. The plastic covering should be put back carefully so that it prevents ingress of dust and moisture. Some packing may have vapour phase inhibitor (VPI) paper enclosed inside the packing cases. This should be restored to its original place as far as possible.	

BOQ		Doc No:	PE-PF-497-567-A001		
		Rev No:	0		
		Date of issue	05-01-2024		
NAME OF PROJECT:		2x660MW NTPC TALCHER TPP STAGE III			
NAME OF PACKAGE:		LUBE OIL PUMPS			
TECHNICAL SPECIFICATION:		PE-TS-497-567-A001			
S. No.	DESCRIPTION	UNIT	QTY		
	BREAK-UP OF SUPPLY PRICES GIVEN IN 2.1 OF MAIN SHEET				
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part comprising of design (i.e.preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles (as applicable), fill of lubricants & consumables, supervision of E&C, alongwith spares for erection, startup and commissioning as required, forwarding, proper packing, shipment and delivery at site complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	Lot	1		
2.1.1	Pump & motor set duly coupled and unitised on a common base frame with coupling guard, foundation bolts, flanges, companion flanges with nuts bolts and gaskets, drip pan with plugged draining arrangement with one set of commissioning spares comprising of one no. mechanical seal and one no. gasket compound tube/one set gasket for pump. Rated Capacity 6600 LPH and rated discharge pressure as 2 kg/cm2 (g), inlet/outlet size as 80NB/80NB	Nos.	2		
2.1.2	Strainer complete with flanges,companion flanges with nuts bolts and gaskets, foundation bolts (if applicable) with nuts and washers, 15 NB vent and drain connections provided with CS ball valves, 15 NB vent & drain pipe each 5 ft long with one set of commissioning spares comprising of one set gasket for strainer. Duplex Strainer - Rated Capacity 6600 LPH, inlet/outlet size as 80NB/80NB	Nos.	2		
2.1.3 (a)	Supervision of E&C including Supervision of assembly, erection and commissioning, including visit charges (should include travel expenses to/ fro site, visa/ insurance (if applicable)), boarding, lodging & other related exepenses for the total scope defined as per BHEL NIT & tender technical	Charges per visit No.	2		
2.1.3 (b)		Charges per man-day No.	14		



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660MW NTPC TALCHER TPP STAGE III

PE-TS-497-567-A001

Rev. No. 00

Date : 05.01.2024

DOCUMENTATION REQUIREMENT

DRAWINGS & DOCUMENTS TO BE SUBMITTED BY ALL THE BIDDERS ALONG WITH THE BID

SI. No.	DOCUMENT TITLE
1	PQR CREDENTIALS
2	COMPLIANCE SHEET

DRAWINGS & DOCUMENTS TO BE SUBMITTED BY SUCCESSFUL BIDDER AFTER AWARD OF CONTRACT ALONG WITH SUBMISSION SCHEDULE

SI. No.	DOCUMENT No.	DOCUMENT TITLE	FIRST SUBMISSION SCHEDULE
1	PE-V0-497-567-A001	Data sheet & GA of LOP	45 days from LOI
2	PE-V0-497-567-A002	Data sheet & GA of Strainer	
3	PE-V0-497-567-A003	Data sheet & GA of lube oil pump motor	
4	PE-V0-497-567-A004	QAP of Lube oil pump and strainer	
5	PE-V0-497-567-A005	O & M Manual of lube oil pumps	
BHEL/Customer comments/approval and Vendor Resubmission schedule			
BHEL /Customer Comment/Approval on First Submission			Within 7 days of Vendor submission/Resubmission
BHEL /Customer Comment/Approval on subsequent revision			Within 18 days of Vendor submission/Resubmission
Vendor Resubmission			Within 7 days of BHEL/ Customer Comments.



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660MW NTPC TALCHER TPP STAGE III

PE-TS-497-567-A001

Rev. No. 00

Date :05.01.2024

COMPLIANCE CERTIFICATE


1	It is hereby confirm that the technical specification (sheet 1 to 43) has been read and understood. We confirm compliance to the tender specification including any prebid clarification and amendments issued prior to techno-commercial bid opening without any deviation.
2	It is hereby declared that any technical submittals which was not specifically asked by BHEL in NIT shall not to considered as part of bid and need not be evaluated by BHEL.

