T E N D E R S P E C I F I C A T I O N

No. BHE/PW/PUR/WR-SJ/OJ-197

FOR

RATE CONTRACT FOR PROVIDING SERVICES ON TURNKEY BASIS FOR UNLOADING FROM TRAILER/CARRIER, LIFTING & SHIFTING AND PLACEMENT OF GENERATOR STATOR ON ITS FOUNDATION BY MEANS OF STRAND JACK METHOD

AT

VARIOUS Sites IN BHEL POWER SECTOR WESTERN REGION

M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA

PART: I - TECHNICAL BID

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

POWER SECTOR - WESTERN REGION

345, KINGSWAY - NAGPUR 440 001

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LEGEND:

$: Attached at the end of hard copy of Tender Specifications Part-I. Hosted in BHEL web page (www.bhel.com) as file titled **"GCC-OJ-197".**

@: Issued as separate hard copy booklet 'Tender Specifications Part-II (Price Bid-OJ-120)'. Hosted in BHEL web page (www.bhel.com) as files titled **"PRICE BID-OJ-197"**

Note:

Rest of the tender documents are included in Tender Specifications Part-I. Hosted in BHEL web page (www.bhel.com) as file titled "**TECH BID-OJ-197"**

BHARAT HEAVY ELECTRICALS LIMITED
(A Govt. of India Undertaking)
POWER SECTOR - WESTERN REGION
345, KINGS WAY - NAGPUR 440 001

NO.BHE/PW/PUR/WR-SJ/OJ-197

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AT

VARIOUS SiTES IN BHEL POWER SECTOR WESTERN REGION

M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA

EARNEST MONEY DEPOSIT: **Rupees 2.0 Lakhs**
LAST DATE FOR TENDER SUBMISSION: Please obtain updated information from web page "http://www.bhel.com" → Tender Notifications → View Corrigendum.

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **PART-I** AND **PART-II** ARE ISSUED TO:

M/s. ……

…….
PLEASE NOTE:
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)
Place: Nagpur
Date:

PROJECT INFORMATION

1.0	Project Information
	BHARAT HEAVY ELECTRICALS LIMITED (BHEL) IS GOVERNMENT OF INDIA UNDERTAKING "A NAVARATHNA COMPANY" AMONGST PUBLIC SECTOR COMPANIES IN INDIA. BHEL IS ONE OF THE LARGEST PSU IN THE FIELD OF ENGINEERING, DESIGN, MANAUFACTURING, SUPPLYING AND ERICTION & COMMISSIONING OF POWER PLANTS IN THE COUNTRY AND ABROAD. INTENT OF THIS TENDER IS TO FINALIZE A RATE CONTRACT FOR PROVIDING SERVICES ON TURNKEY BASIS FOR UNLOADING FROM TRAILER/CARRIER, LIFTING & SHIFTING AND PLACEMENT OF GENERATOR STATOR ON ITS FOUNDATION BY MEANS OF STRAND & JACK METHOD AT VARIOUS POWER PROJECTS IN INDIA MAINLY IN THE STATES OF MADHYAPRADESH, CHHATTISGARH, MAHARASTRA, GUJARAT,GOA

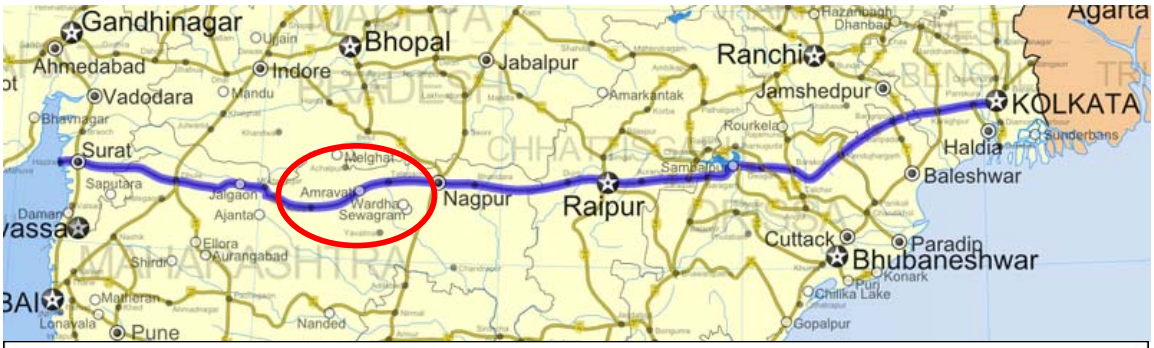
AMRAVATI

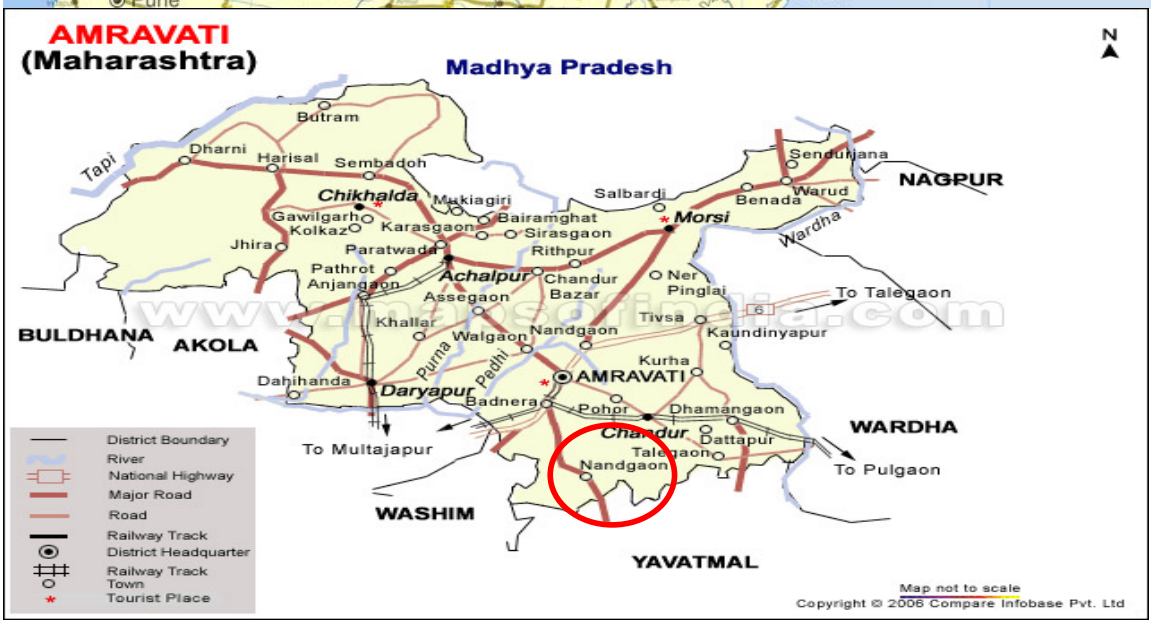
BACKGROUND

INDIABULLS POWER LTD. is setting up a coal based 5x270 MW Thermal Power Project at Nandgaonpeth, Additional Amravati Industrial Area, Dist: Amravati, Maharashtra. Project Site is located at a distance of 22 KM from Amravati District on NH-6 near Nandgaonpeth.

Nearest Railwaiy Station : Badnera about 20 KM from project site.
Badnera is located at a distance of 175 KM from Nagpur on Howrah - Mumbai main line of Central Railways passing through Sevagram, Wardha, Pulgaon, Dhamangaon, Badnera.

