

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23



A Maharatna Company
ISO 9001 Company
ISO 50001 Company

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Limited

(A Government of India Enterprise)
Tiruchirappalli – 620 014

WORKS CONTRACTS MANAGEMENT

NOTICE INVITING e-TENDER

Dear Sir/ Ma'am,

Ref : **Tender No. 9472100083 dt.30.07.2021**

Subject : Two-part **e-Tender** inviting techno-commercial and price bids for **Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23.**

Kindly submit your competitive offer for the above subject work as per the tender terms and conditions given in the tender document through e-procurement portal <https://eprocurebhel.co.in> only.

1.	Scope of work	Scope of work and technical terms and conditions as per Techno-Commercial Part-I bid.
2.	Location of work	BHEL Trichy.
3.	Period of contract	TWO YEARS from date of Award of work at BHEL, Trichy.
4.	CRITERIA FOR AWARD OF WORK	Package-wise L1 (lowest bidder)
5.	Last date/ time for receipt of tender	10:00 Hrs on dt. 10.08.2021
6.	Date/ time of opening of Techno-commercial bids	14:00 Hrs on dt. 10.08.2021 Change in opening date, if any, will be intimated later.
7.	Date of price bid opening	The date/ time of price bid opening will be intimated to the techno-commercial qualified tenderer separately.
8.	Total EMD amount	₹ 17,990/- (Seventeen Thousand, Nine Hundred Ninety Rupees)
9.	Contact details for queries related to tender	Sathese M, Dy.Manager/ WCM; 0431 257 5438; e-mail: msathese@bhel.in Balamurugan M, Manager/ WCM; 0431 257 6757; e-mail: mbn@bhel.in
10.	Working Area Contact details	Rahul Yadav, Sr Engineer/ ATP Spl Projects OP&C e-mail : rahulyadav@bhel.in / Ph: 0431 257 5197

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

This two-part e-tender consists of the following:

Part – I (A) :: Pre-qualification Bid

1. Earnest Money Deposit (EMD)

Part – I (B) :: Techno-Commercial Bid

2. Qualifying criteria for the contract
3. Scope of work and technical terms & conditions
4. General terms & conditions of the contract
5. Annexures (I, II)

Part – II :: Price Bid (Vendor to quote the price in e-procurement portal as per reference price bid format enclosed as Annexure-III)

Special Instructions to the bidders:

- EMD should be submitted as per Part-I(A)/Prequalification Bid/EMD (including EMD waiver, if any). Techno-commercial bid will be considered only, if the Part-I(A)/Prequalification Bid/EMD is valid. EMD in any other form and tender without EMD will be summarily rejected.
- In case of offline payments, the hardcopies of Earnest Money Deposit (EMD) document/ DD submitted to WCM/BHEL and the soft-copies uploaded at the time of online bid submission should be the same, otherwise the tender will be summarily rejected.
- Bidder should arrange for the EMD as specified in the tender. The original should be posted/couriered/given in person in a sealed cover super scribing 'Tender number/date/Part-I(A)/EMD' to the Tender Inviting Authority, within the bid submission date and time for the tender.
- Any deviation to this tender terms & conditions, and schedules of this tender will lead to total rejection of the offer submitted.
- Should a tenderer find discrepancies or omissions in the tender documents, or should there be any doubt as to their meaning, he should at once address the authority inviting the tender, for clarification well before the due date, so as to submit his tender in time. No extension of time shall be given for submission of the tender on any account.
- Rates should be quoted as per the Work / Rate schedule (Price bid/Part –II). Rates quoted in any other form will not be accepted, and will be rejected.
- The tender must be signed separately and legibly by Partner/ Director of the Firm or by the person holding the Power of Attorney on behalf of the Firm concerned. In the latter case, a copy of Power of Attorney, duly attested by a Notary Public must accompany the tender.
- If a tenderer deliberately gives wrong information in his tender or creates conditions favourable for the acceptance of his tender, the BHEL will reject such tender at any stage.
- Words imparting singular number shall be deemed to include plural number and vice-versa where the context so requires.
- Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the Contractors who resort to canvassing will be liable for rejection.
- Should a Tenderer's or a Contractor's or in the case of a firm or company of contractors/any of its shareholder's or shareholder's relative is employed in BHEL, the authority inviting the tenders shall be informed in writing of this fact at the time of submission of the tender, failing which the tender may be disqualified, or if such fact subsequently comes to light, the contract may be cancelled.
- The tender schedule, and the tender shall be deemed to form an integral part of the contract to be entered into for this work.

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- Tenderer shall sign the tender documents for having accepted the conditions and upload in e-procurement portal.
- Tender can be cancelled at any stage due to unavoidable circumstances.
- Kindly ensure that the total size of the scanned documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However, it shall be sole responsibility of bidder that the uploaded documents remain legible.
- Bidder are advised not to wait till the last minutes or last few seconds w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- Bidders are advised take due care while quoting the technical and price bids forms in the e-procurement system. Bidders, those who tampers with tendering procedure affecting ordering process **or** misusing the technical information of the tender document **or** withdrawing their offer after price bid opening, will be penalized as per BHEL guidelines on suspension of business dealings with suppliers/ contractors. Abridged version of the guideline is available in www.bhel.com.
- It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
- The bidder has to upload the scanned copy of all the mentioned original documents (in colour) during online bid-submission.
- In case you are not in a position to submit the offer, please send letter suitably specifying the reasons thereof.

Thanking you,

For **Bharat Heavy Electricals Limited**

M Sathese

Dy. Manager / Works Contracts Management,
3rd floor, 24 Building,
B.H.E.L., Tiruchirappalli – 620 014, Tamilnadu.
Phone: 0431-2575438,
Email: msathese@bhel.in

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23
PART – I (A)

PRE-QUALIFICATION / EMD

1 EARNEST MONEY DEPOSIT (EMD)

1.1 EMD AMOUNT: Refer page 1 of this tender document

1.1.1 EMD given by all unsuccessful tenderers will be refunded after award of contract.

1.1.2 EMD shall not carry any interest.

1.1.3 EMD of successful tenderer will be retained as part of Security Deposit.

1.2 EMD WAIVER DOCUMENTS (Documents shall be notarized/ attested by gazetted officer)

1.2.1 EMD is waived off for MSE (Micro and Small Enterprises only) vendor by submitting UAM along with CA Certificate (as per Annexure-II of this tender document) issued for latest financial year ending on 31st March 2020 (FY 2019-20) or later. (or) **Udyam Registration certificate** or Medium Enterprises, graduated from its original category (Micro/Small) within the period of 3 years from the date of graduation by additionally submitting CA Certificate FY 2019-20. (or)

1.2.2 EM-II with deemed validity of five years from the date of issue of EM-II as on date of technical bid opening. (or)

1.2.3 EM-II along with latest CA certificate (as per Annexure-II of this tender document) issued for latest financial year ending on 31st March 2019 or later where deemed validity of five years is expired. (or)

1.2.4 Valid NSIC registration certificate as on date of technical bid opening. (or)

1.2.5 Valid Registration to any other body as specified by ministry of MSME, GOI

1.3 MODES OF DEPOSIT OF EMD AMOUNT:

The EMD may be accepted only in the following forms:

1.3.1 Electronic Fund Transfer credited in BHEL account (before tender opening) - Online Payment procedure for EMD and SD amount attached (Annexure – I) for vendors' reference.

1.3.2 Demand draft, in favour of BHEL, Trichy-14 payable at Trichy (along with offer).

1.3.3 Fixed Deposit Receipt (FDR) 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)

1.3.4 In addition to above, the EMD amount in excess of ₹2 lakhs (TWO LAKHS) will also be accepted in form of Bank Guarantee from scheduled bank, provided the Bank Guarantee is valid for at least six months from the due date of tender submission. For instance, if EMD amount is ₹2,50,000/-, BG can be submitted for ₹50,000/- and rest ₹2,00,000/- to be submitted through other modes mentioned above.

1.4 FORFEITURE OF EMD:

EMD by the tenderer will be forfeited along with applicable GST as per tender documents if:

1.4.1 After opening the tender and within the offer validity period, the tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.

1.4.2 The Contractor fails to deposit the required Security deposit or commence the work within 15 days of LOI/ WO/ Contract.

1.4.3 EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ contractors" and forfeited/ released based on the action as determined under these guidelines. Abridged version of the guideline is available in www.bhel.com.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

PART – I (B) TECHNO-COMMERCIAL BID

2 QUALIFYING CRITERIA FOR THE CONTRACT

S. No	CATEGORY	DETAILS
2.1	EARNEST MONEY DEPOSIT (EMD) EMD AMOUNT: <u>Refer page 1 of this tender document</u>	Refer Part-I (A)
2.2	<u>STATUS OF THE COMPANY</u> ○ Proprietorship: PAN card on owner name ○ For partnership firms: PAN card <u>and</u> PARTNERSHIP DEED ○ For others: PAN card in the name of company / firm / business <u>and</u> CERTIFICATE OF INCORPORATION / MOA <u>and</u> AOA.	copy to be uploaded in eprocurebhel.co.in portal
2.3	GST Registration certificate (If applicable)	copy to be uploaded in eprocurebhel.co.in portal
2.4	<u>PROOF OF EXPERIENCE:</u> Experience of execution of at least one contract as per scope of work or works of similar nature related to Pickling & Passivation of Components / consumables in any Central / State Govt. / PSU / Private company executed after 31st March, 2013. (Experience proof from BHEL shall contain work order copies and experience proof from other than BHEL shall contain work order / agreement copies along with Form 26AS / TDS certificate / bank statement for payment from the organisation for the work executed to be enclosed.)	Documentary evidence (WO /Agreement/ Completion certificate) copy to be uploaded in eprocurebhel.co.in portal)
2.5	No Deviation Declaration	To be agreed in eprocurebhel.co.in portal
2.6	Third party non-disclosure agreement	To be filled, stamped & signed and uploaded in e-procurebhel.co.in portal
2.7	Acceptance for Reverses Auction (RA)	To be agreed in eprocurebhel.co.in portal.

Note:

- At any stage, BHEL may ask for original documents and contractor has to submit the same.
- If at any stage, the document(s) submitted by contractor is/are found incorrect/ false/ manipulated, the necessary action will be taken by BHEL against contractor and business dealing with BHEL may be suspended.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

3 SCOPE OF WORK AND TECHNICAL TERMS & CONDITIONS

Bill of Quantity % allocation details

S.no	Description	Qty.	UOM	% allocation
1	Pickling of ti wire	700	Meter	5.76%
2	Degreasing of Ti components Sub assembly	120	Square meter	4.16%
3	Pickling and Passivation of SS component	30	Square meter	1.65%
4	ID /OD cleaning of SS tubes	1,500	Meter	12.84%
5	Degreasing and Pickling of Ti consumable	60	KG	1.08%
6	Pickling and passivation of SS component	100	Square meter	5.48%
7	Pickling of Titanium tubes	1,500	Number	12.84%
8	Pickling of Titanium plates/Sheets	120	Square meter	4.34%
9	Buffing and painting of housing Assy	60	Square meter	2.20%
10	Pickling of Ti Wire	1,200	Meter	9.87%
11	Degreasing of Ti components and sub assy	300	Square meter	8.27%
12	ID /OD cleaning of Titanium tubes	2,000	Number	23.12%
13	Pickling and Passivation of SS component	80	Square meter	4.39%
14	Pickling and Passivation of CopperGasket	3	Number	0.80%
15	Painting of CS body Assy	20	Square meter	1.07%
16	Painting of CS body Assy	40	Square meter	2.13%
Total %				100.00%

1.8.1 Illustration of rate allocation (sample only): Assume that there are two items in BOQ. The respective quantity and percentage allocation is specified as given below:

Item	Quantity	% Allocation
10	12,130	97.51 %
20	302	2.49 %

Suppose if the amount quoted by the bidder is ₹10,00,000 /- for the entire package for the quantity given in the above table, the amount allocated for item 10 would be 97.51 % x ₹10,00,000 = ₹9,75,100 /- and the rate for the item 10 would be ₹9,75,100 / 12,130 (Qty.) = ₹80.38 /- . Similarly, the rate for item 20 would be 2.49 % x ₹10,00,000 = ₹24,900/- and the rate for the item 20 would be ₹24,900 / 302 (Qty.) = ₹82.45 /- .