Signature of authorised Representative

Name and Designation :

Name & Address of the Bidder

Date

	PROJECT: 2x660MW NTPC TALCHER TPP STAGE III PRE-QUALIFICATION REQUIREMENT- LUBE OIL TRANSFER PUMPS	DOC NO.: PE-PQ- 497-567-A001	
		DATE	05.01.2024
		REV NO	0

1.0	The following technical details are required from bidder to comply technical PQR: a) LUBE OIL PUMPS should be of GEAR type. b) Pump should be designed as per API-676.
2.0	Supplier should have capabilities for design/manufacturing and having in-house / out-sourced facility for these pumps meeting the requirements as per sl.no. 1.0 Above.
3.0	The supplier has to submit either of following supporting documents meeting above mentioned pre-qualifying requirement. a) Copy of minimum one (1) performance certificate in English from end user along with copy of related Purchase Order (PO) or letter of intent (LOI) or letter of award (LOA) or work order (WO) specifying that the product/equipment is running successfully for one (1) year from date of commissioning meeting the minimum pre-qualifying requirement. OR b) Minimum two PO/LOI/LOA/WO placed with a minimum gap of six (6) months from same purchaser meeting the minimum pre-qualifying requirement. OR c) Minimum one PO/LOI/LOA/WO after commissioning of first order from same purchaser meeting the minimum pre-qualifying requirement. OR d) In case, vendor has executed contract (s) for BHEL-PEM, internal assessment by BHEL-PEM shall be followed for evaluation for satisfactory performance. For this, vendor, vendor to submit the request along with relevant documents. OR e) Minimum three customer's /third party's inspection reports/ test certificates/ commissioning certificates meeting the minimum pre-qualifying requirements.
4.0	Bidder shall submit design documents to substantiate technical parameters specified in PQR, if the same is not mentioned in performance certificate/purchase order.
5.0	Minimum one (1) no. Purchase order shall be submitted which should not be more than seven (7) years old as on date of bid submission, for establishing continuity in business. This is over and above the requirement of PO mentioned at S.No. 3.0 above.
6.0	Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
7.0	Notwithstanding anything stated above, BHEL reserve the right to assess the capabilities and capacity of the bidder/ collaborator to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
8.0	Consideration of offer shall be subject to customer's approval of bidder, if applicable.
9.0	After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.
10.0	The bidder shall meet PQR based on its own credentials. Bid from joint venture company / Consortium bid is not acceptable.



TECHNICAL SPECIFICATION
LUBE OIL TRANSFER PUMP
2x660MW NTPC TALCHER TPP STAGE III

PE-TS-497-567-A001

Rev. No. 00

Date : 05.01.2024

PRE QUALIFICATION REQUIREMENT (FINANCIAL)



CORPORATE QUALITY ASSURANCE/ कॉर्पोरेट गुणवत्ता आश्वासन
SUB-VENDOR QUESTIONNAIRE/ सब-वेंडर प्रश्नावली

i.	Item/Scope of Sub-contracting उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता 	Details of Contact Person संपर्क व्यक्ति का विवरण (Name, Designation, Mobile, Email) (नाम, पदनाम, मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works where item is being manufactured प्रस्तावित उप-विक्रेता के कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है 	Details of Contact Person: संपर्क व्यक्ति का विवरण (Name, Designation, Mobile, Email) (नाम, पदनाम, मोबाइल, ईमेल)
iv.	Annual Production Capacity for proposed item/scope of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे के लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/scope of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का विवरण	
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	
2.	Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
3.	Details of change in Works address in past (if any) पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)	
4.	Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	
5.	Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
6.	Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their	Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू



CORPORATE QUALITY ASSURANCE/ कॉर्पोरेट गुणवत्ता आश्वासन
SUB-VENDOR QUESTIONNAIRE/ सब-वेंडर प्रश्नावली

