एन एच पी सी लिमिटेड
NHPC LIMITED
(भारत सरकार का उद्धम)
(A GOVT. OF INDIA ENTERPRISE)

तीस्ता-V पावर स्टेशन
Teesta-V Power Station, Balutar

REQUEST FOR PROPOSAL (RFP)

Name of work: Request for technical and commercial proposal for "Re-babbitting of retrieved bearing pads of Turbine guide bearing, Lower guide bearing, Upper guide bearing & Thrust bearing of 3X170MW Teesta-V Power Station".

एनएचपीसीलिमिटेड
NHPC LIMITED
(भारत सरकार का उद्यम)
(A Govt. of India Enterprise)
तीस्ता v पावर स्टेशन
Teesta V Power Station
सिंगतम, पूर्वीसिक्किम- 737134
Singtam, East Sikkim- 737134.

A Navratna Company

IS/ISO 9001 IS/ISO 14001 IS 18001
आई एम एस प्रमाणित पावरस्टेशन
IMS certified Power Station
दूरभाष/Ph: 03592-247349
फ़ैक्स/Fax: 03592-247227/349
Email: teestav-contract@nhpc.nic.in
CIN No. L40101HR1975GOI032564

NH/TSV/Cont/MC-153/NIT-972/2024-25/328 **Dated: 14/11/2024**

REQUEST FOR PROPOSAL (RFP)

1. Online Request for technical and commercial proposal (RFP) from eligible **Sole Bidders** for the work of **"Re-babbitting of retrieved bearing pads of Turbine guide bearing, Lower guide bearing, Upper guide bearing & Thrust bearing of 3X170MW Teesta-V Power Station."**

A. Brief details of the tender:		
Sl. No.	**Item**	**Description**
i)	Mode of tendering	e-Procurement System
		Cover-I: Online Techno-Commercial Bid and price bid
ii)	Tender ID No.	**2024_NHPC_ 835017 _1**
iii)	Tender reference No.	**NH/TSV/Cont/MC-153/NIT-972/2024-25/328 Dated: 14/11/2024**
iv)	Period of Bid Validity	**120 days**
v)	Tender inviting Authority	**Dy. General Manager (Elect.)** **Contract Division, Teesta-V Power Station, Balutar,** **Singtam, Distt : East Sikkim-737134** **E-mail: teestav-contract@nhpc.nic.in**
B. Critical dates of tender:		
vi)	Publishing Date & Time	14/11/2024 at 16:00 Hrs
vii)	Document Download Start Date & Time	14/11/2024 at 16:00 Hrs
viii)	Pre bid meeting Date & Time	Not required.
ix)	Last date of Receipt of clarification of Bid	18/11/2024 at 14:30 Hrs
x)	Bid Submission Start Date & Time	14/11/2024 at 16:00 Hrs
xi)	Online Bid Submission Closing Date & Time	21/11/2024 at 17:30 Hrs
xii)	Online Bid Opening of Technical Bid and price bid (Cover-I)	Venue: Contract Division, Teesta V Power Station, Balutar Date: **23/11/2024** Time: 16:00 Hours

2 Complete Bid Document /Tender Document can be viewed and down loaded from Central Public Procurement (CPP) Portal **https://eprocure.gov.in/eprocure/app**. The site can also be viewed through e-procurement corner of NHPC website **www.nhpcindia.com** and CPP Portal. Any Bidder who wishes to quote for this Tender can download the Tender Document from aforesaid portal after online Bidder registration for e-tendering.

3 **COURT OF COMPETENT JURISDICTION**: Any legal action taken or proceeding initiated on any of the terms of the contract shall be only in the jurisdiction of Hon'ble High Court of Sikkim.

4 Disclaimers

This RFP is neither an agreement and nor an offer by NHPC to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived in relation to the Project. This RFP document and any assumptions, assessments and statements made herein do not purport to contain all the information that each Bidder may require. The Bidder shall bear all its costs associated with or relating to the preparation and submission of proposal pursuant to this RFP. Where necessary, NHPC reserves the right to amend or supplement the information, assessment or assumptions contained in this RFP. NHPC also reserves the right to withdraw the RFP or foreclose the procurement case at any stage. The issuance of this RFP does not imply that NHPC is bound to shortlist a Bidder for the Project. NHPC also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

Requisite details in this regard are attached herewith as under for proposal:

(i) Detail of Site Location.
(ii) Technical Specifications & Scope of work.
(iii) Drawings.
(iv) Tentative Special Conditions
(v) Technical & Commercial Offer

(i) **DETAIL OF SITE LOCATION:**

NHPC Ltd (A Govt. of India Navratna Enterprise), Teesta-V PS desires to construct a Prefab structure for Kendriya Vidyalaya at Teetsa-V Power Station, Balutar.