The rates will be rounded off to nearest two decimal places only so as to match the total amount or closest to the total amount, quoted by the bidder. **Rates so arrived by BHEL will be final and binding on the contractor.**

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

SCOPE OF WORK

1. All works are to be done at BHEL- ATP shops (159,158,119, 181 & 163). Collection of Ti/SS consumables/Plates/sheets /components from ATP Shop.
2. Cleaning/degreasing/pickling, Painting shall be done as per procedure enclosed as Annexure-V. (The vendor shall have to work in both morning and evening to cater Day and Night shift requirements.
3. The contractor has to arrange required quantity of chemicals/other items as per procedure enclosed as Annexure-V.
4. After cleaning/degreasing/pickling, surface check shall be successfully done and shown to C'Lab/BHEL & QS /BARC Inspection. If not satisfactory, again repeat to be done till it get accepted by the concerned agency. Work completion certificate approved by shop in-charge and lab shall be submitted to ATP/OP&C for final certification.
5. The contractor has to come to BHEL - ATP shops whenever called by shop on daily / alternate / weekly basis as per shop requirement. Movement of Tubes / consumables / components from shop to pickling/cleaning area and back to shop is in vendor scope. Sufficient manpower's shall be engaged on need basis depending on length / size / Qty. of job offered to the S/cr. While handling of tubes/consumables/components, scratches, dents and damages shall be avoided. S/cr has to match the BHEL Shift timings including late night.
6. SS tank, heating facility (Burner with producer gas), DM water, Acetone, Spirit, Nitrogen, Lint free cloth, polythene and emery sheet will be provided by ATP shop.
7. All safety items like shoes, rubber gloves, aprons, respirators, safety glasses shall be brought by sub-contractor.
8. Careful handling of components/sub assembly shall be done to avoid damages.
9. After degreasing/pickling contact with foreign material shall be avoided.
10. Degreasing/Pickling area shall be made clean after work and ensure proper disposal of used chemicals as per safety & EMS points as given below.
11. Drawing for the above items will not be given to S/Cr. However, S/Cr can contact OP&C to see the components /assembly physically before S/Cr submit offer.
12. All safety precautions shall be followed while doing the job in BHEL

Safety points: -

1. The contractor shall be familiar with the Acid's properties and processes.
2. To create awareness necessary training to be given on "Handling of Acids and Hazardous chemicals" to all working and supervising persons with Laboratory Faculties.
3. Emergency procedures (Do's & Don'ts) and material safety data sheet (MSDS) of acid being used are to be displayed legibly at work spot.
4. Along with safety Shoes and Helmets Suitable Acid proof PPEs like Apron, Goggles, Gloves and Light Fume Respirator are to be used by working and supervising persons.
5. All working persons must be made aware of acid properties and suitable training session shall be arranged with laboratory faculties.
6. The activity shall be done in the presence of both BHEL as well as contract supervision.
7. Any other safety measure as necessitated by the nature of work should be strictly followed.
8. These safety measures shall be deemed to form an integral part of the work order / agreement.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

EMS Points: -

1. Suitable mechanism to be provided to control the spillage of chemicals.
2. The Effluents generated to degreasing, pickling etc., are to be neutralized and disposed safely.

LIQUIDATED DAMAGES (LD)/PENALTY:

If the contractor fails to complete the service/work as per terms & conditions of the order within the delivery schedule, the following penalties/LD will be levied:

Penalty @ 0.5 % of order value per week of delay in execution of work as per delivery schedule of scope of work or part thereof subject to maximum of 10 % of total order value.

In case of any amendment / revision, Penalty shall be linked to the amended / revised PO value.

PAYMENT TERMS:

1. Payment will be made after completion of work on pro-rata basis based on actual Services provided as per BOQ after acceptance and certification of Area in charge (BHEL Executive) after 45 days.
2. Along with bills, Contractors has to furnish copy of the following documents for further processing of bills:
 - a. The Contractor shall submit the bill within a week after at the end of each month in triplicate copies detailing the various items of work done during the month supported by the requisitions issued from time to time
 - b. Any other relevant document which is required from time to time as per BHEL requirement.
3. The Contractor shall, once in every month, submit to the respective area **HOD** separately details of their claims for the work done by them up to and including the previous. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done up to and including the period under report. Payment will be at the sole discretion of BHEL.
4. The proof of execution of work should be submitted along with each bill (printed form with covering letter and proof for execution of work). Payment will be made after 45 days from the date of bills Submission.
5. If the Contractor is not registered for any statutory obligation and not liable thereto, then a declaration shall be submitted along with offer that they are within the threshold limit.
6. No advance may be paid for operational or any other expenses.
7. Goods and Services tax will be payable extra by BHEL at prevailing rates and corresponding TDS will be made as per Government norms.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

4 GENERAL TERMS & CONDITIONS OF THE CONTRACT

4.1 PROVISION FOR MICRO & SMALL ENTERPRISES (MSE) SUPPLIERS AND START-UPS

MSE suppliers can avail the intended benefits only if they submit as per EMD waiver documents mentioned in PRE-QUALIFICATION / EMD along with the offer.

4.1.1 Definitions of MSEs owned by Women is under:

- i. In case of proprietorship firm, proprietor must be woman.
- ii. In case of partnership firm, the women partners must be holding at least 51% shares in the unit.
- iii. In case of private limited companies, at least 51% share must be held by women promoters.

4.1.2 Definitions of MSEs owned by SC/ST is under:

- i. In case of proprietorship firm, proprietor must be SC/ST.
- ii. In case of partnership firm, the SC/ST partners must be holding at least 51% shares in the unit.
- iii. In case of private limited companies, at least 51% share must be held by SC/ST promoters.
- iv. Authorized Offices to Issue SC/ST certificate. The caste/Tribe/Community certificate issued by the following authorities in the prescribed form for SCs/STs can be considered.
- v. District Magistrate / Additional District Magistrate / Collector / Deputy commissioner / Additional Deputy commissioner / Deputy collector/ 1st class stipendiary magistrate/ Sub divisional Magistrate/ Taluka Magistrate/ Executive magistrate/ Extra Assistant commissioner.
- vi. Chief Presidency magistrate/ Additional chief presidency magistrate/ Presidency magistrate.
- vii. Revenue Officer not below the rank of tahsildar.
- viii. Sub-Divisional officer of the area where the individual and/ or his family normally resides.
- ix. To avail the benefits of MSE under SC/ST category, the related documents as stated above should be submitted along with tender documents.

4.1.3 If MSEs quoted price is within price band L-1 + 15%, when L1 is non- MSE, the MSEs will be allowed to supply at least 25% of tendered quantity at L-1 rate subject to acceptance by MSEs to L-1 rate. (Minimum of 3% reservation for women owned MSEs and 6.25% for MSEs owned by SC/ST within the above mentioned 25% reservation). In case the contract cannot be split, the full/ complete supply of total tendered value shall be awarded to MSE. The preference to the MSEs will be given in order of their ranking L1, L2, L3, etc.

4.1.4 Start-up companies will be provided benefits and relaxation as per the latest government norms. For availing start-up benefits, relevant certificates issued by Department of Industrial Policy and Promotion shall be submitted along with the tender.

4.2 REGISTRATION WITH STATUTORY BODIES

4.2.1 If Company/ Firm/ Agency/ Vendor is not registered with PF, ESI and Labour License (as applicable), they will have to comply with the statutory requirements within 30 days from award of contract, otherwise their bills will not be processed.

4.2.2 If Company / Firm is not having valid labour License, they have to get registered immediately after award of contract, in case they are engaging more than 20 workers, and submit the same within 30 days from award of work failing to do so contract will be cancelled and BHEL will entrust the work to any other contractor at the risk and cost of the contract, and the contractor shall be liable to pay the extra expenditure.

4.2.3 The contractor shall have separate PF and ESI code, BHEL will not allow the contractor to remit the PF and ESI of his employees through codes of others.

4.2.4 Apart from furnishing the above details, self-attested copies of relevant documents/ certificates must be enclosed with the Technical Bid. If at any stage, the document(s) submitted by Contractor is/are found incorrect/false, the necessary action will be taken by BHEL against contractor.

4.2.5 BHEL may reject the bid or in case the contract has been awarded, then terminate the contract apart from taking any other suitable action under the contract or applicable legal provisions or BHEL guidelines including Guidelines for suspension of Business Dealings, without any liability for any compensation to the bidder if, BHEL discovers at any time that any statement made by the bidder in the affidavit cum undertaking is false, fraudulent (or) Any document submitted by the bidder was fake and forged (or) If

Authorized Signature and seal



Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

BHEL determines in the sole discretion that any statement was aimed at deliberately misleading BHEL with a view to ensure award of the subject contract to the bidder.

4.3 GOODS AND SERVICES TAX (GST)

- 4.3.1 **GST will be charged on the EMD / SD amount forfeited from the bidder at the applicable rates. GST tax Invoice will be issued to the vendor on receipt/recovery of GST amount from the vendor.**
- 4.3.2 At the time of bill passing, the contractor shall submit the copy of the remitted GST challan of previous month / Quarter as proof of GST remitted to tax authorities and also a Certificate Stating that "GST Collected from BHEL has been remitted to tax authorities".
- 4.3.3 For services / supplies after implementation of New GST Return System i.e. from 01/10/2019, the following conditions will apply and contractor shall fully comply to the below points.
- 4.3.4 Response to Tenders for Indigenous contractor will be entertained only if the vendor has a valid GST registration No (GSTIN) which should be clearly mentioned in the offer. If the dealer is exempted from GST registration, a declaration with due supporting documents need to be furnished for considering the offer. Dealers under composition scheme should declare that he is a composition dealer supported by the screen shot taken from GST portal. The dealer has to submit necessary documents if there is any change in status under GST.
- 4.3.5 Contractor shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes) and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like ERP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, Place of Supply etc.
- 4.3.6 All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).
- 4.3.7 Invoices will be processed only upon completion of statutory requirement and further subject to following:
- a. Vendor declaring such invoice in Form GST ANX-1
 - b. Receipt of Goods or Services and Tax invoice by BHEL
- 4.3.8 As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on despatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).
- 4.3.9 In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Contractor has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.
- 4.3.10 In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor
- 4.3.11 In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.
- 4.3.12 Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- 4.3.13 Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contractors. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.
- 4.3.14 GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.
- 4.3.15 In case any changes in taxes and duties as per Gov. Notification (including GST), the same shall be applicable from time to time.

4.4 TERMS FOR PRICE BID & RATE BASIS

- 4.4.1 Price bid is to be submitted in a separate price bid form provided in the portal.
- 4.4.2 The period of the contract can be extended if required by BHEL and agreed by contractor.
- 4.4.3 Quotation should be valid for a period of 120 days from the date of tender opening.
- 4.4.4 The quoted rate should be excluding GST and inclusive of any taxes and duties levied or to be levied both by Central and State Government authorities from time to time. Such levies should be borne by the Contractor. GST will be paid extra only on submission of documentary evidence.
- 4.4.5 The quoted rate will be inclusive of supply of all items as per the scope of work. Any miscellaneous materials that have not been mentioned specifically in the specification/tender which are required for work, shall be deemed to be included in the specification and shall be supplied by the bidder without any extra charges. Any scope of activities which are not specifically mentioned in this specification but required for the completion of the work for safe, trouble free, normal operation shall be provided at no extra cost by the bidder, unless explicitly excluded in the specification. Any charges for the civil works/ construction materials used for the work will be in the scope of bidder.
- 4.4.6 The Contractor will have to cover their workmen under PF, ESI, Bonus Act etc. based on the above payment rate (Minimum Wage + Additional Wage).
- 4.4.7 Except applicable statutory deductions towards EPF, ESI, etc., the above stipulated wages shall be paid by the Contractor without any deductions like advance, training cost, accommodation cost, loan, etc.
- 4.4.8 The contractor should follow and comply with Minimum Wages, ESI, PF, Bonus, Group Insurance and other statutory regulations as stipulated in Factories Act and other applicable State/Central Government rules & regulations.
- 4.4.9 New vendors responding against BHEL website/ NIC/ CPPP, may visit the area of work, if they want to know the scope/ work details, and also area of work, prior to quoting.
- 4.4.10 Evaluation of the offer shall be done on the basis of delivered cost (i.e. "Total Cost to BHEL").
- 4.4.11 The vendor will be permitted to work round the clock to complete the work.

4.5 RATE FINALIZATION

- 4.5.1 Lowest prices received against BHEL Tenders need not be the acceptable to BHEL and in that case BHEL would not consider the same for award of Contract. BHEL would negotiate or re-float the Tender opened if L1 price is not the lowest acceptable price to them inter-alia other reasons.
- 4.5.2 BHEL will finalize the rates through price bid opening. Hence, Tenderers are requested to give their best prices at the first instant itself.
- 4.5.3 In the event of the final L1 prices are not reasonable/ acceptable to BHEL, BHEL also may resort to short closure of this Tender.

4.6 FINALIZATION OF CONTRACT BY ADOPTING "REVERSE AUCTION":

BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among the techno- commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.

4.7 CRITERIA FOR AWARD OF WORK

- 4.7.1 The evaluation of offer for award of work shall be on the basis of "Total Cost to BHEL" for [Package-wise L1 \(lowest bidder\)](#) on basis on "Net Cash outflow to BHEL after taking into account applicable Taxes and Duties.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

4.7.2 In case of more than one L1 bidders, BHEL will get fresh revised reduced price bids from all such L1 bidders & ranking will be decided based on these revised bids. The new rates quoted should be lower than their previous L1 rates. If L1 could not be decided by this process, ranking will be decided by draw of lots in the presence of all such L1 bidders. In case of draw of lots, if MSE(s) are part of the bidders included in draw, non-MSE bidders will be excluded from the draw

4.6.2 The quantity mentioned in BOQ / Price bid is tentative. BHEL reserves the right to increase or decrease the quantity during award of work or issue work order in phase manner as per requirement of BHEL.