	<i>qualification, machines & tools employed etc.)</i> (श्रमिकों की संख्या, उनकी योग्यता, मशीन और उपलब्ध उपकरण आदि)	नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक -एफ 2.2 पर संलग्न है। (यदि लागू हो)
7.	<i>Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc)</i> मैनपावर विवरण के साथ समय संगठन का चार्ट(डिजाइन / विनिर्माण / गुणवत्ता आदि)	<i>Details attached at Annexure – F2.3</i> विवरण अनुलग्नक – F2.3 में संलग्न है।
8.	<i>After sales service set up in India, in case of foreign sub-vendor(Location, Contact Person, Contact details etc.)</i> भारत में बिक्री सेवा की स्थापना के बाद, विदेशी उप-विक्रेता के मामले में(स्थल, संपर्क व्यक्ति, संपर्क विवरण आदि)	<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure – F2.4</i> विवरण अनुलग्नक -2.4 पर संलग्न है।
9.	<i>Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any</i> फ्लोचार्ट सहित विनिर्माण प्रक्रिया निष्पादन योजना, जिसमें आउटसोर्स प्रक्रिया, यदि कोई हो, सहित कच्चे माल से तैयार उत्पाद तक विनिर्माण के विभिन्न चरणों को दर्शाया गया हो,	<i>Details attached at Annexure – F2.5</i> विवरण अनुलग्नक - F2.5में संलग्न है।
10.	<i>Sources of Raw Material/Major Bought Out Item</i> कच्चे माल के स्रोत / खरीदे हुए मुख्य मद	<i>Details attached at Annexure – F2.6</i> विवरण अनुलग्नक - F2.6में संलग्न है।
11.	<i>Quality Control exercised during receipt of raw material/BOI, in-process , Final Testing, packing</i> कच्चे माल / खरीदे हुए मद, प्रक्रियाबद्ध, अंतिम परीक्षण, पैकिंग करते समय गुणवत्ता नियंत्रण	<i>Details attached at Annexure – F2.7</i> विवरण अनुलग्नक - F2.7 पर संलग्न है
12.	<i>Manufacturing facilities (List of machines, special process facilities, material handling etc.)</i> विनिर्माण सुविधा(मशीनों की सूची. विशेष प्रक्रिया सुविधाएं, सामग्री रख-रखाव आदि)	<i>Details attached at Annexure – F2.8</i> विवरण अनुलग्नक - F2.8में संलग्न है।
13.	<i>Testing facilities (List of testing equipment)</i> परीक्षण सुविधाएं(परीक्षण उपकरण की सूची)	<i>Details attached at Annexure – F2.9</i> विवरण अनुलग्नक – F2. 9 में संलग्न है।
14.	<i>If manufacturing process involves fabrication then-</i> यदि निर्माण प्रक्रिया में फेब्रिकेशन की गई है तो- <i>List of qualified Welders</i> पात्र वेल्डर की सूची <i>List of qualified NDT personnel with area of specialization</i> विशेषज्ञता के क्षेत्र सहित पात्र एनडीटी कार्मिकों की सूची	<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure – F2.10</i> विवरण अनुलग्नक - F2.10में संलग्न है। (if applicable) लागू / लागू नहीं
15.	<i>List of out-sourced manufacturing processes with Sub-</i>	<i>Applicable / Not applicable</i> लागू / लागू नहीं



CORPORATE QUALITY ASSURANCE/ कॉर्पोरेट गुणवत्ता आश्वासन
SUB-VENDOR QUESTIONNAIRE/ सब-वेंडर प्रश्नावली