Teesta-V PS (510MW) is located in Gangtok District of Sikkim. The project envisages harnessing of Teesta water, between Dikchu and Sirwani. The site location (proposed prefab KV school) is in Left Bank side, Balutar. Proper approach road is available with adequate of space available for unloading of materials for the structure.

Nearest Railway Station: - Siliguri, approximately 110 Kms from Teesta-V PS, Balutar.
Nearest Airport: - Bagdogra, approximately 110 Kms from Teesta-V PS, Balutar.
Nearest Bus Stop: - Singtam, approximately 06 Kms from Teesta-V PS, Balutar.

(ii) TECHNICAL SPECIFICATIONS & SCOPE OF WORK :

Name of Work: Re-babbitting of retrieved bearing pads of Turbine guide bearing, Lower guide bearing, Upper guide bearing & Thrust bearing of 3x170 MW Teesta-V Power Station.

SCOPE OF WORK

1) Collection and transportation of all bearing pads i.e., one set (consisting of 12 Nos. of pads) of TGB pad, one set (consisting of 12 Nos. of pads) of LGB pad, one set (consisting of 8 Nos. of pads) of UGB padand one set (consisting of 9 Nos. of pads) of Thrust padfrom Teesta-V Power Station to thepremises of the Contractor.
2) Removal of all old Babbitt / white metal from theExisting bearings.
3) Cleaning and de-greasing of bearing pads.
4) Tinning the surface on which Babbitt material to be deposited.
5) All the holes are to be plugged to prevent accumulation of dust during removal of old Babbitt and during re-babbitting and machining.
6) Deposit new Babbitt/ white metal of composition as per IS-25 1966 grade 84 by centrifugal casting.
7) Babbitt thickness after finishing/machining for bearing as per technical specification and drawing.
8) The Babbitt material must be tested from any NABL accredited / Govt. approved laboratory for material composition.
9) All the dimensions and tolerances are to be strictly maintained as per drawing and technical specification.
10) The agency has to submit the test certificates of ultrasonic testing for bonding and dimensional check report along with the material.
11) Material JIS G31 06 SM490B or equivalent to be deposited in case of minor repair in non-Babbitt part of bearing pad.
12) Transportation of the material from firm's works to Teesta-V Power Station.

Technical Specification:

Babbitt material chemical and mechanical composition must confirm to **JISH5401WJ-2 or equivalent** to all Bearing pads.

Turbine Guide Bearing Pads:

1. Bearing Journal Diameter- 1352.7mm.
2. Single Pad dimensions:310mmX260mm.
3. Each pad Final Thickness of Babbitt material —3.15mm
4. Babbitt material deposition by centrifugal casting method.

Lower Guide Bearing Pads:

1. Bearing Journal Diameter is 2250mm.
2. Each Pad dimensions: 350mmX250mm.
3. Each pad Final Thickness of Babbitt material —3.00mm
4. Babbitt material deposition by centrifugal casting method.