4.7 TERMS & CONDITIONS FOR THE CONTRACTS

4.7.1 DEFINITION: In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them, except where the context otherwise requires:

- i. The "Contract" means, the documents forming the Tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to contract. All these documents as applicable taken together shall be deemed to form one contract and shall be complementary to one another.
- ii. The "work" means, the work described in the Tender documents in individual work-orders as may be issued from time to time to the contractor by the Officer-In charge within the power conferred upon him including all notified or additional items of works and obligations to be carried out as required for the performance of contract.
- iii. The "contractor" means, the individual Firm or Company whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company or the successors of the firm or company and the permitted assigns of such individual or firm or Company.
- iv. "The Officer-In charge" means, the Officer deputed by the Head of Indenting department (User), to supervise the work or part of the work.
- v. "Approved" and "Directed" means, the approval or direction of Head of Indenting department (User), or person deputed by him for the particular purposes.
- vi. BHARAT HEAVY ELECTRICALS LIMITED" (herein after referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or other Administrative Officer of the said Company including AGM / WCM authorised to invite tenders and enter into contract for works on behalf of the Company.
- vii. The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in Tender and / or the contract rates as payable to the contractor for the execution of the work during the currency of the contract.
- viii. A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.
- ix. A "day" means, the day of 24 hours (TWENTY-FOUR) irrespective of the number of hours worked or not worked in that day.
- x. A "working day" means, any day other than that prescribed by the NEGOTIABLE INSTRUMENTS ACT as being a Holiday, and consists of the number of hours of labour as commonly recognised by good employers in the trade in the district where the work is carried out or as laid down in the BHEL regulations.

4.7.2 **HEADING TO THE CONTRACT CONDITIONS:** The heading to these conditions shall not affect the interpretations thereof.

4.7.3 **WORK TO BE CARRIED OUT:** The Contract shall, include all labour, materials, tools, plant, equipment and transport which may be required for the execution of the work. The Contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution of the work. No extra charges consequent on any misunderstanding in these respects or otherwise will be allowed.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- 4.7.4 **DEVIATIONS:** The contractor shall not carry out any work not covered by schedule except in pursuance of the written instructions of the respective area HOD/WCM. No such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.
- 4.7.5 **ASSIGNMENT OF TRANSFER OF CONTRACT:** The Contractor shall not without the prior written approval of the BHEL, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons. No sum of money which may become payable under the contract shall be payable to any person, other than the contractor unless the prior written approval of the BHEL to the assignment or transfer of such money is given.
- 4.7.6 **SUB-CONTRACT:** The Contractor shall not sub-let any portion of the contract without the prior written approval of the BHEL.
- 4.7.7 **COMPLIANCE TO REGULATIONS AND BY-LAWS:** The Contractor shall confirm to the provisions of any statute relating to the work and regulations and Bye-Laws of any local authority. The Contractor shall be bound to give all notices required by statute regulations or By-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.
- 4.7.8 **SECURITY DEPOSIT (SD):** Security Deposit means the security provided by the Contractor towards fulfilment of any obligations in terms of the provisions of the contract. The total amount of Security Deposit will be 5% of the contract value. EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit. Security Deposit has to be deposited within 15 days of LOI. Else EMD will be forfeited and may also attract the provision of "Suspension of Business dealings with Suppliers/Contractors".
- 4.7.8.1 **MODES OF DEPOSIT OF SD:** The balance amount to make up the required Security Deposit of 5% of the contract value may be accepted in the following forms:
- Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL (Online Payment procedure for EMD and SD amount attached (Annexure – I) for vendor's reference)
 - Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL
 - 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)
 - 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)
- 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.
- 4.7.8.2 **COLLECTION OF SECURITY DEPOSIT**
- The Security Deposit must be deposited before the start of Work.
 - At least 50% of the required Security Deposit, including the EMD, is to be submitted before start of the work. Balance of the Security Deposit can be collected by deducting 10% of the gross amount progressively from each of the running bills of the Contractor till the total amount of the required Security Deposit is collected.
 - If the value of work done at any time exceeds the contract value, the amount of Security Deposit shall be correspondingly enhanced and the additional Security Deposit shall be immediately deposited by the Contractor or recovered from payment/s due to the Contractor.
 - The Security Deposit shall not carry any interest.
 - Timely Submission of SD:** Bidder agrees to submit performance security required for execution of the contract within the time period mentioned. In case of delay in submission of performance security, enhanced performance security which would include interest (SBI rate + 6%) for the delayed period, shall be submitted by the bidder. Further, if performance security is not submitted till such time the

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

first bill becomes due, the amount of performance security due shall be recovered as per terms defined in NIT / contract, from the bills along with due interest

NOTE: After issue of LOI / Work Order, if the Contractor fails to commence the work within 15 Days or as indicated in LOI / Work Order, and do not complete the work in total as per the terms & conditions of tender, EMD / SD deposited by the Contractor will be forfeited and suitable action as per suspension of business dealing guidelines of BHEL will be taken.

4.7.9 SUBMISSION OF BILLS BY CONTRACTOR: Bills should be submitted within a week after execution of work during the calendar month. The Contractor shall submit a bill in triplicate detailing the various items of work done during the month supported by the requisitions issued from time to time. The Contractor shall, once in every month, submit to the end user / executing agency, separately details of his claims for the work done by him up to and including the previous month which are not covered by his contract agreement in any of the following respects:

- i. Deviation from the items provided in the contract documents.
- ii. Extra items / new items of work.
- iii. Items in-respect of which rates have not been settled. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done up to and including the period under report.
- iv. Tenderer has to quote rates both in figures and in words for all the items given in the Bill of Quantities provided.

Along with bills, Contractors has to furnish self-attested copy of the following documents for further processing of bills:

- v. Copy of PAN card.
- vi. Documentary proof for payment of PF/ESI (for the last month) with respect to the employees engaged by the contractor with payment details relating to individual names to be submitted.
- vii. Copy of payment challan of previous Month / Quarter as proof of deposit of GST along with a certificate from the Contractor that tax collected from BHEL has been remitted to tax authorities.
- viii. If the Contractor is not registered for any statutory obligation and not liable there to, then a declaration shall be submitted along with offer that they are within the threshold limit.
- ix. Any other relevant document which is required from time to time as per BHEL requirement.

4.7.10 PAYMENT OF BILLS: All payments to be made to the contractor, under this contract shall be through Electronic Fund Transfer (EFT) after the certification of bills by the end user / executing agency.

- i. Payment will be made after completion of work as per tender conditions on acceptance and certification of bills by respective area Executive in charge.
- ii. Payment shall be made against Certification by respective area Executive in charge.
- iii. Statutory deduction like IT etc. will be deducted from contractor payment as required by Law.

4.7.11 REFUND OF SECURITY DEPOSIT: Security Deposit will be refunded on completion of the work and after the expiry of the maintenance period, if any, provided always that the Contractor shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE". In case no maintenance period is applicable, then 100% of security Deposit will be refunded after providing "NO DEMAND CERTIFICATE" by the contractor as per format provide by BHEL.

4.7.12 EXTENTION OF CONTRACT: One or more extensions of the Contract may be done with mutual agreement between BHEL, Trichy and the approved Contractor. Such agreements shall be based on acceptance of the lowest rates and terms & conditions of the corresponding contract.

4.7.13 RECOVERY FROM CONTRACTOR: Whenever under the contract, any sum of money, shall be recoverable from or payable by the Contractors, the same may be deducted from or any sum then due or which at any time thereafter may become due to Contractor under the contract or under any other contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

4.7.14 POST TECHNICAL AUDIT OF WORK AND BILLS: BHEL reserves the right to carry out the post-payment Audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof in the manner provided in the presiding sub-paragraphs. However, no such recovery shall be enforced after three years of passing the final bill.

4.7.15 PREFERENCE TO MAKE IN INDIA: For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/ Non Local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

4.7.16 INCOME TAX:

- i. Income Shall be deducted at the applicable rate in respect of the service contract including supply of labour for any work as follows:
- ii. Self-attested copy of PAN card shall be submitted to Account Dept. along with original for verification.
- iii. TDS Certificate will be issued to vendors for each quarter ending as on 30th June, 30th Sept, 31st Dec and 31st Mar during the following quarter.

4.7.17 GST:

- i. Wherever GST is liable to be paid by the contractor, the contractor shall register himself under the GST Rules and a Self-attested copy of Certificate of Registration shall be furnished to Account Dept.
- ii. After registration, the payment of GST shall be effected by the contractor to the Central Government monthly/quarterly based on the invoices raised before the due date of payment. The GST Return also shall be submitted to the Government before the due date.
- iii. The invoice/bill in original duly signed by the contractor claiming the payment for GST shall clearly indicate the following:
 - Continuous Serial no. & date of the bill
 - Cost of the service
 - Separately showing the GST amount calculated at the applicable rate
 - PAN based GST Registration No.
- iv. The GST claimed in the bill will be paid to the contractor based on the proof of payment of GST to the Government for the previous month/quarter as the case may be.

4.7.18 AVAILING INPUT TAX CREDIT (ITC): As per GST in line with new GST Return System from 1st Oct 2019.

4.7.19 ORDERS UNDER THE CONTRACT: All orders, notices etc. to be given under the contract shall be in writing, type-script or printed and if sent by registered post to the address given in the Tender of the Contract, shall be deemed to have been served on the date, when in the ordinary course they would have been delivered to him. The Contractor shall carry out without delay all orders given to him. Contractor shall be deemed to have included in his tender price of all the plant, machinery and appliances required for the purpose of all operations connected with the work embraced under the contract to secure a satisfactory quality of work and rate of progress which in the opinion of the "Contract Signing Officer" will ensure the completion of the work within the time specified. BHEL is having every right to split the schedule and to award the work to single or many parties on the lowest offered rates basis. This is a time bound contract for period mentioned, and does not envisage any extension of time / period.

4.7.20 CONTRACTOR'S SUPERVISION:

- i. The contractor shall either himself supervise the execution of the contract or shall appoint a competent agent acceptable to BHEL Officials.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- ii. Orders given to the contractor's agent shall be considered to have the same force as if they have been given to the contractor himself.
- iii. The contractor or his accredited agent shall attend when required without making any claim for doing so to the Executive/WCM or OFFICER-INCHARGE, to receive instructions.
- iv. The respective area HOD have full powers and without assigning any reason, require the contractor to immediately cease to employ in connection with this contract, any agent, servant or employee where continued employment is, in his opinion undesirable. The contractor shall not be allowed any compensation on this account.

4.7.21 LABOUR:

- i. The Contractor shall remain liable for the payment of all wages and other payments in connection with the employees engaged by him and with regard to the work.
- ii. The Contractor shall comply with the applicable provisions of Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act. 1938, Employees Compensation Act 1923, Payment of Bonus Act, EPF and Miscellaneous Provisions Act, 1952, Employees State Insurance Act, 1948 and other relevant Acts and rules framed, there under from time to time.
- iii. Contractor shall be responsible for making payment of wages and shall ensure disbursement of wages in the presence of the authority's representative of contract operating division who shall record under his signature at the end of entries in the Register of wages.
- iv. Contractor shall have/ obtain license under CL(R&A) Act, 1970.
- v. As per BHEL circular Contractor will have to make an additional wage per month has to be paid by the Contractor over and above minimum wages declared by Tamil Nadu Government to labours as:

Unskilled : ₹ 3200/-	Semi-skilled : ₹ 3700/-
Skilled : ₹ 4100/-	Highly Skilled : ₹ 4,300/-
- vi. The contractor has to disburse the salary/wages for their workmen only through Bank (RTGS). The relevant Bank statement/proof for Bank payment should be produced along with PF and ESI and challans to Welfare Section every month.

4.7.22 COMPENSATION TO WORKMEN: BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below.

- a) Victim: Any person who suffers permanent disablement or dies in an accident as defined below
- b) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing / operation and works incidental thereto at BHEL factories/ offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, sewing, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works / during working at BHEL Units/ Offices/ townships and premises/ Project Sites.
- c) Compensation in respect of each of the victims:
 - (i) In the event of death or permanent disability resulting from Loss of both limbs: ₹ 10,00,000/- (Rupees Ten Lakh)
 - ii) In the event of other permanent disability: ₹ 7,00,000/- (Rupees Seven Lakh)
- d) Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to Section 2 (I) of the Employee's Compensation Act, 1923

4.7.23 PRECAUTIONS AGAINST RISK: The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

4.7.24 DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO WORKMEN: The Contractor shall at his own expense reinstate and make good to the satisfaction of the respective area HOD and pay

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify, the BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL where BHEL is a private person, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise.

4.7.25 LAWS GOVERNING THE CONTRACT:

The contract shall be governed by the Indian Laws for time being in force.

- i. Should a tenderer or a contractor has a dependent/relative or in the case of a partnership firm, any of its partners or dependents of partners employed in BHEL, the authority inviting tenders should be informed of this fact at the time of submission of the Tender failing which Tender may be disqualified or if such fact subsequently come to light, the contract may be cancelled.
- ii. No BHEL employee and their dependents are eligible to submit their offer against this tender.

4.7.26 CANCELLATION OF CONTRACT FOR CORRUPT ACTS: BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued shall accrue thereafter to BHEL cancel the contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extend as provided in the case of cancellation for default. If the Contractor shall:

Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,

OR

Enter in to a contract with BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL.

OR

To obtain a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

4.7.27 CANCELLATION OF CONTRACT FOR INSOLVENCY ASSIGNMENT OF TRANSFER OR SUB-LETTING OF CONTRACT: BHEL, without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL shall cancel the contract in any of the following cases:

If the Contractor,

- i. being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any: Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors.