<i>Vendors' names & addresses</i> सब-वेंडर द्वारा बाह्य स्रोतों (उनके नाम और पते सहित)से करवाएं गए निर्माण प्रक्रियाओं की सूची		<i>Details attached at Annexure - F2.11</i> विवरण अनुलग्नक - F2.10में संलग्न है। (if applicable) (यदि लागू हो)			
16. <i>Supply reference list including recent supplies</i> नवीनतम आपूर्ति सहित आपूर्ति संदर्भ सूची		<i>Details attached at Annexure - F2.12</i> विवरण अनुलग्नक - F2.12 में संलग्न है। (as per format given below) (नीचे दिए गए प्रारूप के अनुसार)			
<i>Project/ package</i> परियोजना / पैकेज	<i>Customer Name</i> ग्राहक का नाम	<i>Supplied Item (Type/Rating/Model /Capacity/Size etc)</i> आपूर्ति की गई वस्तु (प्रकार / रेटिंग / मॉडल / क्षमता / आकार आदि)	<i>PO ref no/date</i> पीओ संदर्भ सं. / तिथि	<i>Supplied Quantity</i> आपूर्ति की मात्रा	<i>Date of Supply</i> आपूर्ति की तारीख
17. <i>Product satisfactory performance feedback letter/certificates/End User Feedback</i> उत्पाद के संतोषजनक प्रदर्शन संबंधी फीडबैक पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता फीडबैक		<i>Attached at annexure - F2.13</i> अनुलग्नक F2. 3पर संलग्न है			
18. <i>Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product (similar or higher rating)</i> प्रस्तावित उत्पाद (एक समान या उच्च रेटिंग वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट विवरण, रिपोर्ट संख्या, एजेंसी, जांच की तारीख) का सारांश नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं है <i>Note:- Reports need not to be submitted</i>		<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure - F2.14</i> विवरण अनुलग्नक - F2.1 4में संलग्न है (if applicable) (यदि लागू हो)			
19. <i>Statutory / mandatory certification for the proposed product</i> प्रस्तावित उत्पाद के लिए वैधानिक / अनिवार्य प्रमाणीकरण		<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure - F2.15</i> (if applicable) (यदि लागू हो)			
20. <i>Copy of ISO 9001 certificate</i> आईएसओ 9001 प्रमाण पत्र की प्रति (if available)(यदि उपलब्ध हो)		<i>Attached at Annexure - F2.16</i> अनुलग्नक में संलग्न - F2.1 6 है			
21. <i>Product technical catalogues for proposed item (if available)</i> प्रस्तावित मद के लिए उत्पाद तकनीकी कैटलॉग (यदि उपलब्ध हो)		<i>Details attached at Annexure - F2.17</i> विवरण अनुलग्नक - F2.1 7 में संलग्न है			
<i>Name</i> : नाम		<i>Desig</i> : पद		<i>Sign:</i> हस्ता सद	<i>Date</i> : तिथि

Company's Seal/Stamp:- कंपनी की मुहर / मोहर -

PROJECT GROUP II
POWER SECTOR – PROJECT ENGINEERING MANAGEMENT
BHARAT HEAVY ELECTRICALS LIMITED

SPECIAL CONDITIONS OF CONTRACT (SCC) Rev.01
2X660 MW NTPC TALCHER TPP STAGE III (EPC)
(JOB NO. 497)

These Conditions shall be read and construed along with latest applicable (i.e. BOI or BOP) General Conditions of Contract (GCC) enclosed along with the tender enquiry. In case of any conflict or inconsistency, the conditions given in SCC shall prevail over the GCC.

Sl. No.	Title	Description
1.	Project Name	2X660 MW NTPC TALCHER TPP STAGE III (EPC)
2.	Nature of project & Type of Bidding	Mega Power Project Competitive Bidding
3.	Customer Order Ref No	CS-4540-001A-2-FC-NOA-7227 dated 27.09.2022 for Supply Contract CS-4540-001A-2-SC-NOA-7228 dated 27.09.2022 for Service Contract
4.	BHEL's Customer	NTPC
5.	NTPC Talcher GST No.	21AAACN0255D1ZA
6.	Customer Consultants	–
7.	Buyer and Paying Authority	a) For packages where BHEL PEM will issue the Purchase Order - BHEL PEM will be the paying authority. b) For packages where BHEL-PEM will issue only the LOA and Purchase Order shall be issued by BHEL PSWR - BHEL PSWR Site will be the paying Authority.
8.	Consignee Address (Bill To)	FOR SUPPLY PACKAGES: BHEL, Power Sector-Project Engineering Management, Power Project Engineering Institute, Plot No. 25, Sector-16A, Noida, Uttar Pradesh-201301. BHEL-PEM GSTIN: 09AAACB4146P2ZC FOR TURNKEY PACKAGES (where BHEL-PEM will issue only the LOA and Purchase Order shall be issued by BHEL-PSWR): Construction Manager, BHEL site office, 2x660 MW TALCHER TPP STAGE III P.O. - TALCHER, DISTRICT – ANGUL, ODISHA - 759101 BHEL-PSWR - GSTIN No.- 21AAACB4146P1ZR