Nearest Highway : National Highway No NH-6 (Surat to Kolkata).
Highway passes through Jagaon, Amravati, Nagpur, Raipur





Nearest Airport : Nagpur 150 KM (By road)

CLIMATE

Amravati is located between 20°56′N 77°45′E to 20.93°N 77.75°E. It has an average elevation of 343 metres. Amravati has a tropical wet and dry climate with hot, dry summers from March to June,

the monsoon season from July to October and warm winters from November to March. As far as the climate of the city is concerned, one can notice extreme variations in the temperatures. The summers in Amravati are very hot. The maximum as well as continuous rainfall is received, from the South Westerly monsoons, in the months of July and August.

Max Temp	:	44.5 Deg. C.
Min Temp	:	12.4 Deg. C
Rainfall	:	841.80 MM (Average)
Seismic Zone	:	Zone III as per IS : 1893

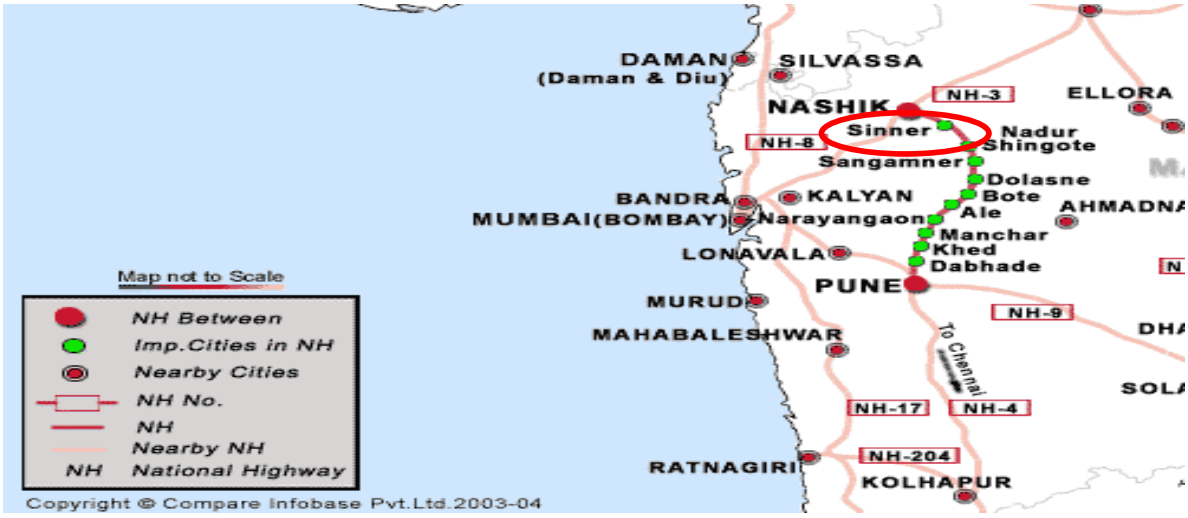
NASIK

BACKGROUND

INDIABULLS Power Ltd is setting up a coal based **Thermal Power Plant** at Sinnar- Special Economic Zone, Nasik district, Maharashtra. The project site is located on the State Highway 23, approximately 33 Km. from Nasik city. The nearest National Highway is NH 50.

Nearest Railway Station : Nasik Road at 35 Kms from site on Mumbai Howrah rail section of Western- Central Railway passing through Dadar, Kalyan, Igatpuri.

Nearest Highway : NH-50 (Nasik - Pune)



Nearest Airport : Mumbai 230 KM

CLIMATE

Nashik District is located between 18.33 degree and 20.53 degree North latitude and between 73.16 degree and 75.16 degree East Longitude at Northwest part of the Maharashtra state, at 565 meters above mean sea level. Though average rainfall of the District is between 2600 and 3000 mm. Most of the rainfall is received from June to September. The maximum temperature in summer is 42.5 degree centigrade and minimum temperature in winter is less than 5.0 degree centigrade. Relative humidity ranges from 43% to 62%.

JHABUA

INTROUCTION

JHABUA POWER LTD. is going to install 2X600MW Coal Based Thermal Power Plant in Seoni district, Madya Pradesh state, India. BHEL have been awarded BTG Package comprising of Design, Engineering, Manufacturing, procurement, Inspection, testing, Packing & forwarding, Transportation to site, Insurance, receipt at site, Unloading, Loading, storage of material, handling, Project management, Erection, Testing and Commissioning (Including MCE Insurance), and conducting Trial operation and Performance Guarantee tests of all the equipments / systems of 1st Unit and handing over the project within 37 months from zero date / 18.03.2010.

APPROACH TO SITE

The Site is located 40 KM away from the National Highway-7 between Nagpur- Jabalpur. The site can be approached from either Jabalpur or from Nagpur. From Jabalpur site can be approached via Dhuma (on National Highway) Kahni-Mehta on Major district Road and then up to Barela by another Blacktopped road. The other alternative is Jabalpur-Bargi-Panarzir-Barela. The site can also be approched from Nagpur end via Lakhnadoun (on National Highway) Kahni-Mehta both on state highway and the last leg via blacktopped road

LOCATION:

i.) Nearest Railway Station: Binaiki - 2 KM
ii.) Nearest Port: Paradip, Orissa (800 KM)
iii.) Nearest Airport: Jabalpur - 80 KM

Site Elevation :

550 meter above MSL

CLIMATIC CONDITIONS

1. i **Seismic data**

a. Seismic Intensity : As per IS:1893-2002, Part – I & As per IS:1893-2002 Part - IV
b. Zone : III
c. Importance Factor : 1.75
d. Zone Factor : 0.16
e.

2. Ambient Air Temperature

a. Maximum Dry Bulb temperature 39.7^0 C
b. Minimum Dry Bulb temperature 13.7^0 C

3. Relative Humidity

a. Maximum : 63%
b. Minimum : 19%

4. Rainfall

a. Maximum Recorded : 458
b. Average Annual Rainfall; : 984 mm
c. Period of Monsoon(Avg.) Showers : June-September

5. Wind data:

a. Basic wind speed : 47 m/s as per latest revision of IS:875 Part III
b. Wind Direction : North East Direction

6. Climatic Conditions : Hot / Arid

AVANTHA, RAIGARH

INTRODUCTION

KORBA WEST POWER COMPANY LTD, is going to install 1X600MW Coal Based Thermal Power Plant. BHEL have been awarded BTG Package comprising of Design, Engineering, Manufacturing & Supply, Inland Transportation, Insurance, Erection, Testing and Commissioning, Conducting Performance Guarantee Test of BTG Package, Station C&I along with associated Electricals and handing over of project within 42 months from zero date/ 01.05.2009.

The plant is located at a distance of 23 KM from Raigarh city of Chhattisgarh state.