OR

Being a Company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or Manager on-behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager,

OR

Assigns, Transfers, Sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the BHEL.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- ii. Whenever BHEL exercise the authority to cancel the contract under this conditions, BHEL may have the work done by any means at the contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by the respective area HOD) being less than the contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by the respective area HOD or the same shall be recovered from the Contractor by other means.
- iii. In case the BHEL carries-out the work under the provisions of this condition the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and/or labour provided by the BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the respective area HOD whose decision shall be final and conclusive.
- iv. Labour engaged by the contractor should be disciplined & exhibit good behaviour in dealing with employees of BHEL. Any misbehaviour or undesirable conduct of any person engaged by the contractor is reported, contractor shall change that person immediately or else it may even lead to termination of the contract & in such case security deposit will be forfeited as penalty.

4.7.28 CANCELLATION OF CONTRACT IN PART OF FULL FOR CONTRACTOR'S DEFAULT:

If the Contractor:

- i. makes default in carrying out the work as directed and continues in that state after a reasonable notice from Head of WCM., or his authorised representative;
- ii. fails to comply with any of the Terms and Conditions of the contract or after reasonable notice in writing with orders properly issued thereunder:

BHEL, may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercise the authority to cancel the contract as whole or part under this condition BHEL may complete the work at the contractor's risk and cost (as certified by Head of WCM., which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL. If the cost exceeds the moneys due to the contractor under this contract the contractor shall either pay the excess amount ordered by Executive/WCM or the same shall be recovered from the contractor by other means. In case the BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by the BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the Head of WCM., whose decision shall be final and conclusive.

- 4.7.29 **TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR:** Without prejudice to any of the rights or remedies under this contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated BHEL shall have the option of terminating the contract without compensation to the Contractor.

- 4.7.30 **SPECIAL POWER TO TERMINATION:** If at any time after the award of contract, BHEL shall for any reason whatsoever does not require whole or any part of the work to be carried out, then Head of WCM shall give notice in writing of the fact to the Contractor and terminate the contract. The contractor shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

- 4.7.31 **FORCE MAJEURE CLAUSE:** If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods,

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence therefor neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the Manager/WCM subject to prompt notification by the contractor.

4.7.32 **JURISDICTION:** In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the aforesaid arbitration clause.

4.7.33 **SIGNING OF CONTRACT:** Each contract document shall be signed by the Contractor with his usual signature. Contract by partnership of Hindu Joint Family firm, may be signed in the FIRM'S name by one of the Partners or the Karta or Manager as the case may be or by any other duly authorised representative followed by the name and designation of the persons so signing. Contracts by a Company shall be signed with the name of the Company by a person authorised in this behalf and a power of attorney or other satisfactory proof showing that the persons signing the Contract documents on behalf of the Company is duly authorised to do so, shall accompany the contract.

4.7.34 **FRAUD PREVENTION POLICY:** The Bidder along with its associate/ collaborators/ sub – vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about fraud or suspected fraud as soon as it comes to their notice. Fraud Prevention policy and List of Nodal Officers shall be hosted on BHEL website, vendor portals of Units / Regions intranet.

4.7.35 **SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS / CONTRACTORS:** Penal action can be initiated on the suppliers / Contractors in line with extant 'Guidelines for Suspension of Business Dealings with Suppliers/ Contractors'. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has been uploaded on <http://www.bhel.com> on "supplier registration page".

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.

1.0 Integrity commitment, performance of the contract and punitive action thereof:

1.1. Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

1.2. Commitment by Bidder/ Supplier/ Contractor:

1.2.1. The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.

1.2.2. The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

1.2.3. The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on [www. bhel.com](http://www.bhel.com) and/or under applicable legal provisions.

- 4.7.36 **SECURITY OF CONFIDENTIAL INFORMATION:** The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract.

All the input details: transmittals and sample drawings supplied for preparation of drawings are confidential information of BHEL for specific purpose only. The contractor shall never pass on / part with the information to anybody and shall maintain the secrecy of the information. As soon as the bills are certified by BHEL, all the relevant drawing files shall be erased from PCs and shall not be made use under any circumstances.

BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorised activity.

4.7.37 STATUTORY REQUIREMENTS:

- i. All statutory requirements under Minimum Wages Act, 1948, Factories Act 1948, Workmen Compensation Act 1923, Employees Provident Fund and Miscellaneous Provisions Act, 1952, Payment of Gratuity Act 1972, Employee State Insurance Act 1948, Contract Labour (R&A) Act 1970, Payment of Bonus Act 1965, Income Tax Act, GST Act and all other applicable Acts shall be complied with by the Contractor.
- ii. Contractor shall comply with all statutory requirements, rules, regulations, notifications in relation to employment of his employees issued from time to time by the concerned authorities.
- iii. Contractor shall indemnify BHEL against all claims and losses under various Labour Laws, statutes or any civil or criminal law in connection with employees deployed by him.
- iv. Contractor wherever applicable shall maintain proper records prescribed by the concerned statutory authorities and provide a copy of the same to BHEL.
- v. Contractor shall furnish proper returns to the concerned statutory authorities and provide a copy of the same to BHEL.

- 4.7.38 **MOTOR VEHICLE ACT:** The contractor should comply the relevant Motor Vehicle Act and other statutory requirement.

- 4.7.39 **REMOTE TRANSACTIONS:** The contractor shall agree to and comply with all such terms and conditions as BHEL may prescribe from time to time and shall confirm that all transactions effected by or through facilities for conducting remote transactions including the Internet, World Wide Web, electronic data interchange, call centres, teleservice operations (whether voice, video, data or combination thereof) or

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

by means of electronic, computer, automated machines network or through other means of telecommunication established by BHEL shall constitute legally binding and valid transactions when done.

4.7.40 CHANGE IN CONSTITUTION OF FIRM: Changes in constitution of firm whenever it is made after submission of application or during currency of the contract, the existing firm has to duly inform the proposed changes to contracting department of BHEL at the appropriate time before the changes in the constitution are made. In case the absence of any such information BHEL is not responsible for the consequences arising out of the absence or suppression of information and the issue / dispute arising out of these changes and the firm is responsible for settling the issue or dispute among themselves (Partners etc.) or with the bankers or with any third party. Under the above circumstances when dispute arises and the firm does not inform the change in the constitution of the firm BHEL has the right for suspending or terminating the contract.

4.7.41 LIEN OF CONSIGNMENTS: The Contractor shall have no 'lien' of any kind over the consignments entrusted for transportation. Any dispute with the Contractor and the consignees shall be settled on negotiations but under no circumstances, delivery of the materials shall be withheld by the Contractor.

4.7.42 SAFEGUARD OF EMPLOYER'S INTERESTS: Contractor shall watch and safeguard Employer's interests during the performance of the work. The contractor shall carefully check each and every consignment/item/commodity with the relevant forms/documents.

4.7.43 RIGHTS:

- i. BHEL may enter into parallel Contract simultaneously with any number of Contractor as may be deemed fit at any time during the period of Contract in the Interest of the work for any or all the stations and for any or all the schedules.
- ii. In case of breach of any of the terms and conditions of the Contract, BHEL will entrust the work to any other Contractor at the risk and cost of the Contract and the Contractor shall be liable to pay the extra expenditure, damages, loss suffered on account of the cancellation of the Contract
- iii. All amounts including the losses / damages / penalties / compensations etc., resulting from non-compliance with the terms of Contract, payable by the Contractor to BHEL under the Terms of the Contract will be recovered from the outstanding payments to Contractor either under this Contract or any other Contracts or from Security Deposit or from both. In case this amount is insufficient for such recoveries, the Contractor shall make good the balance amount by actual payment. In addition, BHEL, Trichy will recover the said amounts through its sister concerns, from the payments due to the Contractor in any of the units of BHEL located in any part of India.
- iv. The Contractor is not allowed to pass the responsibilities connected with the Contract to other agencies / Contractors, the Contractors shall not sublet or transfer the Contract or any part thereof, which tantamount to termination of the Contract and thereby attracting the penalty or forfeiture of security deposit.
- v. The Contractor shall have no right to demand at any time during the currency of this Contract any minimum quantity of Work for this Contract.
- vi. BHEL may verify / audit check by surprise visits at various locations of Works at their discretion and see whether the above requirements are complied with by the Contractor. In case the above requirements are not complied with, severe actions may be taken by BHEL on such Contractors, as deemed fit.

4.7.44 RISK PURCHASE: In case of abnormal delays (beyond the maximum late delivery period as per LD clause) or non-fulfilment of any other terms and conditions given in work order, BHEL may cancel the work order in full or part thereof, and may also make a contract of such work/service from elsewhere / alternative source at the risk and cost of the original contractor. BHEL will take all reasonable steps to complete the contract obligations from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right

of BHEL under the contract. Risk & cost clause, in line with conditions of contract may be invoked in any of the following cases:

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

Risk and Cost amount against balance work will be calculated as follows:

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

Where,

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

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

H = Overhead Factor to be taken as 5

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

*(Balance scope of work/ supply)

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

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

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

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

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

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

4.8 COMPLIANCE WITH VARIOUS LABOUR LAWS BY THE CONTRACTS:

The contractor shall not engage in connection with the work any person who has not completed 18 years of age.

The contractor shall in respect of labour employed by him, comply with following statutory provisions and rules and in regard to all matters provided therein.

- a) The contract Labour (Regulation & Abolition) Act 1970 and the related Rules.
- b) The minimum wages Act 1948 and the related rules
- c) The payment of wages Act 1936 and the related rules.
- d) The Factories Act 1948 and related Tamil Nadu Rules.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- e) The Employees' Provident Fund & Miscellaneous provisions Act 1952.
 - f) The Employees State Insurance Act 1948.
 - g) Workmen Compensation Act 1923
 - h) Payment of Bonus Act 1965
 - i) Maternity Benefit Act, 1961
 - j) Payment of Gratuity Act, 1972
 - k) Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979
 - l) Equal Remuneration Act, 1976
 - m) Industrial Employment (Standing Order) Act, 1960 (In case of engaging 100 or more workmen)
 - n) The Industrial Disputes Act 1947
- and any other law, or modifications to the above or to the rules made there under from time to time.

4.8.2 REGISTRATIONS AND LICENCING:

Every contractor shall register his name with the Personnel & Administration Department of BHEL Trichy-14 before taking up the work awarded to him by giving the following information and getting a code Number.

- a) Name of the Contractor
- b) Nature of Work
- c) Period of Work
- d) Number of maximum labour employed by him on anyone day.
- e) License No. & Date (Applicable in case of contractors employing 20 or more workers)
- f) The labourer should be enrolled with PF, ESI and enrolment No should be furnished on finalization of contract.

The contractor employing 20 or more workmen shall obtain a license from the authorities (The Deputy Chief Inspector of Factories / Assistant Commissioner of Labour as the case may be). This license shall be amended and / or renewed wherever there is an increase in the workmen employed by him or in the event of contract being extended or renewed. The contractor shall inform the license number to the BHEL Management before taking up the work.

The contractor (licensed or unlicensed) shall promptly furnish every information and document required by BHEL Authorities.

WAGES: The contractor has to disburse the salary/wages for their workmen only through Bank. The relevant Bank statement/proof for Bank payment should be produced along with PF and ESI challans to Welfare Section every month. The contractor shall have separate PF and ESI code, BHEL will not allow the contractor to remit the PF and ESI of his employees through codes of others. The contractor shall pay wages to the workmen employed by him at the rate, which shall not be less than the minimum wages declared by Tamil Nadu Government from time to time plus additional wages prescribed by BHEL. A certificate of payment shall be furnished in duplicate by the contractor to the Engineer In-charge for each month. The contractor shall inform the BHEL Management every month the details of contract labour engaged for each contract in the following forms:

- a) Serial Number
- b) Location
- c) Period of Work
- d) No. of Contract labour engaged during the month
- e) No. of days worked
- f) No. of Man – days worked
- g) Wages paid to his workers.

The above statement shall be furnished to BHEL Management at the end of every month.

- 4.8.3 REGISTERS AND RECORDS:** The contractor shall maintain necessary documents/ Formats and Registers and submit returns as required under the Contract Labour (Regulation and Abolition) Act 1970 periodically to BHEL Management and to the Licensing Authority. All registers and records shall be preserved in original for a period of three years. All the registers, records and notice maintained under the Act and rules shall be produced on demand by inspector or any authority under The Act.