9.	Delivery Address (Ship To)/BHEL Site office address	Construction Manager, BHEL site office, 2x660 MW TALCHER TPP STAGE III P.O. - TALCHER, DISTRICT – ANGUL, ODISHA - 759101
10.	Location of Plant	The site is located near Talcher town in ANGUL District of Odisha having latitudes 20°55' North and longitudes 85°25' East. The site is approachable from Banarpal-Talcher section of National Highway No. 23 at a distance of about 1 KM from Anand Bazar. Nearest railway station is at Talcher on Talcher-Cuttack section of North Eastern Railway at about 4 Kms. The nearest commercial airport is Bhubaneswar at about 90 Km by road.
11.	Mode of Dispatch	By Rail/Road/Sea on door delivery and freight pre-paid basis
12.	BHEL GSTIN Details	For Supply packages: BHEL-PEM is registered in the State of Uttar Pradesh with GSTIN 09AAACB4146P2ZC For Turnkey packages: BHEL-PSWR – GSTIN - 21AAACB4146P1ZR
13.	QR Code Affixing Requirement for SPMS (Mandatory Requirement)	<ol style="list-style-type: none"> 1. Vendor is mandatorily required to furnish detailed shipping/ packing list to BHEL in format as per Annexure 1 of this SCC 2. BHEL shall provide QR codes for each box/ bundle/gunny bag/ shipping section etc. There shall be one QR code for one box. Loose items needs to be bundled and one QR code shall be generated for each bundle. 3. Vendor is mandatorily required to print the generated QR in half of A4 size printer using a normal printer. One copy of this QR code must be attached to the respective box/bundle/gunny bag/shipping section etc. The other copy of the QR code must be enclosed with the documents sent along with the consignment. 4. After reaching at site, QR code shall be scanned at gate and material shall be received by site. 5. Further, vendor to ensure that <ol style="list-style-type: none"> a) All the items being dispatched in the consignment/LR are listed in the packing list. b) Proper precautions are taken while affixing to ensure

		<p>that the "Fixed QR Code" should not damage during transit.</p> <p>c) QR code is correctly fixed to all the box/ bundles being dispatched in consignment. Any delay arising thereof due to incorrect tagging/missing tags shall be to vendor's account.</p> <p>d) For loose items, one marker board needs to be sent for each bundle for fixing RFID tag at site.</p> <p>e) Material of unit 1 and unit 2 to be sent in different boxes with clear identification. Common items should have mention of unit 1. Same should be clearly identified in excel format.</p> <p>BHEL shall provide QR code within 2-3 days of submission of shipping/packing details (as per Annexure-1, _____) by vendor. Vendor to plan dispatches accordingly without affecting the delivery schedule.</p>
14.	Transit Insurance	<p>As per Notice Inviting Tender (NIT). In case, Transit Insurance is specified in BHEL Scope in NIT - Insurance details shall be provided by BHEL-PEM.</p> <p>For each dispatch, vendor shall inform the following to the Underwriter under intimation to BHEL-PEM and BHEL Site office:</p> <ul style="list-style-type: none"> • Policy No. • Consignee Name. • Consignment Details (items with their weights and value (in INR)). • Project Name and P.O. No. • LR No. and date, Dispatch origin and destination details, Invoice No. • Vendors to intimate the underwriters quoting the insurance Policy details.
15.	Dispatch intimation	<p>Yes, in writing, not less than 30 (Thirty) days prior to date of shipment and dispatch details to be sent to:</p> <ul style="list-style-type: none"> • BHEL Site office (address as mentioned at Sl. No. 9) • BHEL PEM Noida (address as mentioned in NIT for PO issued by PEM) • BHEL PSWR Nagpur (For PO Issued by BHEL PSWR)

16.	Demurrage charges	Demurrage charges shall be paid by supplier/vendor only. No claim shall be acceptable to BHEL in this regard.
17.	Unloading, Storage & Movement of material at site	<ul style="list-style-type: none"> • By BHEL site office for supply packages (where only supply is in vendor's • By vendors for Turnkey (where Supply and E&C is in vendor scope) <p>Note: The Supplier shall furnish LR wise Gross Wt. of the consignment for the purpose of handling the consignment by BHEL Site Contractor. Please note that unloading of materials at Site shall sometimes may take 3-5 days. As such, transporters to be advised suitably before dispatch of materials in this regard. Also, no claim on a/c of delay in unloading before this period shall be entertained. Prior intimation as mentioned in sl. no. 15 above is solicited.</p>
18.	Taxes & Duties (For Domestic Vendor)	As per Notice Inviting Tender (NIT).
19.	Taxes & Duties (For Order Directly to Foreign Bidders)	In case of foreign vendors, quoted prices & Dispatches shall be on C & F Port –Chennai Basis and Taxes & Duties in the country of dispatch shall be borne by Foreign vendor.
20.	Inspection Agency	<p>Inspection of packages shall be carried out by agency as per below Inspection category of packages:</p> <p>Cat-I: Inspection shall be done jointly or separately by NTPC and BHEL or BHEL's TPIA.</p> <p>Cat-II: Inspection shall be done by BHEL only.</p> <p>Cat-III: Certificate of Compliance shall be furnished by Vendor.</p> <p>Note: Please note, for Cat I & II items BHEL reserve the right to carry inspection by themselves or through nominated third party inspection agency (TPIA). Third party inspection agency, if any, shall be informed after award of contract.</p>