APPROACH TO SITE

Location: Near Bade Bhandar Village, Dist-Raigarh (Chhattisgarh)
Longitude: $21^0$44'00'' to $21^0$44'42'' N**, Lattitude:** $83^0$16'30'' to $83^0$17'18'' E

Access by Road:
The site is 0.5 km from NH-216

Nearest Railway Station: Kirorimal Nagar - 21 Km
Nearest Town: Raigarh - 23 Km

Nearest Port: Paradip (400 Kms), Kolkata (500 Kms), Vishakapattanam (450 Kms),

Nearest Airport: Raipur-250 Km

7. Owner KORBA WEST POWER COMPANY LTD. (KWPCL)

8. Project Title 1X600 MW KWPCL Raigarh Project

9. Seismic data

f.	Seismic Intensity	As per IS:1893-2002
g.	Zone	II
h.	Importance Factor	1.5
i.	Basic Horizontal Seismic Co-efficient Factor	0.1

10. Ambient Air Temperature

a.	Maximum Dry Bulb temperature	47 ^{0}C
b.	Minimum Dry Bulb temperature	9 ^{0}C
c.	Design Ambient for Electrical Equipment	50 ^{0}C

11. Relative Humidity

a.	Maximum	86%
b.	Minimum	20%

12. Rainfall

a.	Maximum Recorded	952.7 mm (July-1961)
b.	Average Annual Rainfall;	1602 mm
c.	Period of Monsoon(Avg.) Showers	June-September
d.	Wind data: Basic wind speed	39 m/s as per latest revision

	Sikka
1.1	**INTROUCTION** Sikka Thermal Power Station is presently having two sets (units) of 120 MW units in operating condition. The plant owner M/s Gujarat State Electricity Corporation Limited (GSECL) has undertaken expansion of this power plant by installing two units of 250 MW each (name plate rating) in the same premises. Though both the new units are of 250 MW name plate rating, they are guaranteed to produce an output of 270 MW each. The Bidder shall acquaint himself by a visit to the site, if felt necessary, with the conditions prevailing at site before submission of the bid. The information given here in under is for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data/information as may be necessary shall have to be obtained /collected by the Bidder.
1.2	**LOCATION AND APPROACH** In Sikka, Jamnagar district, Latitude 22^{O} 26' N & Longitude 69^{O} 49' E. The site is surrounded by villages Mungai, Sikka, Gagva & Nanikkhavri of Jamnagar district of Gujarat state. **Access by Road:** It is connected to State Highway (SH-25) by a 5 km long road through Sikka village. **Access by Railways:** Jamnagar – Okha broad-gauge section is passing at a distance of 12 km form Sikka. **Nearest Airport**: Jamnagar **Nearest Seaport:** Okha & Navalakhinare located 140 Km & 130 Km respectively from the site.
1.3	**Other Salient Information:** **13.** Owner M/s GSECL **14.** Owner's Consultant M/s TCE, Bangalore **15.** Project Title 2x250 MW Sikka TPS Extension Units # 3 & 4 **16.** Location 12 km from Sikka, District – Jamnagar, Gujarat **17.** Nearest Railway Stn. Jamnagar
1.4	**CLIMATIC CONDITIONS** 1.Ambient Air Temperature a. Maximum 42 Deg. C b. Minimum 8 Deg. C 2. Relative Humidity c. Maximum 100% d. Minimum 21% 3.Rainfall e. Average annual 650 mm f. Maximum 900 mm g. Minimum 400 mm 4.Wind Data h. Basic wind speed at 10m height 50 m/sec i. Wind pressure As per IS: 875 Part III 5.Seismic Zone Zone IV as per IS: 1893-2002

BHARAT HEAVY ELECTRICALS LIMITED
(A GOVERNMENT OF INDIA UNDERTAKING)
POWER SECTOR - WESTERN REGION
345, KINGS WAY - NAGPUR 440 001

PROCEDURE FOR SUBMISSION OF SEALED TENDERS

THE BIDDER MUST SUBMIT THEIR TENDERS AS REQUIRED IN TWO PARTS IN SEPARATE SEALED COVERS PROMINENTLY SUPERSCRIBED AS PART-I TECHNICAL BID AND PART-II PRICE BID AND ALSO INDICATING ON EACH OF THE COVERS THE TENDER SPECIFICATION NUMBER AND DUE DATE AND TIME AS MENTIONED IN THE TENDER NOTICE.

PART-I (TECHNICAL BID) COVER-I

EXCEPTING RATE SCHEDULE, ALL OTHER SCHEDULES, DATA SHEETS AND DETAILS CALLED FOR IN THE SPECIFICATION SHALL BE ENCLOSED IN PART-I "TECHNICAL BID" ONLY.

PART-II (PRICE BID) COVER-II

ALL INDICATIONS OF PRICE SHALL BE GIVEN IN THIS PART-II "PRICE BID". **EMD SHALL NOT BE INCLUDED IN THIS COVER.**

THESE TWO SEPARATE COVERS-I AND II (PART-I AND PART-II) SHALL TOGETHER BE ENCLOSED IN A THIRD ENVELOPE (COVER-III) ALONGWITH REQUISITE EMD AS INDICATED EARLIER AND THIS SEALED COVER SHALL BE SUPERSCRIBED AND SUBMITTED TO ADDL. GEN MANAGER (PURCHASE) AT THE ABOVE MENTIONED ADDRESS ON OR BEFORE THE DUE DATE AS INDICATED.

THE QUALIFIED BIDDER WILL BE INTIMATED SEPARATELY ABOUT THE STATUS OF THEIR OFFER.

BIDDERS ARE REQUESTED TO MAKE SPECIFIC NOTE OF THE FOLLOWING CONDITIONS:

- CONTRACTOR SHOULD HAVE ADEQUATE RESOURCES INCLUDING MAJOR T&PS AT HIS DISPOSAL FOR THIS JOB.

- CONTRACTOR SHOULD HAVE SOUND FINANCIAL STABILITY.

- BIDDER SHOULD MEET QUALITY REQUIREMENT REGARDING WORKMANSHIP, DEPLOYMENT OF PERSONNEL, ERECTION TOOLS AND NECESSARY INSPECTION, MEASUREMENT & TESTING INSTRUMENTS.

- ALL INFORMATION AS CALLED FOR IN VARIOUS APPENDICES AND CLAUSES OF TENDER SPECIFICATION SHOULD BE FURNISHED IN COMPLETENESS. PLEASE REFER THE CHECKLIST.

- CLARIFICATION ON TENDER IF ANY, SHALL BE OBTAINED BY THE BIDDER BEFORE SUBMITTING THEIR OFFER.

- OFFERS MUST BE SUBMITTED WITHOUT ANY DEVIATION.

- OFFERS RECEIVED WITH ANY DEVIATION OR WITHOUT RELEVANT INFORMATION AS DESCRIBED ABOVE ARE LIABLE TO BE REJECTED. PRICE BIDS RECEIVED IN THE FORM OTHER THAN SPECIFIED IN PART-II (PRICE BID) ARE LIABLE TO BE REJECTED.

CHECK LIST

1	NAME OF THE BIDDER WITH ADDRESS		
2	NATURE OF THE FIRM	LIMITED / PARTNERSHIP / PROPRIETARY	
3	EMD DETAILS (Rs. 2.0 LAKHS BY DD ONLY OR ONE TIME EMD)		
4	VALIDITY OF OFFER (REQUIRED 6 MONTHS FROM DUE DATE)		
5	MOBILIZATION TIME (AS PER SECTION-11)		
6	WHETHER NO DEVIATION CERTIFICATE FURNISHED	YES	NO
7	BIDDER HAS VISITED THE PROJECT SITE AND ACQUAINTED WITH THE SITE CONDITIONS	YES	NO
8	DETAILS OF CONCURRENT JOBS ARE FURNISHED (AS PER APPENDIX-III)	YES	NO
9	HEAD QUARTER'S ORGANISATION IS FURNISHED	YES	NO
10	PROPOSED SITE ORGANISATION IS FURNISHED	YES	NO
11	FINANCIAL STATUS OF THE COMPANY IS FURNISHED	YES	NO
12	PROFIT & LOSS ACCOUNT FOR PRECEDING THREE YEARS IS FURNISHED	YES	NO
13	LATEST SOLVENCY CERTIFICATE FROM THE BANKER IS FURNISHED	YES	NO
14	LATEST INCOME TAX CLEARANCE CERTIFICATE OR COPY OF PAN CARD ACCOMPANIED BY 'IT RETURN' COPY IS FURNISHED	YES	NO
18	POWER OF ATTORNEY ENCLOSED IN FAVOUR OF PERSON MAKING OFFER.	YES	NO
19	DETAILS OF SIMILAR WORK DONE IN LAST SEVEN YEARS AS PER APPENDIX – II AND SUPPORTING DOUCMENTS FURNISHED.	YES	NO
21	BIDDER HAS FAMILIARIZED HIMSELF WITH ALL RELEVANT LOCAL LAWS & CONDITIONS.	YES	NO
22	WHETHER ALL THE PAGES OF THE TENDER DOCUMENTS ARE READ, UNDERSTOOD AND SIGNED	YES	NO