4.8.4 WORKING CONDITIONS:

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- a) The contractor shall provide all safety devices and personal protective equipment to his workmen at his own cost and shall ensure that his workmen wear / use such device or equipment provided to them while doing the work and there should not be any relaxation on this.
 - b) The contractor shall ensure that his workmen vacate the premises after shift is over.
 - c) The Contractor should bring contract labour to BHEL premises at his/her own cost, risk and execute the work allotted to him in BHEL premises. All safety equipment's to the workmen, safety rules & regulations are to be followed as per BHEL's Safety Rules & Regulations.
 - d) BHEL will no way be responsible for any loss of life or any injury caused to any of the contractors or their crew while executing the above work at BHEL premises.
- 4.8.5 NOTICES OF ACCIDENTS:** In the event of an accident the contractor shall be required to fill injury report and submit to the Engineer In-charge immediately and ensure compliance of ESI / Workmen's Compensation of accident as per the Act. The contractor shall get the contract labour engaged by him insured under workmen's compensation policy from General Insurance Corporation of India before actually starting the work of contract. The Insurance Coverage should be for the entire period of contract. The contractor shall comply with the provisions of the Workmen's Compensation Act 1923. (This should be read in connection with the provisions of ESI Act.)
- 4.8.6 COVERAGE UNDER THE ESI / PF ACT MISCELLANEOUS PROVISIONS ACT:**
- a) The contractor shall ensure that all his workmen are covered under the Employee's Sate Insurance Act and produce to BHEL such Registration number/ Enrolment Number before executing the contract work.
 - b) The contractor shall regularly pay the amount by contribution i.e., employers contribution as well as employee's contribution in pursuance of the above scheme as fixed from time to time.
 - c) The contractor shall ensure that his workmen are covered the PF & miscellaneous provisions Act 1952 and accordingly produce to the BHEL Management the Registration / Enrolment number before awarding of contract work.
 - d) The Contractor shall within seven days of the close of every month submit to BHEL a statement showing the amount of contribution payable / paid for employees engaged by him or through him and shall also furnish to BHEL such information, as Principal Employer is required to furnish under the provisions of the ESI Act PF as well as the schemes made there under to the authorities concerned.
 - e) Whenever any sum of money is found to be recoverable from or payable by the contractor, the same shall be deducted from any sum that may be due or which at any time thereafter may become due to the contractor under this contract or under any other contract or from his security deposit. In case the recoveries are not sufficient to satisfy the claims, the contractor shall pay the balance thereof on demand. In case any recoveries are made under this clause from the security deposit, the contractor shall immediately thereafter pay such further sum as may be required to replenish the shortage caused by such recoveries in the amount of security deposit.
 - f) In case of non-compliance of the provisions of the Acts and in case BHEL having complied with the same BHEL will be entitled to recover the same from the contractor / sub-contractor.
 - g) The contractor shall abide by all the labour and other laws applicable to contract labour / worker under this contract and shall at all-time keep BHEL Indemnified against all losses, claims, prosecutions under any law.
 - h) Non exercise of any of the powers or rights available under any law, shall not in any way operate as waiver thereof.
- 4.8.7 BIOMETRIC ENTRY/EXIT SYSTEM FOR CONTRACT WORKMEN:**
- a) The Entry/Exit of the contract workmen is to be regulated only through Biometric system.
 - b) The Contractor initially will be issued with a temporary gang pass for his/her contract workmen for period of ten days.
 - c) The contractor should arrange photo coverage for all his/her workmen within the above stipulated time.
 - d) The Contractor has to submit Form I for all his/her contract workmen. All the particulars required in Form I are to be provided by the contractor without fail.
 - e) The contractor should educate the contract workmen in registering the attendance through the system.
 - f) Whenever a contract workman migrates or leaves service, the contractor has to surrender the biometric card of the particular contract workman to Contract Cell with immediate effect.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- g) If a contract workman having biometric card joins another contractor, the contractor who engages them, has to intimate contract cell along with the biometric card for switching over the contract workmen from the earlier contractor to the present contractor.
- h) On completion of the work, the contractor has to surrender all the biometric cards immediately to the contract cell. Otherwise, an amount of Rs.100/- per card will be deducted from the final bill/security deposit of the contractor.
- i) If any contract workmen lose his/her card, the contractor shall arrange a duplicate for the workmen by paying an amount of Rs.100/-.
- j) The Contractor is totally responsible for the biometric cards issued to his/her contract workmen.
- k) The Contractor has to indemnify BHEL for all the damages and losses caused by his/her workmen.

4.8.8 SAFETY CONDITIONS: Tamil Nadu Factories Rules, 1950:

- a) Rule 61F: Methods of Work: No process or work shall be carried on in any factory in such a manner as to cause risk of bodily injury.
- b) Rule 61G: Stacking and storing of materials etc.: No materials or Equipment shall be stacked or stored in such a manner as to cause risk of bodily injury.
- c) Rule 61-N and Rule 61- O: Workers to be provided with Personal Protective equipment suitable for the hazards and should be of good quality / have certification by Indian Standard Institute.
- d) Rule 96: Notification of Accidents: Shall be complied with as required in the Factories Act (Section 88 and Section 88A) and Tamil Nadu Factories Rules.

4.8.9 COMMON TERMS AND CONDITIONS FOR WORKS CONTRACT RELEVANT TO SAFETY:

- a) All the Contract employees should be trained on Safety and certified by Safety/BHEL. New employees should undergo Safety Training before take up the work, without Safety Training no contract person is allowed to do any work.
- b) Use of cell phones and other mobile electronic devices (including hands-free devices) in the work spot and during the operation of a vehicle in the BHEL premises is prohibited.
- c) Contractor employees working on BHEL premises must wear appropriate personal protective equipment. Strict adherence to all required Personal Protective Equipment (Helmet, Safety Shoes and Goggles) are mandatory, specific PPE requirements will be based on job type or tasks performed.
- d) Excessively loose-clothing, dhoti/Lungi is prohibited especially around rotating or moving equipment.
- e) The contractors work area should be kept clean and orderly, free of clutter and trash, so that work may proceed in a safe and orderly manner. Tools should be safely positioned during use and promptly put away when no longer required.
- f) Fire-fighting, emergency shutdown devices, and life-saving equipment, should not be blocked by the contractors and access to the path to this equipment should be maintained at all times.
- g) Only approved equipment should be used in locations where flammable mixtures are present. A Hot Work Permit is required when open flames, or electric arcs are in the work area and while handling flammable materials.
- h) Smoking is not allowed in work area.
- i) BHEL operate under a comprehensive Emergency Response Plan. Contractor should be aware of the site Emergency Response Plan and communicate that plan to all their employees.
- j) It is recommended that the contractor should know & display the emergency phone number like Fire, Ambulance, Safety, Security etc. at their work area.
- k) It is the responsibility of the contractor to understand and use the appropriate Work Permits and to verify any permit requirements at the location. Contractor must make necessary arrangements with their Representative to acquire appropriate authorization to perform those operations at the site.

4.8.10 TERMS & CONDITIONS of the Contract shall be applicable to the extent that the condition therein do not supersede these special condition given below:

- a) The Contractor or his/ her crew should handle the machinery and other equipment's entrusted to them by BHEL with utmost care and return them safely after execution of stipulated work. The cost of damage, repair due to improper handling of machinery and equipment will be recovered from the contractor.
- b) Contractor shall supervise the work carried out by his/her employees.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- c) Contractor shall ensure that the employees deployed in the premises of BHEL are physically and mentally fit and do not have any criminal record. Such employees should possess requisite skill, proficiency, qualification, experience etc.
- d) Contractor shall maintain appropriate records of his/her employee's deployed carry out the job(s).
- e) Contractor will be responsible for the good conduct of his/her employees. In case any misconduct/misbehaviour by any employee, the contractor will replace such employee(s) immediately.
- f) Contractor will ensure that the job is executed through his/her employees only and under any circumstances; the contractor will neither deploy any casual employee to carry out the job nor shall subcontract the job without prior written permission.
- g) Contractor shall be solely responsible for non-payment / delayed payment of minimum contribution under EPF & MP Act, ESI Act, Bonus, etc.
- h) In case, the contractor fails to make payment of wages to his/her employees or remittance of contribution to the concerned authorities, the security deposit / other dues / running bills under the contract can be utilized by BHEL to discharge the liability of the contractor.
- i) The liability for any compensation on account of injury sustained by an employee of the contractor will be exclusively that of the contractor.
- j) Contractor shall observe provisions of the Factories Act, 1948 in respect of working hours, holidays, rest intervals, leave and overtime to his/her employee. No work shall be done on second / third shift, overtime, Sundays or on other declared holidays without proper permission.
- k) The Contractor should maintain a 'Work Diary' containing the details of work executed by him from time to time on Shift/ Daily basis and obtain the signature from official concerned nominated for this purpose for having executed the work correctly and satisfactorily.
- l) The proof of execution of work should be submitted along with each bill (printed form with covering letter and proof for execution of work).
- m) Necessary gate entry pass will be issued by BHEL Security Department for Contract Workmen based on your application duly forwarded by the Contract Executing Department and approved by HR/ Welfare/ Contract Cell on fulfilment of the Statutory Obligation by the Contractor. In order to ensure compliance to Minimum Wage payment to all workmen entering the factory premises, the entry of manpower shall be regulated based on the quoted/awarded value and the prevailing minimum wages.
- n) In the event of termination of contract for any reason whatsoever, the contractor shall withdraw all his/her employees from the establishment of BHEL. In case, contractor decides to terminate services of his/her employees, he should settle all terminal dues including retrenchment compensation.
- o) The Contractor has to equip himself with standard wire ropes, nylon ropes, belt, lifting tackles, tools etc. In addition, BHEL will supply special type of wire ropes, lifting tackles, tools etc., to the Contractor free of cost as and when required if necessary.
- p) The contractor is directly responsible for injuries / death of vehicle driver or any person employed by him as well as to the third party occupants or other users arising due to accident or otherwise of vehicle during the contractual period. At any point of time, BHEL will not be responsible for any loss / damage either to the person or to the vehicle arising out of accident of the vehicle for performing the contractual obligations.
- q) Any damage to BHEL materials due to rough and faulty handling by the contractor's men will have to be made good by the contractor to BHEL. Similarly, if any damage caused to BHEL equipment's/installation, property of third party in the course of work by the contractor's men, the same shall be made good by the contractor.
- r) The workmen engaged under this contract should not be permitted to stay inside BHEL complex after completing their day's work. It will be the responsibility of the contractor to take the labourers out of BHEL Complex as soon as their day's work is over.
- s) WCM will be arranging the contract. User Department is to be approached by the contractor regarding execution of work, Bill Certification, Bill processing / passing, Payment, Penalty, Contract closing etc.

4.9.10: Bidder Declaration:

- a) We declare that we will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications,



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

- b) In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

4.9.11: Resolution of Disputes:

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

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Annexure ... to the Terms and conditions of the tender.

The Annexure (as below) together with its appendices will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in the terms and conditions of the tender.

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

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

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

The cost of arbitration shall be borne as per the award of the Arbitrator.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Subject to the arbitration in terms of Clause above, the Courts at TRICHY shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable :

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

Annexure :BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores.
5. Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
6. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
7. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the

Service contract for Cleanings, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.

8. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within 15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.
9. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
10. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
11. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
12. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
13. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
14. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.
15. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
16. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
17. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.

18. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
19. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
20. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
21. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.
22. Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.
23. The proceedings of Conciliation under this Scheme may be terminated as follows:
 - a. On the date of signing of the Settlement agreement by the Parties; or,
 - b. By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
 - c. By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
 - d. By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
 - e. On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.
24. The Conciliator(s) shall be entitled to following fees and facilities:

SI No	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.

Authorized Signature and seal

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Sl No	Particulars	Amount
2	Towards drafting of settlement agreement	In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator) In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator) In cases involving claim and/or counter-claim of more than Rs 10 crores.
		Rs 1,00,000/- (per Conciliator) Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.
3	Secretarial expenses	Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC. Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC
4	Travel and transportation and stay at outstation	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)	
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.
		Ordinarily, the IEC Member(s) would be entitled to travel by air Economy Class.

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

SI No	Particulars	Amount
5	Venue for meeting	Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region / Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.

25. The parties will bear their own costs including cost of presenting their cases / evidence / witness(es) / expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
26. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
27. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
28. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.
29. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
30. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/ regulatory body, as the case may be.
31. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
 - a. Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
 - b. admissions made by the other party in the course of the Conciliator proceedings;

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

- c. proposals made by the Conciliator;
 - d. The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
32. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
33. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
34. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.
35. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.

Appendix I

FORMAT FOR SEEKING CONSENT FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

M/s. (Stakeholder's name)

Sub: Resolution of the Disputes through conciliation by Independent Expert Committee (IEC).

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Sir,

With reference to above referred Contract/MoU/Agreement/LOI/LOA, you have raised certain Disputes/claims. Vide your letter dated_____ you have requested BHEL to refer the Disputes/claims to IEC for Conciliation.

We are enclosing herewith Format (3) for giving consent and the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. You are requested to give your unconditional consent to the said terms and conditions of the Scheme by returning the same duly sealed and signed on each page. On receipt of your consent, matter will be put to the Competent Authority for consideration and decision.

Please note that BHEL has also certain claims against you (if applicable). BHEL reserves its right to agree or not to agree conciliation of the said disputes through BHEL and this letter is being issued without prejudice to BHEL's rights and contentions available under the contract and law.

Yours faithfully,

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Representative of BHEL

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Appendix II

FORMAT FOR GIVING CONSENT BY CONTRACTOR / VENDOR / CUSTOMER / COLLABORATOR / CONSORTIUM PARTNERS FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

BHEL

.....

Sub: Resolution of Disputes through Conciliation by Independent Expert Committee (IEC).

Ref: Contract/MoU/Agreement/LOI/LOA No & date_____

With reference to above referred contract, our following bills/invoices/claims submitted to BHEL are still unpaid giving rise to Disputes:

SL. no.	Claim Description	Bill submitted to BHEL (no. and date)	Amount of the bill/claim	Amount received from BHEL	Outstanding Amount

Accordingly, we request you to kindly refer the Disputes in respect of above claims to IEC for Conciliation.

We hereby agree and give our unconditional consent to the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. We have signed the same on each page and enclosed it for your consideration.