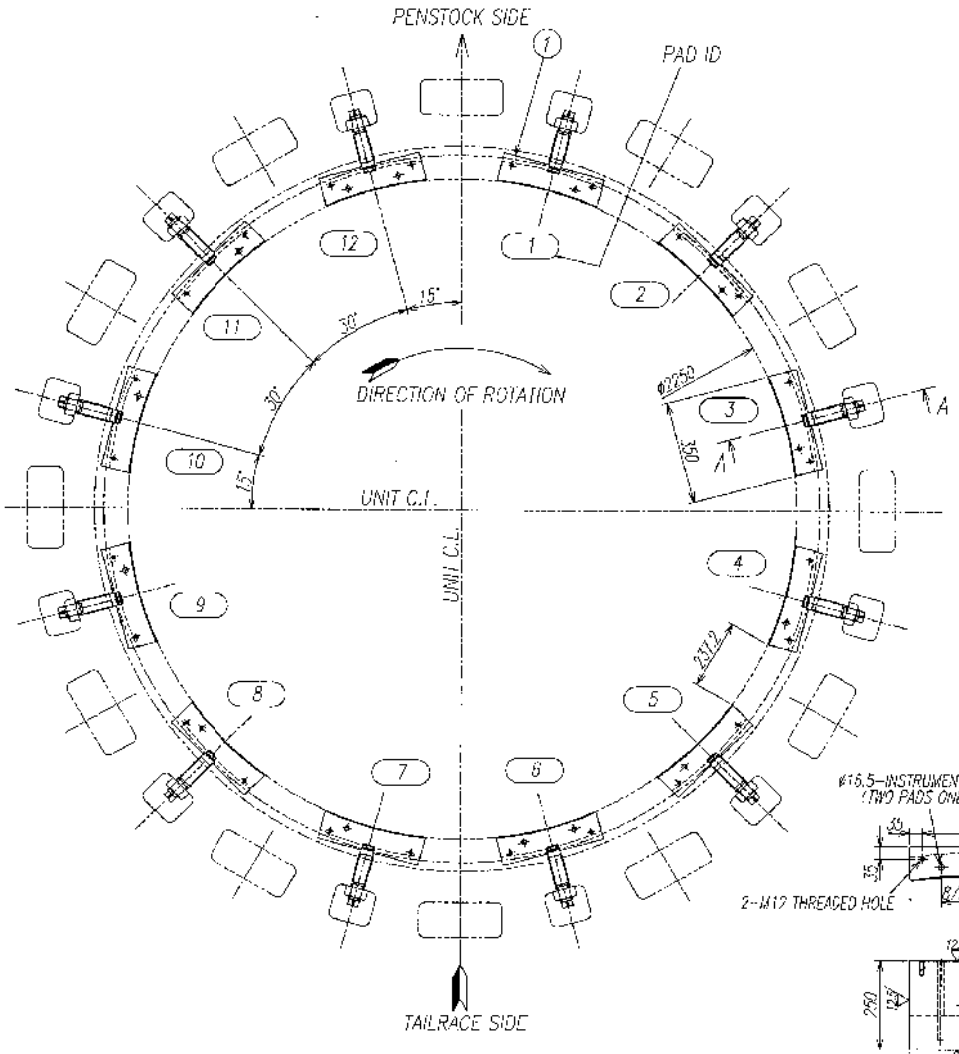
Upper Guide Bearing Pads:

1. Bearing Journal Diameter is1200mm.
2. Each Pad dimensions: 250mmX200mm.
3. Each pad Final Thickness of Babbitt material —3.00mm
4. Babbitt material deposition by centrifugal casting method.

Thrust Bearing Pads:

1. Bearing Journal Diameter is1250 to 2245mm.
2. Each Pad dimensions: 497.5mmX381.6X806.29 mm.
3. Each pad Final Thickness of Babbitt material —3.00mm
4. Babbitt material deposition by centrifugal casting method.

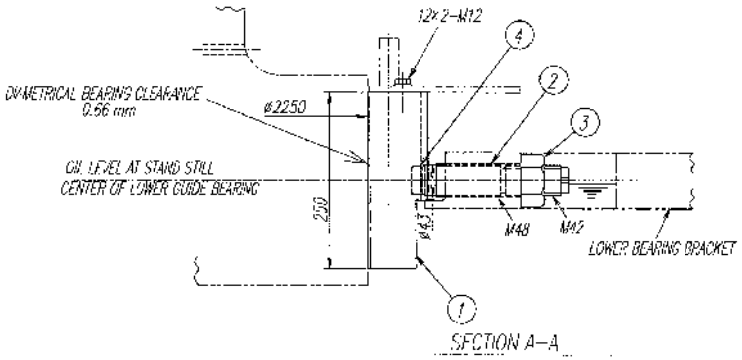
(iii)Drawings.:

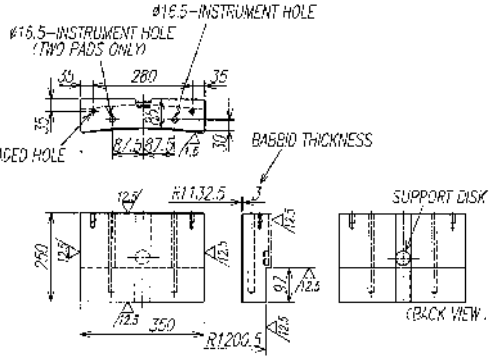


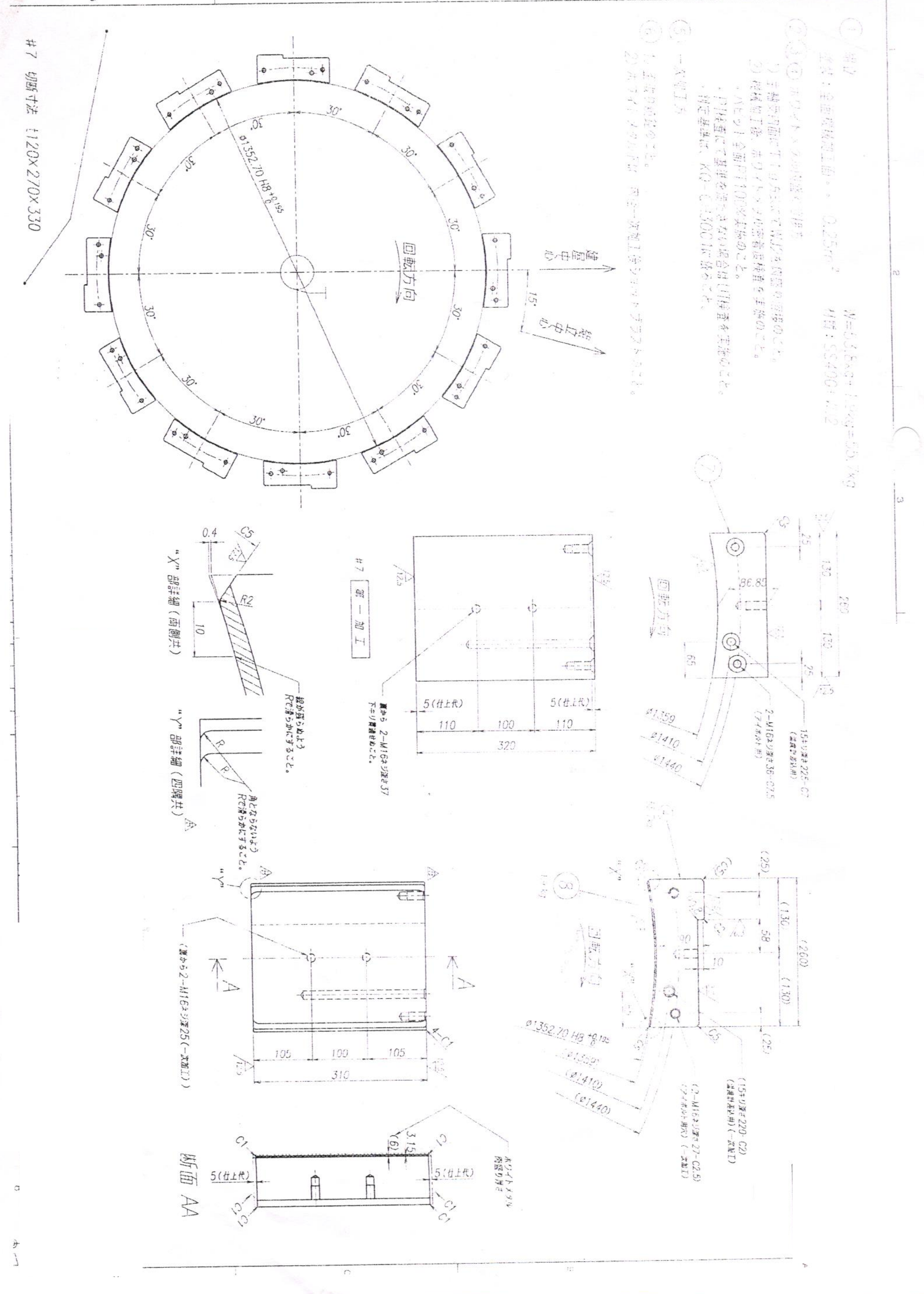
PARTS LIST

P.No.	NAME OF PARTS	MATERIAL	QTY.	REMARKS
1	LOWER GUIDE BEARING PAD	JIS G3106 SM490B JIS H5401 WC2	12	
2	ADJUSTING SCREW	JIS G4051 S55C	12	M48
3	LOCKING NUT	JIS STRENGTH DIVISION 4	12	M42
4	SUPPORT DISK	JIS G4805 SUJ2	12	