21.	Inspection procedure	<p><u>For Domestic supplies:</u></p> <p>As per Notice Inviting Tender (NIT).</p> <p><u>For Foreign supplies</u></p> <p>In case of Foreign supplies, if NTPC approved 3rd party inspection agency does not participate in the inspection, test certificates & inspection reports duly accepted by the agreed Inspection agency shall be submitted in soft copy to BHEL-PEM. The same shall be reviewed by BHEL PEM and then, sent to NTPC for clearance.</p> <p>The dispatch clearance (MDCC) by NTPC/ BHEL as applicable shall be given to the foreign supplier or representative in India after acceptance of above test certificates and photographs as per above.</p>
22.	Material Dispatch Clearance Certificate (MDCC) Issuing Agency	<p>For Cat-I item, MDCC shall be issued by NTPC and it's the responsibility of vendor to arrange MDCC from them and furnish original MDCC to BHEL.</p> <p>For Cat- II & Cat-III items, MDCC shall be issued by BHEL However, the vendor shall furnish all requisite documents like Material Test Certificates, Inspection Reports etc. required for obtaining of NTPC MDCC by BHEL.</p>
23.	Mandatory Spares	<p>Supplies of mandatory spares will be separate from main supply and separate manufacturing clearance shall be given for mandatory spares.</p> <p>Delivery of mandatory spares shall be as per NIT. In case if delivery of mandatory spares is not specified in NIT, same shall be within four (04) months from BHEL Manufacturing Clearance.</p> <p>MRC payment for mandatory spares shall be released after handover of respective mandatory spares to customer.</p>
24.	Construction Facilities to Vendor	<p>Construction Power: Construction power shall be made available for Erection Work free of cost.</p> <p>Construction water: Construction water shall be made available for Erection Work free of cost.</p>

25.	Storage Infrastructure by Vendor	For Turnkey packages: <ul style="list-style-type: none">• Vendor shall compulsory make covered storage shed of minimum size of 15 feet x 15 feet for storage of valuable Electrical/ Electronic items/ Instruments etc.• Vendor shall compulsory make office of size 10 feet x 10 feet for site Engineer/ Staff along with facility of Computer/ Laptop/ Printer for protocol preparation and submission to BHEL.• (c) Alternately, vendor can provide container of suitable size for above purpose, i.e. (a) and (b).
26.	Safety Officer and Quality Engineer by Vendor	<p>For Turnkey packages, vendor shall deploy one number Safety Officer and one number Quality Engineer during total E&C period.</p> <p>In case of failure of above, BHEL shall deploy it and appropriate charges shall be deducted from vendor due payments.</p> <p>HSE plan for site operation by vendor is enclosed as per Annexure 2 to SCC -NA</p>