Yours faithfully,

(Signature with stamp)

Authorized Representative of Contractor

Name, with designation Date

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Appendix III

STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO THE IEC BY BOTH THE PARTIES

1. Chronology of the Disputes
2. Brief of the Contract/MoU/Agreement/LOI/LOA
3. Brief history of the Disputes:
4. Issues:
5. Details of Clam(s)/Counter Claim(s):

Sl. No.	Description of claim(s)/Counter Claim	Amount (in INR)Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

Note— *The Statement of Claims/Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/Counter Claims. The statement of Claims/Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.*

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

THIRD PARTY NON-DISCLOSURE AGREEMENT

(TO BE FILLED, STAMPED & SIGNED AND UPLOADED IN E-PROCUREBHEL.CO.IN PORTAL)

I, _____, on behalf of the _____ (Name of Company), acknowledge that the information received or generated, directly or indirectly, while working with BHEL, Trichy on contract is confidential and that the nature of the business of the BHEL, Trichy is such that the following conditions are reasonable, and therefore:

I warrant and agree as follows:

I, or any other personnel employed or engaged by our company, agree not to disclose, directly or indirectly, any information related to the BHEL, Trichy Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:

- a). Technical information: Methods, drawings, processes, formulae, compositions, systems, techniques, inventions, computer programs/data/configuration and research projects.
- b). Business information: Customer lists, project schedules, pricing data, estimates, financial or marketing data,

On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL, Trichy all documents and property of BHEL, Trichy, including: drawings, blueprints, reports, manuals, computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL, Trichy 's business, or in any way obtained by me during the course of contract. I further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.

This obligation of confidence shall continue after the conclusion of the contract also.

I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL, Trichy and are reasonable given the nature of the business carried on by the BHEL, Trichy I agree that this agreement shall be governed by and construed in accordance with the laws of country.

I enter into this agreement totally voluntarily, with full knowledge of its meaning, and without duress.

Dated at _____, this ____ day of _____, 20__.

Name

Company

Signature

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

ANNEXURE – I

E-PAYMENTS

- This annexure to the techno-commercial bid explains how to make e-payments to BHEL- Tiruchirappalli through SBI e-collect.
- Vendors (EMD and SD Payments payable by others) can utilise this facility.
- Payments can be made using Internet Banking, Debit Cards/Credit Cards etc.
- SBI Charges a minimum amount (Service Charge) for every transaction. This may vary according to the MODE selected.

STEP BY STEP PROCEDURE:

Login to <https://www.onlinesbi.com>

1. Select State Bank Collect available on the top (pre login page)
2. Accept the terms and conditions and click "PROCEED"
3. Select State "TAMILNADU "and Institution type "INDUSTRY ".
4. Select "BHEL TRICHY under "INDUSTRY".
5. In the next page, Select APPROPRIATE category, fill details correctly & click "SUBMIT".
6. If all details entered are correctly populated, click "CONFIRM "to proceed.
7. Make payment as per your convenience. (Options available are payment of fees through SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches).
8. SAVE & Keep the copy of receipt for future reference.

HOW TO TAKE RECEIPT FOR A PAYMENT MADE, EVEN ON A LATER DATE:

(PLEASE CHECK THE STATUS BEFORE MAKING PAYMENT SECOND TIME)

1. Login to www.onlinesbi.com
2. Select State Bank Collect available on the top (pre login page)
3. Accept the terms and conditions and click "PROCEED"
4. Select "PAYMENT HISTORY "option available on the left side of screen.
5. Using two options as mentioned below, you can get the receipt:
 - a. Type the same Date of Birth, Mobile Number which you have entered at the time of making payment through SB collect. Select the date range and submit.
 - b. If you know the payment reference number, then enter the Reference number (DU...) along with anyone information (Date of Birth / Mobile number, which you have entered at the time of making payment). Select the date range and submit.
6. In the next page, take print out of receipt.

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

ANNEXURE – II

(TO BE SUBMITTED ON CHARTERED ACCOUNTANT LETTER HEAD not required for UDYAM Certificate)

This is to Certify that M/s
 (herein after referred to as 'company') having its registered office at
 is registered under MSMED Act 2006, Entrepreneur Memorandum
 No. (Part – II) OR (UAN)..... Dtd:, Category:
 (Micro / Small). (Copy enclosed).

Further Verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722 (E) dated October 5, 2006:
 ₹ Lakhs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under MSMED Act, 2006:
 ₹ Lakhs

(Strike off whichever is not applicable)

The above investment of Lakhs is within permissible limit of Lakhs for..... Micro / Small (Strike off whichever is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/Small) (Strike off whichever is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322 (E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name –

Membership Number –

Seal of Chartered Accountant

Authorized Signature and seal



Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

ANNEXURE-III

(TO BE AGREED IN E-PROCUREMENT PORTAL)

No Deviation Declaration

I/We, have read and clearly understood all the Terms and conditions in Tender Schedule of and accordingly accept the same without any deviation what so ever.

- I/ We unconditionally agree to all the tender conditions and no new conditions are imposed by us in the technical / price bid. I understand in the event of imposing any condition in the technical / price bid, such condition would be ignored by BHEL and only the prices will be considered for the purpose of evaluation”
- I/ We confirm that none of our group concern or affiliates etc., appears on the list of banned firms / companies by BHEL (list available on www.bhel.com) nor any of the Director / Partner / proprietor of bidder / such group concern or affiliate etc. are involved with such company.
- I/ We also declare that, we have not been suspended or black listed or issued with Show Cause Notice by BHEL- Trichy or any other BHEL Unit or any PSU/ Government organization.
- I/ We confirm that other than us, none of our group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).
- I/ We confirm that if any of the above statement / information furnished by us in this tender is found to be false/ fake at any stage of tender evaluation or during execution of contract, BHEL will have the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc. as deemed fit.

Yours Sincerely,

Signature of the Bidder with date & Seal

Authorized Signature and seal

Tender No.: 9472100083

July 30, 2021

Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Annexure-IV

PART-II (PRICE BID)

(FOR REFERENCE ONLY) (Vendor to fill the value in excel sheet and upload in <https://eprocurebhel.co.in> portal)

Validate Print Help

Item Wise BoQ

Tender Inviting Authority: WCM / BHEL / TRICHY 620 014

Name of Work: Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23

Contract No: 9472100083 /30.07.2021

Name of the Bidder/ Bidding Firm / Company :																																																																																															
PRICE SCHEDULE																																																																																															
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)																																																																																															
NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER #	TEXT #																																																																																										
Sl. No.	Item Description	Quantity	Units	Lump sum Value for Two (02) Years (Excluding GST) Rs. P	TOTAL AMOUNT In Words																																																																																										
1	2	4	5	7	13																																																																																										
1	Service contract for Cleaning, Degreasing, Pickling & passivation of Titanium, copper and Stainless Steel components/consumables, Painting of CS components/assemblies as per contract requirements of ATP-SPL PROJECTS AT BHEL TRICHY FOR 2021-23																																																																																														
1.01	<table border="1"> <thead> <tr> <th>S.no.</th> <th>Description</th> <th>Qty.</th> <th>UOM</th> <th>% allocation</th> </tr> </thead> <tbody> <tr><td>1</td><td>Pickling of ti wire</td><td>700</td><td>meter</td><td>5.76%</td></tr> <tr><td>2</td><td>Degreasing of Ti components Sub assembly</td><td>120</td><td>Square meter</td><td>4.16%</td></tr> <tr><td>3</td><td>Pickling and Passivation of SS component</td><td>30</td><td>Square meter</td><td>1.65%</td></tr> <tr><td>4</td><td>ID /OD cleaning of SS tubes</td><td>1,500</td><td>meter</td><td>12.84%</td></tr> <tr><td>5</td><td>Degreasing and Pickling of Ti consumable</td><td>60</td><td>KG</td><td>1.08%</td></tr> <tr><td>6</td><td>Pickling and passivation of SS component</td><td>100</td><td>Square meter</td><td>5.48%</td></tr> <tr><td>7</td><td>Pickling of Titanium tubes</td><td>1,500</td><td>Number</td><td>12.84%</td></tr> <tr><td>8</td><td>Pickling of Titanium plates/Sheets</td><td>120</td><td>Square meter</td><td>4.34%</td></tr> <tr><td>9</td><td>Buffing and painting of housing Assy</td><td>60</td><td>Square meter</td><td>2.20%</td></tr> <tr><td>10</td><td>Pickling of Ti Wire</td><td>1,200</td><td>meter</td><td>9.87%</td></tr> <tr><td>11</td><td>Degreasing of Ti components and sub assy</td><td>300</td><td>Square meter</td><td>8.27%</td></tr> <tr><td>12</td><td>ID /OD cleaning of Titanium tubes</td><td>2,000</td><td>Number</td><td>23.12%</td></tr> <tr><td>13</td><td>Pickling and Passivation of SS component</td><td>80</td><td>Square meter</td><td>4.39%</td></tr> <tr><td>14</td><td>Pickling and Passivation of CopperGasket</td><td>3</td><td>Number</td><td>0.80%</td></tr> <tr><td>15</td><td>Painting of CS body Assy</td><td>20</td><td>Square meter</td><td>1.07%</td></tr> <tr><td>16</td><td>Painting of CS body Assy</td><td>40</td><td>Square meter</td><td>2.13%</td></tr> <tr><td colspan="2">Total %</td><td></td><td></td><td>100.00%</td></tr> </tbody> </table>	S.no.	Description	Qty.	UOM	% allocation	1	Pickling of ti wire	700	meter	5.76%	2	Degreasing of Ti components Sub assembly	120	Square meter	4.16%	3	Pickling and Passivation of SS component	30	Square meter	1.65%	4	ID /OD cleaning of SS tubes	1,500	meter	12.84%	5	Degreasing and Pickling of Ti consumable	60	KG	1.08%	6	Pickling and passivation of SS component	100	Square meter	5.48%	7	Pickling of Titanium tubes	1,500	Number	12.84%	8	Pickling of Titanium plates/Sheets	120	Square meter	4.34%	9	Buffing and painting of housing Assy	60	Square meter	2.20%	10	Pickling of Ti Wire	1,200	meter	9.87%	11	Degreasing of Ti components and sub assy	300	Square meter	8.27%	12	ID /OD cleaning of Titanium tubes	2,000	Number	23.12%	13	Pickling and Passivation of SS component	80	Square meter	4.39%	14	Pickling and Passivation of CopperGasket	3	Number	0.80%	15	Painting of CS body Assy	20	Square meter	1.07%	16	Painting of CS body Assy	40	Square meter	2.13%	Total %				100.00%	1.00	Lump sum value for Two (02) Years		INR Zero Only
S.no.	Description	Qty.	UOM	% allocation																																																																																											
1	Pickling of ti wire	700	meter	5.76%																																																																																											
2	Degreasing of Ti components Sub assembly	120	Square meter	4.16%																																																																																											
3	Pickling and Passivation of SS component	30	Square meter	1.65%																																																																																											
4	ID /OD cleaning of SS tubes	1,500	meter	12.84%																																																																																											
5	Degreasing and Pickling of Ti consumable	60	KG	1.08%																																																																																											
6	Pickling and passivation of SS component	100	Square meter	5.48%																																																																																											
7	Pickling of Titanium tubes	1,500	Number	12.84%																																																																																											
8	Pickling of Titanium plates/Sheets	120	Square meter	4.34%																																																																																											
9	Buffing and painting of housing Assy	60	Square meter	2.20%																																																																																											
10	Pickling of Ti Wire	1,200	meter	9.87%																																																																																											
11	Degreasing of Ti components and sub assy	300	Square meter	8.27%																																																																																											
12	ID /OD cleaning of Titanium tubes	2,000	Number	23.12%																																																																																											
13	Pickling and Passivation of SS component	80	Square meter	4.39%																																																																																											
14	Pickling and Passivation of CopperGasket	3	Number	0.80%																																																																																											
15	Painting of CS body Assy	20	Square meter	1.07%																																																																																											
16	Painting of CS body Assy	40	Square meter	2.13%																																																																																											
Total %				100.00%																																																																																											
Total in Figures					INR Zero Only																																																																																										
Quoted Rate in Words					INR Zero Only																																																																																										

Digital Signature of Authorized Signatory



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14
PLANT LABORATORY

Doc. No: PR: CHEM:07-14
Rev: 06
Date: 21.09.2012
Page 1 of 4

NUCLEAR PROJECTS/BARC PROCEDURE FOR PAINTING

Rev No	REV DATE	PREPARED	REVIEWED	APPROVED	
				BHEL	BARC
06	21.09.2012	 K.Ramesh AsstEngg Gr-II	 V.Rajasekharan Manager Plant Laboratory	 Dr K. P. Dhandapani, AGM/ Plant Laboratory	 (C. N. Rai) BARC/ QA



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14
PLANT LABORATORY

Doc. No: PR: CHEM:07-14
Rev: 06
Date: 21.09.2012
Page 2 of 4

Rev.No:	Date	Details of Revision	Remarks
01	20-02-2009	Changes made to accommodate components of Nuclear projects/BARC	--
02	17-05-2009	Clause 2.6 modified	--
03	02-02-2010	Clause 3.1 and 4.1 modified(Table-A)	Request from QS
04	07-09-2011	Clause 4.1 modified	Request from QA
05	20.12.2011	Clauses 3.6.0 to 3.6.6 included	Request from QS – BARC
06	21.09.2012	Clause 3.2 & 3.4 modified	Request from QS – BARC



**BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14
PLANT LABORATORY**

**Doc. No: PR: CHEM:07-14
Rev: 06
Date: 21.09.2012
Page 3 of 4**

1.0 SCOPE:

- 1.1 The following procedure details the methods for pretreatment and painting of the exterior surface of components.