NOTE
REFERENCE DRAWING
1KD0G3812 ASSEMBLY OF THRUST AND LOWER GUIDE BEARING

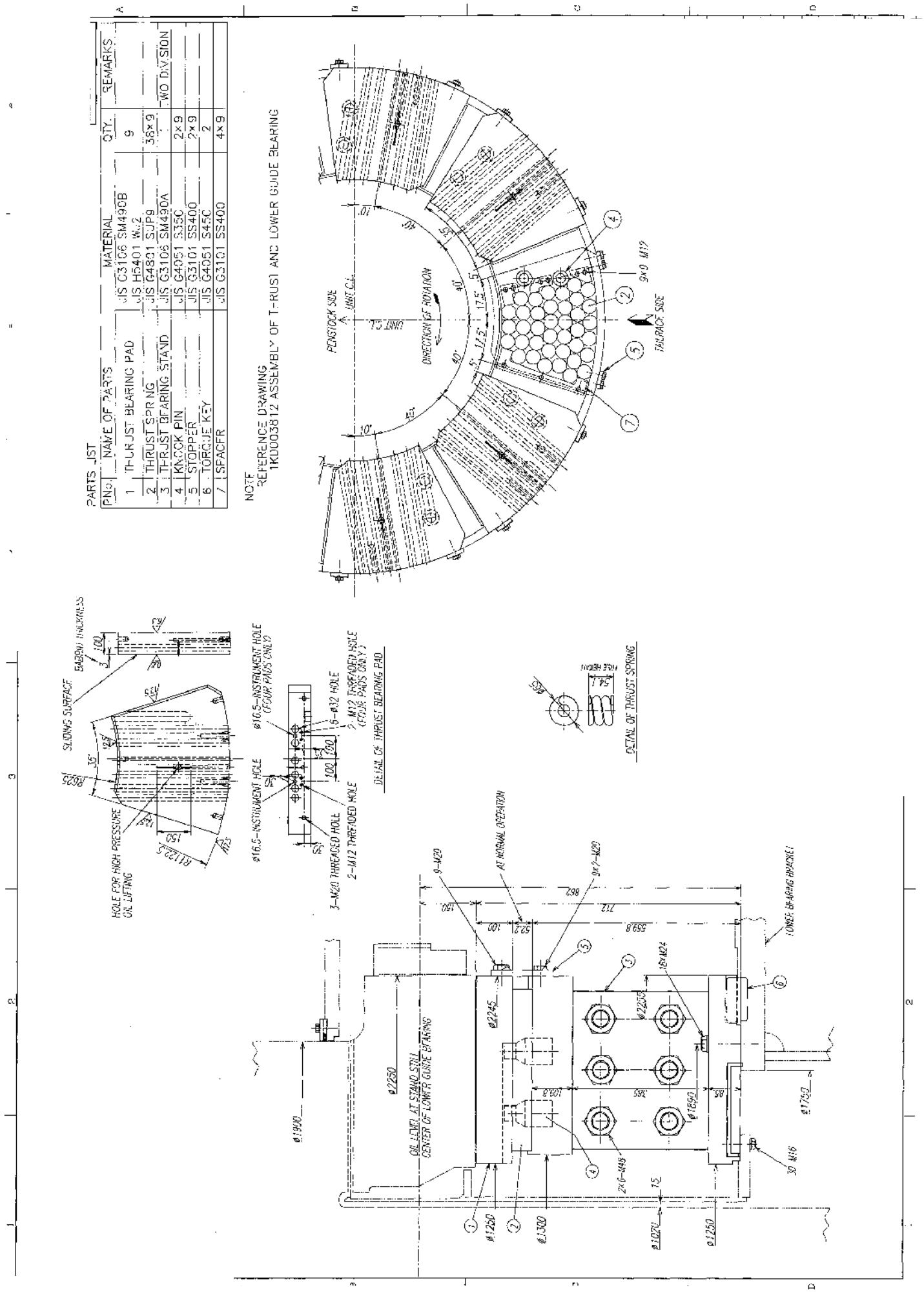






#7 切断寸法 t120x270x330
φ1352.70 H8
30°
15°
回転方向
#7 第一加工
5(仕上代)
110
100
320
310
105
"X" 部詳細(両側共)
"Y" 部詳細(四隅共)
断面 AA
ø1359
ø1410
ø1440
86.85