23	WHETHER THE FOLLOWING DETAILS PERTAINING TO YOUR BANK ACCOUNT DULY ENDORSED BY THE BANK HAVE BEEN FURNISHED {TO ENABLE BHEL RELEASE PAYMENTS THROUGH ELECTRONIC FUND TRANSFER (EFT/RTGS) AS SPECIFIED IN SECTION 12 } 1. Name of the Company 2. Name of Bank 3. Name of Bank Branch 4. City/Place 5. Account Number 6. Account type 7. IFSC code of the Bank Branch 8. MICR Code of the Bank Branch	YES	NO

NOTE : STRIKE OFF YES OR NO, AS APPLICABLE

DATE: SIGNATURE OF BIDDER

DECLARATION BY AUTHORIZED SIGNATORY OF CONTRACTOR

I, HEREBY CERTIFY THAT ALL THE INFORMATION AND DATA FURNISHED BY ME WITH REGARD TO THIS TENDER SPECIFICATION No. **BHE/PW/PUR/WR-SJ/OJ-197** ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. I HAVE GONE THROUGH THE SPECIFICATION, CONDITIONS AND STIPULATIONS IN DETAIL AND AGREE TO COMPLY WITH THE REQUIREMENTS AND INTENT OF THE SPECIFICATION. I FURTHER CERTIFY THAT I AM DULY AUTHORISED REPRESENTATIVE OF THE UNDERMENTIONED BIDDER AND A VALID **POWER OF ATTORNEY** TO THIS EFFECT IS ALSO ENCLOSED.

BIDDER'S NAME AND ADDRESS

AUTHORISED REPRESENTATIVE'S SIGNATURE WITH DATE:

CERTIFICATE OF NO DEVIATION

TENDER SPECIFICATION NO: - BHE/PW/PUR/WR-SJ/OJ-197

I/WE, M/s

……

HEREBY CERTIFY THAT IN OUR OFFER I/WE HAVE NEITHER SET ANY TERMS AND CONDITIONS NOR THERE ANY DEVIATION TAKEN FROM THE TENDER CONDITIONS EITHER TECHNICAL OR COMMERCIAL AND I/WE AGREE TO ALL THE TERMS AND CONDITIONS MENTIONED IN THE TENDER SPECIFICATION.

SIGNATURE OF THE BIDDER

DATE:

CERTIFICATE CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS

TENDER SPECIFICATION No. BHE/PW/PUR/ WR-SJ/OJ-197

We, M/s ……

Hereby declare and confirm that we have visited the project site(s) for which we have submitted our offer and acquired full knowledge and information about the site conditions.

We further confirm that the above information is true and correct and we shall not be eligible for any additional payment of any nature due to lack of knowledge or non-familiarization of site conditions.

BIDDER'S NAME AND ADDRESS:

SIGNATURE & OFFICIAL SEAL OF BIDDER'S
AUTHORISED SIGNATORY

PLACE:

DATE:

SECTION-3

OFFER OF THE CONTRACTOR

AGM (PURCHASE)
BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR - WESTERN REGION
SHREEMOHINI COMPLEX
345, KINGS WAY
NAGPUR - 440 001

DEAR SIR,

I/WE HEREBY OFFER TO CARRY OUT THE WORK DETAILED IN TENDER SPECIFICATION **No. BHE/PW/PUR/WR-SJ/OJ-197** ISSUED BY BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR-WESTERN REGION, NAGPUR, IN ACCORDANCE WITH THE TERMS AND CONDITIONS THEREOF.

I/WE HAVE CAREFULLY PERUSED THE FOLLOWING DOCUMENTS CONNECTED WITH THE ABOVE WORK AND AGREE TO ABIDE BY THE SAME.

1. INSTRUCTIONS TO BIDDERS
2. GENERAL CONDITIONS OF CONTRACT
3. SPECIAL CONDITIONS OF CONTRACT
4. OTHER SECTIONS, APPENDICES, SCHEDULES AND DRAWINGS.

I/WE HAVE DEPOSITED / FORWARDED HEREWITH THE EARNEST MONEY DEPOSIT FOR A SUM OF **RS.2,00,000/- (RUPEES TWO LAKHS ONLY)** AS STIPULATED VIDE CLAUSE NO 1.4 OF GENERAL CONDITIONS OF CONTRACT, DETAILS OF WHICH IS FUNISHED IN THE CHECK LIST, & WHICH SHALL BE REFUNDED SHOULD OUR OFFER NOT BE ACCEPTED. SHOULD OUR OFFER BE ACCEPTED, I/WE FURTHER AGREE TO DEPOSIT SUCH ADDITIONAL SUM WHICH ALONGWITH THE SUM OF **RS.2,00,000/- (RUPEES TWO LAKHS ONLY)** MENTIONED ABOVE, SHALL MAKE UP SECURITY DEPOSIT FOR THE WORK AS PROVIDED FOR IN THE TENDER SPECIFICATION WITHIN THE STIPULATED TIME AS MAY BE INDICATED BY BHEL, POWER SECTOR-WESTERN REGION, NAGPUR.

I/WE FURTHER AGREE TO EXECUTE ALL THE WORKS REFERRED TO IN THE SAID DOCUMENTS UPON THE TERMS AND CONDITIONS CONTAINED OR REFERRED TO THEREIN AND AS DETAILED IN THE APPENDICES ANNEXED THERETO.

PLACE: SIGNATURE OF BIDDER:
DATE : ADDRESS:

WITNESSES WITH THEIR ADDRESS

SIGNATURE	NAME	ADDRESS
1.		
2.		

NOTICE INVITING TENDER

Sealed tenders are invited in two bid system (viz. Part-I: Technical cum Commercial Bid and Part-II: Price Bid) from bidders meeting Qualifying Requirements (QR) as specified later in this NIT. Brief details of job and Tender Specification (T. S.) No. are as under.