2.0 PRETREATMENT:

- 2.1 The component shall be inspected thoroughly prior to painting, to ensure that the surface is free from grease, oil and other external contaminants.
- 2.2 The surface shall be thoroughly cleaned using solvents like Acetone/ Trichloroethylene/Petroleum solvents.
- 2.3 The inspection shall be carried out for the total removal of grease/ oil by water film break test (Water film break test is performed by wetting the surface with water and observing the pattern of wetting).
- 2.4 The areas, where the water is not uniformly wetting and shattering into tiny droplets, shall be further cleaned with alkaline degreasing agent.
- 2.5 After complete degreasing, the surface shall be rinsed with water till the surface is free of alkali and dried. Water film break test shall be further conducted to ensure the total removal of grease/oil.
- 2.6 In addition to the above, the cleaned area shall be wiped with white cotton cloth soaked in Acetone, particularly in areas where non-destructive examination had been carried out; the cloth shall not show any soil or dirt.
- 2.7 The substrate shall be further cleaned using power tool/ emery paper etc.
- 2.8 The surface shall be cleaned to remove any soil left after power tool cleaning using white cotton cloth soaked in Acetone.



**BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14
PLANT LABORATORY**

Doc. No: PR: CHEM:07-14
Rev: 06
Date: 21.09.2012
Page 4 of 4

3.0 PAINTING:

3.1 The first coat of heat resistant Aluminium paint which withstands a temperature of 400°C - IS 13183 Gr-2 (Ref.clause 4.0) shall be applied by spray or brush, within 4 to 6 hrs. of power tool cleaning.

3.2 The paint film shall be allowed to cure for 48 hrs. in a day light or after 4 to 6 hrs, keep the assy in electric furnace for 4 to 6 hrs at 180C° to 200 C°

3.3 The dry film thickness (DFT) shall not be less than 20 microns.

3.4 The second coat of the above paint shall be applied and allowed to cure for min. 24 hrs in a day light or after 4 to 6 hrs, keep the assy in electric furnace for 4 to 6 hrs at 180C° to 200 C°

3.5 The DFT of the two coats (cumulative) shall not be less than 40 microns. After curing peel off test shall be carried out, the paint shall adhere tightly to the metal.

3.6.0 Methods for determination of DFT in magnetic and non magnetic materials by the following methods

3.6.1 For non magnetic material and non magnetic coatings-- microscope method.
Microscopic examination of cross section.

3.6.2 A part of the painted article is cut out and mounted in resin and the film thickness is measured using microscope.

3.6.3 A test coupon with area approximately 25mm square shall be simulated all the job condition is painted along with the job.

3.6.4 Take measurements at seven places along the edge of the paint film and calculate the mean thickness.
(As per IS 101/part 3/sec 2:1989. Reaffirmed 2004)
Reproducibility: ±10%
Bias : 2µm

3.6.5 For magnetic material and non magnetic coatings – magnetic method.(Elcometer method)

3.6.6 A standard Elcometer can be used to measure the coating thickness. And minimum of seven readings shall be taken to obtain representative results over the painted area.
Reproducibility: ±10%
Bias : ±2% +1µm

4.0 DETAILS OF PAINTS:

4.1 The heat resistant Aluminum paint which withstands a temperature of 400°C of IS 13183 Gr-2(latest) shall be procured from BHEL approved suppliers.

ADVANCED TECHNOLOGY PRODUCTS OPERATION PLANNING AND CONTROL

PROCEDURE FOR PICKLING OF CU GASKET

PR:B2/B3:CU/00

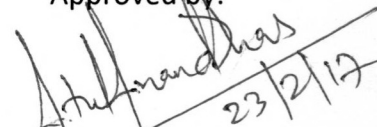
DT:23/02/2017

1. Cleaning by water.
2. Cleaning by Trichloro-ethylene.
3. DM Water cleaning.
4. Preparation of pickling solution:
 - a) Add following chemicals to prepare solution
 - b) Ortho phosphoric acid – 500ml (100% conc)
 - c) Acetic acid – 250ml (100% conc)
 - d) Nitric acid – 200ml (50% conc)
 - e) 4 drops of Hydrofluoric acid (100% conc) No water
5. Immersion of job in pickling solution for 5-10 seconds, water cleaning and then swabbing if required.
6. Water cleaning for 10mins (minimum) with adequate flow and ensure removal of chemicals.
7. Drying
8. Acceptance : Uniform colour.

Prepared by:


(RAMASAMY K)
Sr.Manager/OP&C/ATP
23/2/17.

Approved by:


(ATUL DHAS)
23/2/17
BARC-MUMBAI.

OP&C/ATPPICKLING OF TITANIUM WELDING WIRE FOR ECDS

(Ø 0.8, Ø 1.6 & Ø 3 mm)

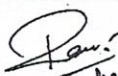
DATE: 07-05-2012

Procedure:

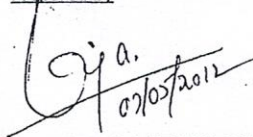
- 1 Clean the consumable surface thoroughly by emery sheet of grade 400. Minimum 16 passes (4 passes/sheet) and again be cleaned with Birla 3M emery for 6 times.
- 2 Clean the surface with spirit soaked lint-free white cotton cloth till no dirt is picked up. While doing this, the person who is doing the process has to use white lint-free cotton gloves to handle the wires.
- 3 Clean the surface with dry white cloth.
- 4 Place the wire in a vessel filled with pickling solution (of 15% Hydrofluoric Acid and remaining 85% of potable water) for 30 seconds. Then, the wire is taken out from the solution and rinsed with potable water followed by rinsing in de-mineralized water.
- 5 After the above operations, the pickled surfaces of the wire shall have GOOD SILVERY LUSTER COLOR. Absence of stains, dark stripes, patches, temper colours are indication of good pickling. It shall be checked by QC/BHEL.
- 6 Pickled wires shall not be touched with bare hand or in contact with any other surfaces. Preserve the wires in a lint-free white cloth.

REFERENCE:- PR:CHEM:07-26 – dt. 07-06-2007

Approved By


31/5/12
(C. N. Ravi)
BAM/qs.

Prepared By


07/05/2012

L.N. RAJASEKARAN
Senior Manager / OP & C
Advanced Technology Products
BHEL, TIRUCHY - 620 014.



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14

Doc. No: PR: CHEM:07-25

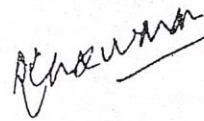
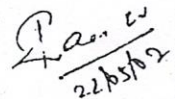
Rev: 00

Date: 16.05.2007

Page 1 of 5

27/3

NUCLEAR PROJECTS/BARC
PROCEDURE FOR PICKLING OF
TITANIUM TUBE/PIPE AND PLATE EP FACES

Rev No	REV DATE	PREPARED	REVIEWED		APPROVED	
					BHEL	BARC
00	16-05-2007	 V. Rajasekharan Sr. Scientific Officer Plant Laboratory	 L. Gragori Dy. Manager Plant Laboratory	 M. Antony Peter SM Methods Welding ATP	 R. Easwaran Sr. DGM Plant Laboratory	 C. N. Ravi 22/5/07

C. N. RAVI
ENGINEER-G
GOVT. OF INDIA
DAE/BARC/LWRDQA
BLDG. No. 2 & 4, BHEL
TIRUCHY - 620 014.

CBF113664

RECORD OF REVISIONS

Rev.No:	Date	Details of Revision	Remarks
00	16-05-2007	NEW PROCEDURE	



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI-14

Doc. No: PR: CHEM:07-25
Rev: 00
Date: 16.05.2007
Page 3 of 5

1.0 SCOPE:

1.1 The following procedure explains the method for surface cleaning, pickling of Titanium Tube/Pipe and Plate EP surfaces.

2.0 DEGREASING:

2.1 The component shall be thoroughly swabbed with lint free cotton cloth soaked in Acetone or Sprit.

2.2 Cleaning shall be carried out till fresh portion of the white cloth does not pick up any soil from the surface of the component.

3.0 PICKLING:

3.1 The EP faces and near by surfaces up to minimum of 100 mm on both ID and OD side shall be pickled using the following acid mixture.

Nitric Acid	: 38 to 40 % v/v
Hydrofluoric Acid	: 3.5 to 4 % v/v
Water	: Remaining.

3.2 Tank made of stainless steel material only shall be used for the preparation of the above acid bath.

3.3 The period of Pickling shall be about 9 to 11 minutes at room temperature for First pickling and 4 to 6 minutes for second pickling.

3.4 Alternately, the pickling operation shall also be carried out by swabbing the above pickling solution, where the size and shape of the component is a constraint for immersion process.



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI-14

Doc. No: PR: CHEM:07-25
Rev: 00
Date: 16.05.2007
Page 4 of 5

4.0 RINSING AFTER PICKLING/DESCALING OPERATION:

4.1 The component shall be thoroughly flushed with hot water having temperature $\geq 70^{\circ}\text{C}$ water and cleaned well using lint free cotton cloth to get a bright metal surface.

4.2 After thorough rinsing with cold water, the rinsing does not show any free acidity when tested with Methyl Orange indicator (The rinsing do not show red color with indicator).

5.0 RINSING WITH DEMINERALISED WATER:

5.1 After rinsing with service water, the component shall be rinsed with DM water (Refer Para 9.0).

5.2 At the end of rinsing operation with DM water, the rinsing does not show opalescence with 1% w/v Silver Nitrate solution.

6.0 INSPECTION:

6.1 After completion of pickling operation, The pickled surfaces shall have good silvery luster colour, If not repeat the pickling operation (maximum of Two pickling operation allowed)

7.0 PRESERVATION:

7.1 The pickled surfaces shall not be touched by bare hand or in contact with any other surfaces

7.2 The component shall be packed in lint free cloth and polythene sheets to prevent shop floor contamination till taken for further welding operations.

8.0 SAFETY PRECAUTIONS:

8.1 All safety precautions shall be taken while handling the acids.

8.2 Rubber gloves, aprons, respirator and safety glasses shall be used by the personnel who are performing/ supervising the aforesaid operations.



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14

Doc. No: PR: CHEM:07-25
Rev: 00
Date: 16.05.2007
Page 5 of 5

- 8.3 The entire operation shall be carried out in a clean room with ventilated area.
- 9.0 The quality of DM water for the rinsing operations shall be as follows:
- | | |
|----------------|----------------------------|
| P ^H | : 6.5 to 7.5 |
| Conductivity | : Less than 10 μ s/cm. |
| Chloride | : Less than 0.5 ppm. |
- 10.0 After pickling the welding shall be done with in 24 hours for auto welding and 36 hrs for manual welding.
- 11.0 Before welding the pickled surfaces shall be cleaned with good quality spirit (The spirit shall not leave any residue on a clean glass plate after evaporation).
- 12.0 A mockup shall be conducted through OPS to qualify the pickling procedure before applying it on jobs
- 13.0 REFERENCE:
- The above operations are in line with reference given by ATP/welding methods
- 14.0 NOTE:
- The pickling time, date, Duration, pickling solution composition, temperature of pickling shall be recorded.

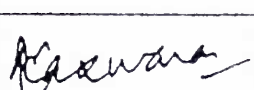
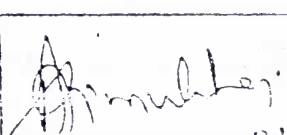
BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI - 620 014

PLANT LABORATORY

PR:CHEM:07-19/01

PAGE :01 OF 05

NUCLEAR PROJECTS/BARC
PROCEDURE FOR
CLEANING, PICKLING/DESCALING AND PASSIVATION OF
STAINLESS STEEL (AUSTENITIC) COMPONENTS

REV	DATE	PREPARED	REVIEWED	APPROVED	
				BHEL	BARC
01	21-04-99	 A. SUNDARARAJU	 M. SOMU	 R. EASWARAN	 21.04.99

Revisions

Rev.No.	Clause revised	Details
01	11.0	Quality of DM water changed.

✓

1.0 SCOPE:

- 1.1 The following procedure explains the method for surface cleaning, pickling/ descaling and passivation of stainless steel (austenitic) components.

2.0 CLEANING:

- 2.1 The component shall be thoroughly swabbed with lint free cotton cloth soaked in Acetone.
- 2.2 Cleaning shall be carried out till fresh portion of the white cloth does not pick up any soil from the surface of the component.

3.0 PICKLING/DESCALING:

- 3.1 The components which have undergone machining operation shall be waived from the pickling/descaling operation.
- 3.2 The components which have undergone heat treatment (solution annealing)/ welding operations shall be pickled/ descaled so as to remove the black/brown oxide, using the following acid mixture.
- | | |
|-------------------|----------------|
| Nitric Acid | : 20 % v/v |
| Hydrofluoric Acid | : 1 to 2 % v/v |
| Water | : Remaining. |
- 3.3 Tank made of stainless steel material only shall be used for the preparation of the above acid bath.
- 3.4 The period of immersion shall be about 1 hr. or till all the black/brown oxide on the component is removed.
- 3.5 The component shall be periodically scrubbed with SS wire brushes to ease the removal of oxide layer.
- 3.6 The pickling/descaling shall also be carried out at 50 to 55°C, depending up on the adherence of the oxide layer.
- 3.7 Alternately, the pickling/descaling operation shall also be carried out by applying an inert paste prepared using the above pickling solution, where the size and shape of the component is a constraint for immersion process.