1106485/2024/SEC-PHMM-Teesta V



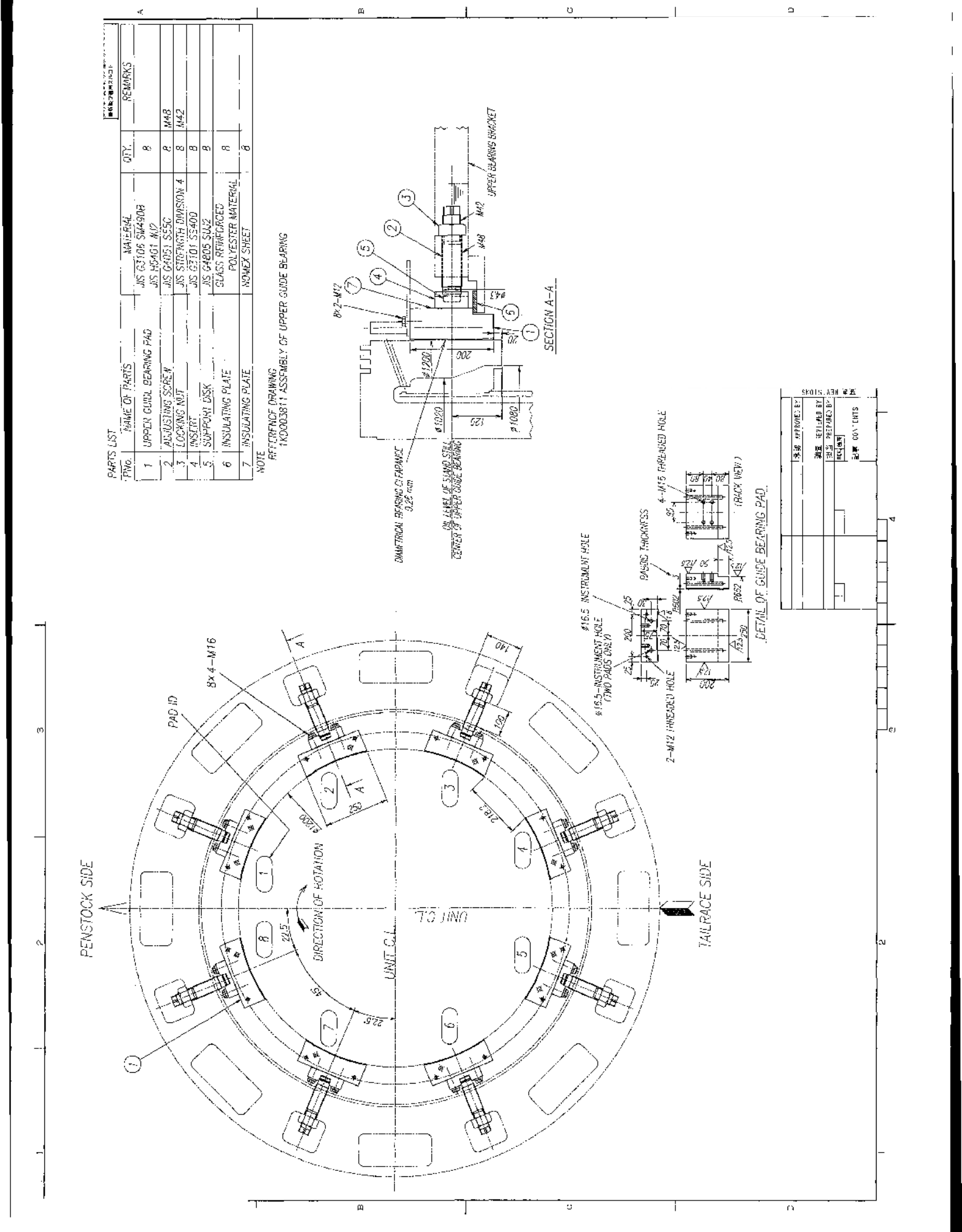
PARTS LIST

PNO.	NAME OF PARTS	MATERIAL	QTY.	REMARKS
1	THRUST BEARING PAD	JIS C3106 SM490B JIS H5401 Wh2	9	
2	THRUST SPRING	JIS G4801 SUP9	36×9	WO DIVISION
3	THRUST BEARING STAND	JIS G3106 SM490A		
4	KNOCK PIN	JIS G4051 S35C	2×9	
5	STOPPER	JIS G3101 SS400	2×9	
6	TORQUE KEY	JIS G4051 S45C	2	
7	SPACER	JIS G3101 SS400	4×9	