Tender Specs. No. **BHE/PW/PUR/WR-SJ/OJ-197**

JOB: RATE CONTRACT FOR PROVIDING SERVICES ON TURNKEY BASIS FOR UNLOADING FROM TRAILER/CARRIER, LIFTING & SHIFTING AND PLACEMENT OF GENERATOR STATOR ON ITS FOUNDATION BY MEANS OF STRAND JACK METHOD AT VARIOUS BHEL-PSWR SITES

Sale and Web Page Hosting of T.S. documents: 22/01/2011 to 11/02/2011

- **Last Date and Time for Offer Submission: 14/02/2011* (latest by 15.00 Hrs)**
- **Opening of Technical Bids: 14/02/2011* (at 16:00 Hrs)**

*Please obtain latest information regarding these dates from the web page www.bhel.com (Tender Specification → View Corrigendums)

Earnest Money Deposit (EMD): Rs. 2 lakh by Demand Draft

- Tender Specification documents with complete details are hosted in web page (www.bhel.com). Bidders can directly download the same and use for submission of offer. Tender Document charges shall be paid to BHEL along with or before submission of Offer.
- Interested bidders may alternately collect hard copy of T.S. documents from this office on all working days within the sale period on payment of Tender Document charges.
- Tender Specification Document Charges: Rs. 2,000/- by DD (in favour of BHEL payable at Nagpur) or cash. Courier charges will be Rs. 500/- extra if T.S. documents are requested through courier.
- BHEL takes no responsibility for any delay/loss of documents or correspondences sent by courier/post.
- Bidders who have deposited One Time EMD of Rs. 2.00 Lakhs with BHEL:PSWR:Nagpur will be exempted from submission of EMD with these tenders.
- BHEL reserves the right to accept or reject any or all tenders without assigning any reasons whatsoever.
- BHEL will operate Purchase Preference Policy of the Government of India as applicable.
- Dates of Price Bid opening will be intimated to bidders later.
- All corrigenda, addenda, amendments and clarifications to Tender Specifications will be hosted in this web page (**www.bhel.com** → Tender Notifications → View Corrigendum) and not in the newspaper. Bidders shall keep themselves updated with all such amendments.
- BHEL reserves the right to reject any tender on the basis of unsatisfactory performance of the bidder in any ongoing job or any similar job in the last seven years or for furnishing false information/declaration in the offer

NOTICE INVITING TENDER

QUALIFYING REQUIREMENTS (QR)

Bidder must fulfill the following Qualifying Requirements concurrently for BHEL to accept the offer on Techno-Commercial ground.

a) Bidder must have, in last seven years as on 31.12.2010, successfully executed Lifting, Shifting & Placement of any single consignment/equipment, weighing **100MT or higher** by means of Strand Jack Method in a Power Plant or in any Industry

AND

b) Bidders must have achieved an average annual financial turnover (Audited) of **Rs 400 Lakhs or more** over last three Financial Years (FY) ending 31/03/2010 .

AND

c) Net worth of the Bidder based on the latest Audited Accounts as furnished by Bidder in case of 'b' above should be higher than 50% of the Paid-up Capital in case of Companies.

AND

d) Bidder must have earned cash profit in any one of the three Financial Years as applicable in case of 'b' above based on latest Audited Accounts

Explanatory Notes for QR 'a':

i) The words 'provided services' mean the bidder should have achieved the criteria specified in the QR even if the total contract has not been completed or closed

GENERAL

1) Timing of sale of Documents: Tender Specification documents will be issued from BHEL PSWR Nagpur office from 10:00 AM to 4:00 PM on all working days within the period specified in the NIT.

2) Holidays:
Sale of Tender Documents shall not take place on National Holidays, holidays declared by the Central or State Governments, Sundays, second and last Saturdays and holidays of BHEL PSWR Nagpur HQ.

3) Seeking Clarifications on Tender Specification:
Clarifications on the Tender Specifications, if any, may be sought by the bidders so as to reach this office at least **three days before the Due Date** for submission.

4) Fulfillment of Qualifying Requirements:
A bidder must satisfy **all the Qualifying Requirements** stipulated under 'a', 'b' etc of this tender concurrently in order to get qualified.

5) Customer Approval: In case customer approval is required for this package, bidder's offer will be accepted subject to approval of bidder by customer.

NOTICE INVITING TENDER

6) Supporting Documents:
Bidders shall submit documents in support of possessing "Qualifying Requirements" as under duly self-certified and stamped by the authorized signatory.

- List of jobs done with Name of the Project, Owner of Project, Name of Customer, Work Order Ref. No. & Date, Brief Details of Job, Executed Value, Date of Start, Date of Completion.
- Photocopies of Work Orders issued by the Customer containing details of Bill of Quantities/Schedule of Rates.
- Photocopies of Completion Certificate issued by Customer or Owner of Project.
- Photocopies of audited Profit and Loss accounts accompanied by relevant schedules for turnover figures.

7) Earnest Money Deposit (EMD): Refundable, Non-interest bearing EMD for each tender is indicated against each job earlier here. Bidders may also opt to deposit "One Time EMD" of Rs. 2.0 lacs and thus be exempted henceforth from payment of EMD with each Erection and Commissioning tender of BHEL-PSWR Nagpur. EMD shall be paid ONLY by **Account Payee Demand Draft** in favour of "Bharat Heavy Electricals Limited" payable at Nagpur.

Those bidders who have already deposited 'One Time EMD' earlier need not submit EMD with the present tenders. Please indicate the payment details of the 'One Time EMD' in each tender.

8) Tender Document Cost and Courier Charges:
Tender document charges @ Rs 2000/- per set and courier charges @ Rs 500/- per set shall be made by Account Payee Demand draft in favour of "Bharat Heavy Electricals limited" payable at Nagpur or in cash payable at cash counter of this Office. Courier charges shall be paid in case bidders requests for dispatch of Tender specifications by courier. In case bidder downloads the Tender specifications etc from web page, they shall remit the Tender document charges (Rs 2000/-) positively along with or before submission of offer.

9) **Liquidated Damages/Penalty:** BHEL will impose Liquidated Damages and Penalty as per suitable clauses in the respective Tender Specifications on account of delay, violation of contract conditions and non-performance attributable to the contractor.

10) LATE TENDER: Tender received after the specified date and time of submission shall not be considered in any circumstances.

Addl.General Manager (Purchase)

NOTICE INVITING TENDER

IMPORTANT INFORMATION:

i **BHEL PSWR proposes to hire agency on rate contract basis for providing services on turnkey basis for unloading from trailer/carrier, lifting & shifting and placement of generator stator on its foundation by means of strand & jack method at various PSWR sites across states of Madhya Pradesh, Chhattisgarh, Maharastra, Gujarat, Goa.**

ii **At present these services are required at 10x270 MW Amravati Phase I & II, 10x270 MW Nasik Phase I & II, 1X600 MW KWPCL RAIGARH (AVANTHA BHANDAR), 1X600 MW JHABUA, 2X250 MW SIKKA BHEL-PSWR SITES.**

iii **In case the services are required at any other site, the same shall be provided at the quoted and accepted rates**

iv **Schedule dates of work mentioned in the 4.1.1 table is tentative and there is possibility of change in date of start of work.**

v **Lump sum price is to be quoted in the rate schedule attached separately for each category (i.e. 230MT & 326MT). Evaluation in each category shall be done separately. Bidders to note that weights given above are approximate.**

vi **70% work shall be awarded to L-1 party in case of 230MT category (Sl.no. 1 to 22 of 4.1.1). Remaining 30% work shall be distributed to other parties who will match the L-1 Price. Towards this bidders in order of their competitiveness (i.e L-2 , L-3 and so) on shall be given an opportunity to match the awarded rates and the other parties finalised; however 100% work shall be awarded for 326MT category on lowest quoted price.**

vii **The rates quoted shall remain firm for both the categories (i.e. 230MT & 326MT) for a period of 24 months from Price Opening Date.**

viii **In case of extension beyond contract period, rates shall be increased by 10% and valid for one year.**

ix **BHEL reserves all rights to operate the rate contract at its discretion.**

4.1.1 SCOPE OF WORK

The intent of this specification is to provide on turn-key basis complete design, development of scheme, works & services of fabrication at shop and site as may be required, erection/ installation/ rigging of all temporary structures along with all lifting & shifting equipments (e.g. hydraulic & telescopic lifting & shifting system, strand jacks, power packs with centralised control system, modular structural towers , lifting beams, high capacity wire rope slings, steel plates rolled section for on-site fabrication etc. as may be necessary), all Tools & Plants (e.g. cranes for site handling/ erection /dismantling, welding machines, gas cutting sets, slings, D-shackles, wire ropes, etc), and all manpower requirement i.e. technical and supervisory, skilled, semiskilled, & unskilled manpower for handling, unloading, lifting, shifting, lowering and placement of Generator Stator on its specified foundations included but not limited to following:

a. Design of the Jacking System
b. Supply of Jacking System and its accessories
c. All necessary consumables, excluding fuel and or LT Power for the equipments.
d. Fuel for the Power Packs
e. Provision of all necessary supervision to oversee lifting, operating & dismantling the bidder's equipments.
f. Site accommodation & transportation for Bidders and his crew
g. Communication system for the jacking operations.
h. Manufacturers test certificates for each coil of strand
i. Procedure & Write Up for lifting of Generator Stator from start to Finish.
j. Adequate third party insurance cover
k. Workmen's compensation for bidder and his workmen.
l. Insurance for Bidder's equipments.