4.0 RINSING AFTER PICKLING/DESCALING OPERATION:

4.1 The component shall be thoroughly flushed with service water and cleaned well using lint free cotton cloth to get a bright metal surface.

4.2 After thorough rinsing, the rinsings do not show any free acidity when tested with Methyl Orange indicator (The rinsings do not show red colour with indicator).

5.0 RINSING WITH DEMINERALISED WATER:

5.1 After rinsing with service water, the component shall be rinsed with DM water (Refer para 11.0).

5.2 At the end of rinsing operation with DM water, the rinsings do not show opalescence with 1% w/v Silver Nitrate solution.

6.0 PASSIVATION :

6.1 The passivation of the component shall be carried out by immersion process in a bath of Nitric Acid.

6.2 The concentration of the bath shall be as follows :

Nitric Acid	: 20% v/v
Sodium dichromate	: 5% w/v (For machined components only)
Demineralised Water	: Remaining

6.3 Tank made of stainless steel material only shall be used for the preparation of this acid bath.

6.4 Period of immersion shall be 30 minutes to one hour or till the passivity of the surface is attained, which is revealed by passivity test using passivity test kit.

6.5 Alternately, passivation operation shall also be carried out by applying an inert paste prepared using the above bath solution, where the size and shape of the component is a constraint for immersion process.

7.0 RINSING AFTER PASSIVATION:

7.1 The component shall be thoroughly rinsed with DM water (Refer Para 11.0).

7.2 The rinsing operation shall be carried out till the rinsings do not show any free acidity when tested with Methyl Orange indicator as indicated in Para 4.2.

8.0 INSPECTION:

8.1 After completion of passivation operation, passivity check shall be conducted on the surface at random using "Passivity Test Kit".

8.2 If passivation is found satisfactory, the component/ areas where the test had been carried shall be rinsed with DM water and dried using compressed air free from oil, dust and moisture.

9.0 PRESERVATION:

9.1 The component shall be handled using clean cotton gloves.

9.2 The component shall be packed in polythene sheets to prevent shop floor contamination till taken for further operations.

10.0 SAFETY PRECAUTIONS:

10.1 All safety precautions shall be taken while handling the acids.

10.2 Rubber gloves, aprons, respirator and safety glasses shall be used by the personnel who are performing/ supervising the aforesaid operations.

10.3 The entire operation shall be carried out in a ventilated area.

11.0 The quality of DM water for the rinsing operations shall be as follows :

pH	: 6.5 to 7.5
Conductivity	: Less than 10 μ s/cm.
Chloride	: Less than 0.5 ppm.

12.0 REFERENCE:

The above operations are inline with ASTM A 380.

13.0 NOTE:

The exact method for pickling/descaling and passivation operations (either immersion or paste application) to be adopted for specific component shall be agreed upon between BHEL and BARC and the same shall be incorporated in the relevant OPS along with the procedure document number.



Bharat Heavy Electricals Ltd.,
Tiruchirappalli -14

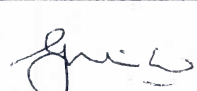
Doc. No: PR:CHEM:07-30:00

Rev: 01

Date:24-09-2009

Page 1 of 4

PROCEDURE FOR DEGREASING OF TITANIUM COMPONENTS & SUB-ASSEMBLIES

REV No	REV DATE	PREPARED	REVIEWED	APPROVED	
				BHEL	QS/BARC
01	24-09-2009	 K.Ramesh Assistant Engineer (Scientific)Gr-II Plant Laboratory	 V.Rajasekharan DM/ Plant Laboratory	 Dr.G.Ravichandran SDGM Plant Laboratory	 25/9/09 (C. N. Rao) BHEL/QA.



Bharat Heavy Electricals Ltd.,
Tiruchirappalli -14

Doc. No: PR:CHEM:07-30:00

Rev: 01

Date:24-09-2009

Page 2 of 4

RECORD OF REVISIONS

Rev.No:	Date	Details of Revision	Remarks
00	01-08-2008	New	---
01	24-09-2009	Clause 2.3 modified	As per instruction from BARC

	Bharat Heavy Electricals Ltd., Tiruchirappalli -14	Doc. No: PR:CHEM:07-30:00 Rev: 01 Date:24-09-2009 Page 3 of 4
---	---	--

1.0 SCOPE:

- 1.1 The following procedure details the methods for degreasing of titanium components & sub-assemblies and also removing the excess lubricant which remain on the interior surface of the tubes, after tube expansion

2.0 FACILITIES

- 2.1 Two storage tanks made of stainless steel material with controlled heating facility (one for cleaning chemical and other for DM water)
- 2.2 approved cleaning chemical, **MAXICLIN-2SP** (a proprietary alkaline degreasing chemical of M/S. Plastipeel chemicals & plastics PVT..LTD., Mumbai) or equivalent after approval by plant Laboratory.
- 2.3 The quality of DM water shall be checked before use and shall meet the following requirements :
- | | |
|----------------|-----------------|
| pH | --- 6 - 7 |
| Total Residue | --- < 2 ppm |
| Total Chloride | --- < 0.05 ppm |
| Conductivity | --- < 2μ Mho/cm |

3.0 CLEANING WITH ALKALINE DEGREASER:

- 3.1 In the first tank , prepare the cleaning chemical solution . The Concentration of the bath shall be about 5% W/V of MAXICLINE –2SP
- 3.2 The temperature of the bath during the entire operation shall be maintained between 85°C and 90°C
- 3.3 The components shall be immersed in the hot bath solution of 5% W/V of MAXICLINE –2SP for 15 minutes. During dipping operation the bath shall be agitated using compressed air free from dust and oil. The components should be lifted and re-dipped periodically for further 15 minutes. The entire process shall be carried out along with three test coupons coated with oil & grease. After 30 minutes the test coupons shall be examined for the presence of oil and grease by water film break test. If the test is found to be OK, the component shall be lifted from the bath for flushing. Before lifting the components for flushing the froth / oil floated on the surface of the bath solution shall be skimmed off to avoid contamination



**Bharat Heavy Electricals Ltd.,
Tiruchirappalli -14**

Doc. No: PR:CHEM:07-30:00

Rev: 01

Date:24-09-2009

Page 4 of 4

4.0 FLUSHING

- 4.1 The degreased component shall be flushed with service water till the flushing does not show any pink colour with Phenolphthalein.
- 4.2 Immediately after services water flushing, DM water shall be used for flushing till the flushing show no chloride when tested with silver nitrate

5.0 DRAYING

- 5.1 The DM water wetted surface shall be dried using oil and dust free compressed air or Nitrogen gas.

6.0 DOCUMENTATION

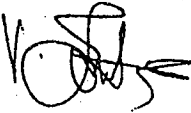
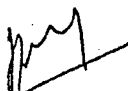
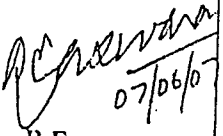
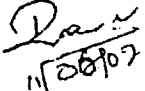
- 6.1 The degreasing process for the component pertaining to specific work order shall be suitably documented.



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14

Doc. No: PR: CHEM:07-26
Rev: 00
Date: 07.06.2007
Page 1 of 6

NUCLEAR PROJECTS/BARC PROCEDURE FOR CLEANING OF TITANIUM WELDING WIRES

Rev No	REV DATE	PREPARED	REVIEWED		APPROVED	
					BHEL	BARC
00	07-06-2007	 V. Rajasekharan Sr. Scientific Officer Plant Laboratory	 I. Gragori Dy. Manager Plant Laboratory	 M. Antony Peter SM Methods Welding ATP	 R. Easwaran Sr. DGM Plant Laboratory	 C.N. Ravi ENGINEER- GOVT. OF INDIA DAE/BARC WED/QA BLDG. No. 2 & 4/BHEL TIRUCHY - 620 014.



BHARAT HEAVY ELECTRICALS LTD.,
TIRUCHIRAPPALLI -14

Doc. No: PR: CHEM:07-26
Rev: 00
Date: 07.06.2007
Page 2 of 6

RECORD OF REVISIONS

Rev.No:	Date	Details of Revision	Remarks
00	07-06-2007	NEW PROCEDURE	---



1.0 SCOPE:

1.1 The following procedure explains the method for surface cleaning of Titanium Welding wires.

2.0 DEGREASING:

2.1 The welding wire shall be degreased as follows

2.2 The wire shall be degreased and pickled by the persons using white gloves only

2.3 General requirements:

2.3.1 The bath, hooks, tongs etc used for degreasing and pickling shall be made up of stainless steel material only

2.4 Degreasing solutions

- a) Sodium Phosphate 10 - 20 g/l
Calcinated soda 10 - 20 g/l
Caustic Soda 20 - 40 g/l.
Balance - potable water.
- b) CinatonoL'Cintamid-5/Washing powder 5- 10g/l
Trisodium Phosphate (Na_3PO_4) 30 - 35 g/l
Balance - potable water

2.5 The welding wire bundle has to be degreased using one of the solutions mentioned above.

2.6 The concentration of the above degreasing solutions bath

- a) Weight of the chemicals in gram
- b) Volume of water in litre

Shall be recorded before preparing solutions.

2.7 The welding wire bundle has to be dipped in the bath at 70 - 80°C for 20 - 30 min. After degreasing, to remove the chemicals lift the bundles using special hangers and wash with 40 - 50°C hot potable water (10 - 20 min) and then with cold DM water also, till the washings are free from chemicals.



- 2.8 After thorough rinsing with cold DM water, the rinsing does not show any free alkalinity with Phenolphthalein indicator (The rinsing should not show pink colour with the indicator).
- 2.9 Then dry the wire bundles using hot air.
- 2.10 Inspection & Acceptance:
- 2.11 The effectiveness of degreasing shall be ensured, by comparing the silvery lustre of the degreased wire with standard sample.
- 2.12 The degreased wire shall be used for welding after final cleaning with sprit and if the welding gives lustre silver colour, it is acceptable, If not the degreasing shall be repeated as above.
- 3.0 PICKLING:
- 3.1 If black patches (due to oxides and graphite grease) are found and also if temper colors indicative of surface oxidation are noticed on the filler wire, the wires should undergo pickling.
- 3.2 The welding wire bundle shall be pickled using the following acid mixture.
- | | |
|-------------------|--------------|
| Hydrofluoric Acid | : 15 % v/v |
| Potable Water | : Remaining. |
- The concentration of the above pickling solutions bath,
a) Volume of the Hydrofluoric Acid in liter
b) Volume of water in litre
Shall be recorded before preparing solutions.
- 3.3 Tank made of stainless steel /polyvinyl or similar material shall be used for the preparation of the above acid bath.



- 3.4 The welding wire bundle has to be immersed in the above bath at room temperature (18 -25°C) for 8 - 15 min. (depending on wire surfaces)
Minimum consumption of pickling solution will be one liter per 2 kg of wire
- 4.0 RINSING AFTER PICKLING OPERATION:
- 4.1 The welding wire bundle shall be thoroughly flushed with potable water.
- 4.2 After thorough rinsing with cold water, the rinsing does not show any free acidity when tested with Methyl Orange indicator (The rinsing should not show red color with indicator).
- 5.0 RINSING WITH DEMINERALISED WATER:
- 5.1 After rinsing with service water, the component shall be rinsed with DM water (Refer Para 9.0).
- 5.2 At the end of rinsing operation with DM water, the rinsing does not show opalescence with 1% w/v Silver Nitrate solution.
- 6.0 INSPECTION:
- 6.1 After completion of pickling operation,
- 6.2 The pickled surfaces shall have good silvery luster color.
- 6.3 Absence of stains, dark stripes, patches, temper colours are indication of good pickling.
- 6.4 Hydrogen (%) content shall be checked before and after pickling. If the (%) of Hydrogen exceeds ~~0.002~~ 0.0024, Vacuum degassing shall be done as per the procedure for Vacuum degasification.
- 7.0 PRESERVATION:
- 7.1 The pickled surfaces shall not be touched with bare hand or in contact with any other surfaces
- 7.2 Welding wire bundle shall be packed in lint free cloth and polythene sheets to prevent shop floor contamination till



they are taken for further welding operations.

7.3 The wire bundles shall be stored in a closed dry PVC/SS containers with proper identification tag

8.0 SAFETY PRECAUTIONS:

8.1 All safety precautions shall be taken while handling the acids.

8.2 Rubber gloves, aprons, respirator and safety glasses shall be used by the personnel who are performing/ supervising the aforesaid operations.

8.3 The entire operation shall be carried out in a clean room with ventilated area.

9.0 The quality of DM water for the rinsing operations shall be as follows:

p ^H	: 6.5 to 7.5
Conductivity	: Less than 10 μ s/cm.
Chloride	: Less than 0.5 ppm.

10.0 REFERENCE:

The above operations are in line with reference given by ATP/welding methods

11.0 NOTE:

The pickling time, date, Duration, pickling solution composition, temperature of pickling shall be recorded.