NOTE
REFERENCE DRAWING
1KL0038I2 ASSEMBLY OF T-RUST AND LOWER GUIDE BEARING

PENSTOCK SIDE
A UNIT C/L
UNIT C/L
DIRECTION OF ROTATION
TAILRACE SIDE
9×9 M12
SLIDING SURFACE
HOLE FOR HIGH PRESSURE OIL LIFTING
DETAIL OF THRUST BEARING PAD
DETAIL OF THRUST SPRING
AT NORMAL OPERATION
OIL LEVEL AT STAND STILL
CENTER OF LOWER GUIDE BEARING
LOWER BRACKET

1106485/2024/SEC-PHMM-Teesta V



(iv)Tentative Special Conditions

SPECIAL CONDITIONS OF CONTRACT

The following special conditions shall be read in conjunction with the corresponding relevant provisions made in the General Conditions of Contract and in case of any discrepancy or variation or contradiction between them, the provisions made under these Special Conditions of Contract, shall prevail.

1. All the drawing enclosed along with the tender documents is for tendering purpose only.
2. Any problem related to the said works not connected with the Deptt. directly or indirectly is to be dealt and solved by the contractor for which Deptt. will not be responsible.
3. All materials are to be arranged and supplied by the contractor.
4. The work of re-babbiting of bearing pads shall be done as per scope of work, TS and QAP.
5. **Completion Time:** The above work shall be completed in **120 days** from the date of issue of LOA including to & fro transportation period of the bearing pads from Power Station to Ex-shop / Contractor's premises. The firm should depute their representative immediately for transportation of damaged bearing pads.
6. The technical specification as attached for execution of work is for guidance purpose only. The actual methodology / technical specification may be varied / change as per requirement of work. The decision of Engineer-In-Charge in this regard shall be final and binding.
7. 100% Payment shall be made to the contractor within 45 days from the date of receiving / acceptance* of all or 90% of awarded value of respective repaired bearing pads at Teesta-V Power Station and subsequent submission of following documents:

   (i) Submission of invoice / e-invoice.

   (ii) Dispatch clearance issued by NHPC as per approved QAP.

   (iii) E-way bill.

   (iv) Complete inspection report as per approved QAP.

   (v) Performance Security Deposit as per LOA / GCC Clause.

   (vi) Form GSTR-3B

   (vii) ITR of previous financial years.

   Balance payment if any shall be made within 45 days after successful completion of the work as per contract.

   ***Day of Acceptance means** – day of actual delivery of goods or the rendering of services; or where any objection is made in writing by the buyer regarding acceptance of goods or services within fifteen days from the date of the delivery of goods or the rendering of services, the day on which such objection is removed by the supplier.*

8. **Liquidated Damage**: The contractor has to take all efforts to complete the work in stipulated time as per contract subject to satisfaction of EIC. If the contractor fails to complete the work within the schedule completion period as specified, the contractor shall be liable to pay LD @ 0.5% of the contract sum per week for the period of delay subject to maximum 10% of the contract sum.

9. **Defect Liability period:** The defect liability period shall be 12 (Twelve) months from the certified date of completion of work.

10. **Transit Insurance:** The transit insurance for Transportation of damaged bearing pads from NHPC site to works site and back to NHPC site shall be ensured by the Contractor before lifting the material from NHPC's premises. Amount on account of transit insurance has to be borne by the contractor. Documents in this regards are to be submitted to Engineer in charge at the time of handing over the material.

11. **Inspection and Quality control:**

    The bidder should strictly follow the steps of QAP so as to achieve the specified dimension, profile and surface finish of manufactured / repaired materials as per the drawing, specifications and to the satisfaction of Engineer In-charge (EIC) or his authorized representative. Inspections will be carried out as per approved QAP provided by NHPC Limited. Suitable devices/instruments required for direct and correct measurement of different dimensions (such as micrometer, venire of digital instruments etc.) to be arranged by the firm. Relevant test reports (as mentioned in the QAP/TS), duly verified, are to be submitted along with the material as a part of dispatch documents.

    For carrying out inspection of different stages (strictly as per QAP) at firm's premises by NHPC representative, the firm should intimate probable date of inspection well in advance, i.e. at least 8-10 days before the tentative date of inspection which is also included in the above mentioned completion time of 120 days.

    Testing of material to be got done from the NABL accredited testing laboratory / Govt. approved testing laboratory (as mentioned in the QAP/TS)

12. **Indemnity Bond:** An Indemnity Bond duly notarized amounting to ₹ 7.00 Crore (Rupees Seven Crore) only shall be submitted by the Contractor to the E.I.C. against the damaged bearing pads before lifting the material from the premises of NHPC, Balutar.