4.1.2 Details of Equipments to be lifted:-

Sl No.	Description	Approx. Weight	Aprrox. Dimensions	Approx. CL Elevation of Stator	Likely Arrival Schedule at site
Amravati Phase I (5x 270 MW)					
01	Generator Stator Unit#1	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Dec - 11
02	Generator Stator Unit#2	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Feb - 12
03	Generator Stator Unit#3	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Apr - 12
04	Generator Stator Unit#4	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	June - 12
05	Generator Stator Unit#5	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	July - 12
Nasik Phase I (5x 270 MW)					
06	Generator Stator Unit#1	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Feb - 12
07	Generator Stator Unit#2	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Mar - 12
08	Generator Stator Unit#3	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	May - 12
09	Generator Stator Unit#4	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	July - 12
10	Generator Stator Unit#5	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Sept - 12
Amravati Phase II (5x 270 MW)					
11	Generator Stator Unit#6	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Nov-12
12	Generator Stator Unit#7	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Jan-13
13	Generator Stator Unit#8	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Mar-13
14	Generator Stator Unit#9	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	May-13
15	Generator Stator Unit#10	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Jun-13
Nasik Phase II (5x 270 MW)					
16	Generator Stator Unit#6	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Jan-13

17	Generator Stator Unit#7	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Mar-13
18	Generator Stator Unit#8	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	May-13
19	Generator Stator Unit#9	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Jul-13
20	Generator Stator Unit#10	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Sep-13
Sikka (2x250 MW)					
21	Generator Stator Unit# 3	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Shall be intimated later
22	Generator Stator Unit# 4	230 MT	7.87m(L)X4.00m(W)X4.70m(H)	16.4 m	Shall be intimated later
Jhabua (1x 600 MW)					
23	Generator Stator Unit#1	326 MT	9.86m(L)X4.44m(W)X3.87m(H)	18 m	June -12
Avantha, Bhandar (1x 600 MW)					
24	Generator Stator Unit#1	326 MT	9.86m(L)X4.44m(W)X3.87m(H)	18 m	June -12

4.2.1 Civil works

(a) The civil foundations for installation of lifting and shifting arrangements of Strand & Jack system shall be provided by BHEL but detailed civil design and Drawings for the same and the embedment & inserts including foundation bolts and fasteners etc for these foundations shall be provided by the contractor. Details of foundation & co-ordinates of the Lifting and Shifting arrangement shall be provided by the bidder along with the offer (The location of foundation for Strand Jack is indicated in the attached drawings).

(b) Contractor shall make arrangement for providing inserts on the Generator Stator foundation by external arrangement. A separate price needs not to be quoted for the same.

(c) All other requirement of foundation and other civil works are to be arranged by the contractor on his own within the quoted rates.

(d) GA and Layout drawings of various equipments of the Power Plant are provided as part of tender document for information of bidders.

4.2.2. UNLOADING, LIFTING, SHIFTING & PLACEMENT OF GENERATOR STATOR ON ITS FOUNDATION:

(a) The Generator Stator has to be unloaded directly from the transport carrier & placed on specified foundation. In case packer/ distance piece are required to be provided between the Generator Stator and the foundation, these will be made available by BHEL to the contractor.

(b) While placing the Generator Stator on its foundation this has to be suitably manuovered to ensure placement in rough alignment with axes and elevation.

(c) The Generator Stator is to be lifted by using lugs/ lifting facility provided specifically for the purpose of lifting /handling on the equipments. No other mode of tying/jacking over the body of Generator Stator is possible/ allowed for lifting/ shifting/lowering purposes.

(d) In any case dragging of Generator Stator will not be allowed.

4.2.3 Providing temporary structures, access platforms, ladders etc. as required including necessary steels, others materials, consumables, fabrication and erection there of and dismantling after completion of work is part of contractor's scope.

4.2.4 Contractor shall make arrangements for alternate power source e.g. DG set of adequate capacity so as to ensure un-interrupted operation even in the eventuality of interruptions in customer supplied power. Contractor should also arrange for adequate stock of spares for the entire system so as to ensure continuation of work with least disruption in case of any failures/ faults encountered during operation. Such disruptions/ hold ups should not pose any danger to the safety of equipments being handled.

4.2.5 Before deployment on the job, contractor has to furnish the load test certificates, including overload test certificates as applicable, of all the lifting equipment, wire rope (strand), and material test certificate for the steel being used in the system. Contractor should also submit certificate towards Design adequacy and other safety clearances as applicable.

4.2.6 After completion of work, contractor shall dismantle the total installation (excluding foundations made for this purpose as specified in foregoing para) and clear the premises of all debris scrap etc and take back all the equipments.

4.2.7 Contractor shall arrange to unload the Generator Stator within the reasonable time period after placement of vehicle at the unloading point & release the vehicle so as to avoid undue detention. Charges towards any such undue detention attributable to contractor shall be to his account.

4.2.8 Contractor shall be solely responsible for watch and ward of his equipment, including while in storage as the case may be.

5.0 Obligations of the Contractor (Tools and Tackles, Consumables, Infrastructures, etc.)

5.1 Tools and Plant

5.1.1 For Unloading/Loading/Assembly/Dismantling/Fabrication/Erection and Handling of the Equipment/T&Ps/Structures mobilized by the contractors as per this work requirement at job site, suitable cranes along with Fuel and Operator are to be arranged by Contractor.

5.1.2 The contractor shall provide all the necessary steel scaffolding, working platforms for working at elevations, temporary structures etc; required for this work.

5.1.3 In the event of contractor failing to arrange the required tools and plants and testing equipments and non-availability of the same owing to breakdown, or otherwise, BHEL will take appropriate action at contractor's risk and cost.

5.2 Consumables

The contractor shall provide all consumables required for carrying out the work covered under this scope of work.

5.3 Site office and stores

Contractor shall make his own arrangements for site office cum stores. Only open space will be provided by BHEL free of cost for contractor's office & storage area on a temporary basis.

5.4 Lighting

5.4.1 The contractor at his cost should arrange for lighting in the work areas. This arrangement is besides the local lighting that may be required for the execution of the work, which shall also be arranged by the Contractor.

5.4.2 All temporary wiring must comply with regulations and will be subjected to engineer's inspection and approval before connecting to supply point.

5.5 LABOUR & STAFF ACCOMODATION AND TRANSPORTATION

Customer/BHEL will not provide any facility with regard to accommodation and transport of contractor's labour and staff. Contractor shall make his own arrangements in this regard and comply with all requirements.