27.	Packing Identification & Marking [If not specified in NIT]	<p>Each box shall be marked with Capital Letters in "Red" indicating the PEM SUPPLY (Main Supply/Commissioning Spares/Mandatory Spares) for 2x660 MW NTPC TALCHER STAGE III EPC.</p> <p>NOTE: Main supply item and items for commissioning spares must be packed separately. Each package delivered under the Contract shall be marked by supplier and such marking must be distinct and in English language (all previous irrelevant markings being carefully obliterated).</p> <p>Such marking shall show the description and quantity of contents, the name and address of consignee, the Gross weight and Net weight of the package, the name of the Supplier, PEM P.O. reference number, with a distinctive number of mark sufficient for purposes of identification.</p> <p>Besides above necessary, packing shall bear a special marking 'TOP', 'BOTTOM', 'DO NOT TURN OVER', "KEEP DRY", "HANDLE WITH CARE", etc</p> <p>IMPORTANT: -</p> <ul style="list-style-type: none"> • Two copies of respective standard manufacturer's erection instruction/operation instruction manual shall be kept in each package / container for immediate reference by BHEL site and same shall be reflected in packing slip also. • The Packing list details for the consignment must be put inside the Box/Boxes. <p>Items like pumps, Valves, Hoists, Cranes etc shall essentially have O&M Manuals and E&C guidelines duly enclosed in the packing box. Certificate to such effect shall also be reflected in packing slip.</p> <p>Mandatory spares shall be properly packed separately in separate box painted in Red, indicating Mandatory Spares in bold letters and each spare shall be properly tagged giving details i.e. item number of the equipment in line with the CUSTOMER approved BBU for Mandatory spares & Number per item (to match the description given in the packing slip) to facilitate their-proper identification by end customer/ BHEL Site. One Copy of Packing list must be put inside the Box along with</p> <p>Manufacturing drawing no. reference, Catalogue reference etc.</p>
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28.	Submission of Final Drgs/ Docs along with O&M Manual, Type Test Certificates (if any)	No. of O&M Manuals As per applicable GCC / Tender documents/Kick-off meeting. If not specified anywhere, Vendor to submit final approved O&M Manual in 12 Hard copies and 4 No of CD ROMs/DVDs/Pen drive.
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Enclosures :-

- Annexure 1 :- The format for details required from vendor for QR code generation
- ~~• Annexure 2 :- HSE Site plan for site operation~~

Ashutosh
Sharma

Digitally signed by
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Annexure-I

QR Code (provided by BHEL)

All the dispatches of TALCHER code shall have "QR" code fixed, as a mandatory requirement.

1. Vendor is mandatorily required to furnish detailed shipping/ packing list to BHEL in format as per Enclosed annexure
2. BHEL shall provide QR codes for each box/bundle/gunny bag/ shipping section etc. There shall be one QR code for one box. Loose items need to be bundled and one QR code shall be generated for each bundle.
3. Vendor is mandatorily required to print the generated QR in half of A4 size printer using a normal printer. One copy of this QR code must be attached to the respective box/bundle /gunny bag/shipping section etc. The other copy of the QR code must be enclosed with the documents sent along with the consignment.
4. After reaching at site, QR code shall be scanned at gate and material shall be received by site.
5. Further, vendor to ensure that –
 - a) All the items being dispatched in the consignment/LR are listed in the packing list.
 - b) Proper precautions are taken while affixing to ensure during transit.
 - c) QR code is correctly fixed to all the box/ bundles being dispatched in consignment. Any delay arising thereof due to incorrect tagging/missing tags shall be to vendor's account.
 - d) For loose items, one marker board needs to be sent for each bundle for fixing RFID tag at site.
 - e) Material of unit 1 and unit 2 to be sent in different boxes with clear identification. Common items should have mention of unit 1. Same should be clearly identified in excel format.

Note: BHEL shall provide QR code within 2-3 days of submission of shipping/packing details (as per SCC Annexure) by vendor. Vendor to plan dispatches accordingly without affecting the delivery schedule. Material shall be dispatched only after issue of "QR" code by BHEL

SNO	Customer	Contract No	Type	PGMA	PGMA Des	DU	DU Des	Dispatch Qty.	Unit	BBU No.	BBU Sno	Box No.	Packing List No.	Material Required For (Set-1/ Set-2)	NS	Remarks
	NTPC	CS-4540-001A-2-FCCOA-7227	<BOI * > <*BHEL shall indicate whether item is BOI or BHEL Inhouse manufacture >	<Vendor to fill BHEL Item Code>	<Vendor to fill Package name>	BHEL PSPEM NOIDA	<Vendor to fill up Item wise description>	<Vendor to fill up dispatch quantity>	<Vendor to fill up UOM>	to fill up BBU No. provided by BHEL>	<Vendor to fill up BBU No. provided by BHEL>	<Vendor to fill up box no.>	<Vendor to fill up Packing list number>	Vendor to indicate Material is for Unit-1 or Unit-2	<Nature of Supply :- Vendor to indicate whether Item is Main supply or mandatory spares>	Remarks if any