13. The contractor shall take utmost care in handling, placing in position of departmental materials, for any damage due to mishandling of department materials by the contractor, recovery shall be made at double the rate of stock issue rate of the component or market rate.

14. **Termination of Contract**: Corporation reserves the right to terminate the contract in full or part if the contractor breaches any of terms and condition of the contract.

15. **Court of Competent Jurisdiction:** Any action taken or proceedings initiated on any of the terms of this Agreement shall be only in the court of competent jurisdiction under the High Court of Sikkim at Gangtok.
16. NHPC reserves the right to cancel the order at any time without assigning any reason for such decision.

(v) **Technical & Commercial Offer:**

Name of Work: Re-babbitting of retrieved bearing pads of Turbine guide bearing, Lower guide bearing, Upper guide bearing & Thrust bearing of 3x170 MW Teesta-V Power Station.								
Sl. No.	**Description**	**Unit**	**Qty.**	**Rate (₹)**	**GST @ ……%**	**Rate (₹) with ……% GST**	**Final Rate (₹)**	**Amount (₹)**
1	Re-babbitting of one set (1set=12 nos.) of Turbine guide bearing pads	Set	1					
2	Re-babbitting of one set(1set=12 nos.) of Lower guide bearing pads	Set	1					
3	Re-babbitting of one set(1set=8 nos.) of Upper guide bearing pads	Set	1					
4	Re-babbitting of one set(1set=9 nos.)of Thrust bearing pads	Set	1					
5	To and fro Transportation charges of the material from Teesta—V PS to firm's works.	Lot	1					
							Grand Total (Rs.)	
In words:								

Notes:- 1) SAC Code of BOQ Items of Contract: ……..

2) Offered Rates (on RFP) should be inclusive of all taxes including applicable GST, transportation charge, local octroi & all other charges and should be quoted in manually on the above table.

(ii) Prospective bidder shall submit Company Prolife/credentials along their offer in support of their capability of offering quotation for this work.

(For & on behalf of NHPC Ltd.)

Dy. General Manager (Elect.)
Contract Division
Teesta-V Power Station
Email: teestav-contract@nhpc.nic.in

(Seal & Signature of Participated Firm)

BRIEF DESCRIPTION OF THE PROJECT

1. 1.1 ABOUT SIKKIM AND TEESTA RIVER.

Sikkim is a small and beautiful state located in the northeast Himalayas. It is one the youngest state of Indian union. It is surrounded by vast stretches of Tibetan plateau in the north, Chubi valley of Tibet and Kingdom of Bhutan in the east, Darjeeling Gorkha Hill council in the south and kingdom of Nepal in the west.

Due to prevalent cold and moderate climatic conditions with very low ambient dual level, the state presents ideal opportunity for development of high-tech industries like microelectronics and ancillary products which impose less burden on transportation facilities and earn rich dividends. However, for such developmental efforts, abundance of cheap and clean power is vital.

Sikkim is drained by a large number of perennial rivers, the prominent ones being Teesta and Ragit. The Teesta river originates from Zemu glacier and Rangit river from Talung glacier in west Sikkim which, after flowing for about 60kms, joins the Teesta river near the state border with West Bengal.

The elevation of Sikkim ranges from 300 m to 8583 m above mean sea level. It consists of lower, middle & higher hills.

1.2 LOCATION OF THE PROJECT

Nearest Railway Station :- Siliguri, approximately 110 Kms from Teesta-V PS, Balutar.

Nearest Airport :- Bagdogra, approximately 110 Kms from Teesta-V PS, Balutar.

Nearest Bus Stop :- Singtam, approximately 06 Kms from Teesta-V PS, Balutar.

1.3 BRIEF DESCRIPTION OF THE PROJECT

Teesta HE project, stage-V is located in South-East Sikkim. The project envisages harnessing of Teesta water, between Dikchu (27º 24’ 00’’ E: 88º 31’30’’N) and Sirwani (27º14’54’’E: 88 29’ 56’’N). The scheme comprise; 95m high Concrete Gravity Dam (located 2 Kms downstream of its confluence with Dikchu nala) 17.106 Km long HRT housed on the left bank, a 95m high, 30m dia Surge Shaft and an underground power house near Sirwani, to generate 510MW of Power, utilizing a gross head of 200m.