5.6 Taxes, Duties, Levies

Refer to Clause 2.8.4 of General Conditions of Contract. Notwithstanding anything contained therein, the following provisions shall be applicable for this contract.

5.6.1
The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.
However, provisions regarding Service Tax and Value Added Tax (VAT) on output services and goods shall be as per following clauses.

5.6.2 Service Tax & Cess on Service Tax

Service Tax and Cess on Service Tax as applicable on output Services are excluded from contractor's scope; therefore contractor's price/rates shall be **exclusive** of Service Tax and Cess on Output Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from BHEL and deposit the same with the concerned tax authorities, such applicable amount will be paid by BHEL.

Contractor shall submit to BHEL documentary evidence of Service Tax registration certificate specifying name of services covered under this contract. **Contractor shall submit serially numbered Service Tax and Cess Invoice, signed by him or a person authorized by him in respect of taxable service provided, and shall contain the following, namely,**

I. **The name, address and the registration number of the contractor,**
II. **The name and address of the party receiving taxable service,**
III. **Description, classification and value of taxable service provided and,**
IV. **The service tax payable thereon.**

All the four conditions shall be fulfilled in the invoice before release of service tax payment.
Contractor shall obtain prior written consent from BHEL before billing the amount towards such taxes.

With introduction of Cenvat Credit Rules 2004, which came into force w.e.f. 10.09.2004, Excise Duty paid on Input Goods including Capital Goods and Service Tax paid on Input Services that are used for providing the output services can be taken credit of against the Service Tax payable on output services. However BHEL may opt for availing the abatement provision in which case cenvat credit may not be available on input duty.

5.6.3 VAT (Sales Tax /WCT)

As regards Value Added Tax (VAT) on transfer of property in goods involved in Works Contract (previously known as Works Contract Tax) applicable as per local laws, the price quoted by the contractor shall be **exclusive** of the same. Where such taxes are required to be paid by the contractor, this will be reimbursed on production of proof of payment made to the authorities by the Contractor. In any case the Contractor shall register himself with the respective Sales Tax authorities of the state and submit proof of such registration to BHEL along with the first RA bill. The contractor has to take all necessary steps to **minimize tax on input goods** by purchasing the materials from any registered dealer of the concerned state only. In case contractor opts for composition, it will be with the prior express consent of BHEL. Deduction of tax at source shall be made as per the provisions of law unless otherwise found exempted. In case tax is deducted at source as per the provisions of law, this is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made unless specifically agreed to.

5.6.4 Modalities of Tax Incidence on BHEL

Wherever the relevant tax laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL will have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.

5.6.5 New Taxes/Levies

In case the Government imposes any new levy/tax on the output service/ goods/work after award of the contract, the same shall be reimbursed by BHEL at actual.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same **before opening of Price Bid**. Claim for any such impact after opening the Price Bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price

Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

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Wherever the relevant tax laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL will have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by

BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.

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In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same **before opening of Price Bid**. Claim for any such impact after opening the Price Bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

5.7 BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998

In case any portion of work involves execution through building or construction workers, then compliance to the above titled Acts shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances it may be ensured as under:-

i. It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a licence to the Competent Authority under the BOCW Act and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of licence / permission to BHEL within a period of one month from the date of award of contract.

ii. It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these act and rules including that of payment / deposit of 1% cess on the extant of work involving building or construction workers engaged by the contractor within a period of one month from the receipt of payment.

iii. It shall be the responsibility of the sub-contractor to furnish the receipts / challans towards deposit of the cess together with the number, name and other details of beneficiaries (building workers) engaged by the sub-contractor during the preceding month.

iv. It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.

SPECIAL CONDITIONS OF CONTRACT

SECTION-6

Contractor's Obligation in regard to Employment of Supervisory Staff and Workmen

6.1 SUPERVISORS AND LABOURER

Contractor shall deploy in adequate strength labour, technicians and engineers/ supervisors for this work.

6.2

It is the responsibility of the contractor to engage his workmen in shifts and or on overtime basis for achieving the target set by BHEL. This target may be set to suit BHEL's commitments to its customer or to advance date of completion of events or due to other reasons. The decision of BHEL in regard to setting the target will be final and binding on the contractor.

6.3

Contractor shall employ only qualified and experienced engineers/ supervisors for this job. They shall have professional approach in executing the work having adequate knowledge and experience.

6.4

Contractor shall obtain necessary work permits from BHEL/ customer prior to taking up any work on the system. He shall arrange for display of due and necessary caution notices/ boards etc.

6.5

The contractor shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instructions that may endanger safety of men, equipment, material and environment in his scope of work or another contractors or agencies. Cost of damage, if any, to life and property arising out of such violation of statutory regulations shall be borne by the contractor.

6.6 **Watch and Ward**

Contractor shall arrange and provide watch and ward round the clock for the materials in his custody.

6.7

Contractor shall implement local labour laws, maintain necessary records and co-ordinate with the local labour authorities on all matters of labour and industrial relations.

6.8

The contractor shall comply with the applicable law, rules and regulation etc; with regard to employment of labour. He shall obtain labour license.

The scope includes getting the licences and approvals from the statutory authorities, arranging for inspection of electrical inspector periodically as per BHEL engineer's instructions, submitting documents etc. and following up the matter with them as and when necessary for the work involved in this scope. All expenses, fees, levies etc have to be borne by the contractor.

7.0 OBLIGATIONS OF BHEL

7.1 FACILITIES PROVIDED BY BHEL

a. Load information for the design of Jacking system as per attached drawings.

b. Suitable access to the work site.

c. Storage area for equipment

d. Use of telephone and fax for project related business only.

e. Site lighting

f. Electric Power 220 / 415 V supply

g. Drawings of the item to be lifted in detail

7.1.1 CONSTRUCTION POWER & WATER

Construction power (three phase, 415v / 440v, 3-phase, 50 hz) will be provided free of charge at one point near the site approximately 500 meter from erection site.

All cabling and electrical installations shall comply in all respects with the appropriate statutory requirements.

BHEL shall provide water for construction purpose if required, free of cost at one point.

7.1.4 TOOLS AND PALNTS

BHEL will provide EOT Crane, if available for installation of Bidder's equipment in TG Hall.

8.0 INSPECTION/QUALITY ASSURANCE/QUALITY CONTROL/ STATUTORY INSPECTION

8.1 Various inspection/quality control/quality assurance procedures/methods at various stages of erection and commissioning will be as per BHEL/customer quality control procedure/codes and other statutory provisions and as per BHEL engineer's instructions.

8.2 Preparation of quality assurance log sheets and protocols with customer/ consultants/statutory authority, welding logs, NDE records, testing & calibration records and other quality control and quality assurance documentation as per BHEL engineer's instructions, is within the scope of work/specification. These records shall be submitted to BHEL/customer for approval from time to time.

The protocols between contractor and customer/ BHEL shall be made prior to installation for correctness of foundations, materials, procedures, at each stage of installation, generally as per the requirement of customer/ BHEL. This is necessary to ensure elimination of errors or keeping them within tolerable limits and to avoid accumulation and multiplication of errors.

8.3 A daily log book should be maintained by every supervisor/engineer of contractor on the job in duplicate (one for BHEL and one for contractor) for detailing and incorporating alignment/clearance / centering / leveling readings and inspection details of various equipments etc.

High pressure welding details like serial number of weld joints, welders name, date of welding, details of repair, heat treatment etc. will be documented in welding log as per BHEL Engineer's instructions.

Record of radiography containing details like serial number of weld joints, date of radiography, repairs, if any, re-shots etc shall also be maintained as per BHEL Engineer's instructions.

Record of heat treatments performed shall be maintained as prescribed by BHEL.

8.4 The performance of welders will be reviewed from time to time as per the BHEL standards. Welders' performance record shall be furnished periodically furnished for scrutiny of BHEL's Engineer. Corrective action as informed by BHEL shall be taken in respect of those welders not conforming to these standards. This may include removal/ discontinuance of concerned welder(s). Contractor shall arrange for the alternate welders immediately.

8.5 All the welders shall carry identity cards as per the proforma prescribed by BHEL/Customer/Consultant. Only welders duly authorized by BHEL/customer/consultant shall be engaged on the work.

8.6 Contractor shall provide all the measuring monitoring devices (MMDs) required for completion of the work satisfactorily. These MMDs shall be of brand, quality and accuracy specified by BHEL Engineer and should have necessary calibration and other certificates as per the requirement of BHEL Engineer. Decision of BHEL Engineer regarding acceptance or otherwise of the measuring instruments/gauges/tools for the work under this specification, is final and binding on the contractor. The indicative list of MMDs required for this work and to be made available by the contractor is given in

relevant appendix. The list will be reviewed by BHEL and the contractor shall meet any augmentation needed wherever required.

8.7 It is the responsibility of the contractor to prove the accuracy of the testing/measuring/calibrating equipments brought by him based on the periodicity of calibration as called for in the BHEL's quality assurance standards/BHEL Engineer's instructions.

8.8 Any re-laying or re-termination of cables/re-erection of instruments/ recalibration of instruments etc. required due to contractor's mistake or design requirement and found at any stage inspection, shall be carried out by the contractor at no extra cost.

8.9 BHEL, Power Sector – Western Region (PSWR) has already been accredited with ISO 9002 certification and as such this work is subject to various audits to meet ISO 9002 requirements. One particular aspect which needs special mention is about arrangement of calibration of instruments by the contractor. Contractor shall ensure deployment of reliable and calibrated MMDs (Instrument Measuring and Test Equipment). The MMDS shall have test / calibration certificates from authorised / Government approved / Accredited agencies traceable to National / International Standards. Re-testing / re-calibration shall also be arranged at regular intervals during the period of use as advised by BHEL Engineer within the contract price. The contractor will also have alternate arrangements for such MMDs so that work does not suffer when the particular equipment / instrument is sent for calibration. Also if any MMDs not found fit for use, BHEL shall have the right to stop the use of such item and instruct the contractor to deploy proper item and recall ie repeat the readings taken by that instrument, failing which BHEL may deploy MMD and retake the readings at Contractor's cost.

8.10 Re-work necessitated on account of use of invalid MMDs shall be entirely to the contractor's account. He shall be responsible to take all corrective actions, including resource augmentation if any, as specified by BHEL to make-up for the loss of time.

8.11 In the courses of erection, it may become necessary to carry repeated checks of the work with instruments recently calibrated, re-calibrated. BHEL may counter/ finally check the measurements with their own MMDs. Contractor shall render all assistance in conduct of such counter/final measurements.

8.12 Vibration indicators / vibration recorders / vibration analysers will be provided by BHEL for checking and analysing vibration levels of rotating equipments with necessary operators. Contractor shall provide necessary labour for carrying out such tests.

8.13 Total Quality is the watchword of the work and Contractor shall strive to achieve the Quality Standards, procedures laid down by BHEL. He shall follow all the instructions as per BHEL drawings and Quality Standards. Contractor shall provide the services of Quality Assurance Engineer.

8.14 Stage Inspection By FES/QA Engineers

Apart from day-to-day inspection by BHEL Engineers stationed at Site and Customer's Engineers, stage inspection of equipments under erection and commissioning at various stages shall also be conducted by teams of Engineers from Field Engineering Services of BHEL's Manufacturing Units, Quality Assurance teams from field Quality Assurance, Unit/Factory Quality Assurance and Commissioning Engineers from Technical Services etc. Contractor shall arrange all labour, tools and tackles etc for such stage inspections free of cost.

8.15 Any modifications suggested by BHEL FES and QA Engineers' team shall be carried out. Claims of contractor, if any, shall be dealt as per Section 13, and provided such modifications have not arisen for reasons attributable to the contractor.

Statutory Inspection of Work

8.16 The work to be executed under these specifications has to be offered for inspection, at appropriate stages of work completion, to various statutory authorities for compliance with applicable regulations.

The work related statutory inspections, though not limited to, are as under:

1) Inspectorate of steam boilers and smoke nuisance

2) Factory Inspector, Labour Commissioner, Electrical Inspector PF Commissioner and other authoritiy connected to this project work

The scope includes getting the approvals from the statutory authorities, which includes arranging for inspection visits of statutory authority periodically as per BHELI Engineer's instructions, arranging materials for ground inspection, taking rub outs for the pressure parts to be offered for inspection, submitting co-related inspection reports, documents, radiographs etc and following up the matter with them. Contractor shall also make all arrangements for offering the Products / Systems for inspection at location, as applicable, to the concerned authority.

8.17 Contractor should be qualified to execute pressure parts & piping work coming under the purview of IBR, for which he should register himself with CIB of state concerned. contractor also should be aware of the latest IBR regulations and Electricity Act, including the amendments thereof.

8.18 All fees connected with the contractors for testing his welders / men / workers and testing, inspection, calibrating of his instruments and equipments, shall be paid by the contractor. It shall be contractor's responsibility to obtain approval of Statutory Authorities, wherever applicable, for the conducting of any work which comes under the purview of these authorities.

8.19 Other fees like fees for periodic visits, hydraulic test fees, light up inspection fees etc. shall be borne by the contractor.

8.20 Payment of Registration fees for Boiler is excluded from the scope.

8.21 BHEL shall pay the ground inspection fees of Boiler Inspectorate. All other arrangements for site visits periodically by Boiler Inspector to site, for obtaining Inspection certificate etc, will have to be made by contractor.

8.22 The quality management system of BHEL, Power Sector – Western Region (PSWR) has already been certified and accredited under ISO 9002 standards in this regard. The basic philosophy of the quality management system is to define the organizational responsibility, work as per documented procedures, verify the output with respect to acceptance norms, identify the non-conforming product/ procedure and take corrective action for removal of non-conformance specifying the steps for avoiding recurrence of such non-conformities, & maintain the relevant quality records. The non-conformities are to be identified through the conduct of periodical audit of implementation of quality systems at various locations/stages of work. Suppliers/vendors of various products/services contributing in the work are also considered as part of the quality management system. .as such the contractor is expected not only to conform to

the quality management system of BHEL but also it is desirable that they themselves are accredited under any quality management system standard.

Field Quality Assurance

8.23 Contractor shall carry out all activities conforming to the approved Field Quality Plan (FQP) as revised from time to time. Total quality shall be the watchword of the work and contractor shall strive to achieve the quality standards, procedures laid down by BHEL. He shall follow all the instructions as per BHEL drawings and quality standards. Contractor shall provide the services of quality assurance engineer as per the relevant clauses.

SPECIAL CONDITIONS OF CONTRACT

SECTION-9

Safety, Occupational Health and Environmental Management

BHEL PSWR has been certified for Environmental Management under ISO 14001:1996 standard and Occupational Health & Safety under OHSAS 18001 by DNV. In order to comply with the above standards, it shall be the endeavour of BHEL and all its subcontractors to meet and implement the requirements by following the guidelines issued under Environmental, Occupational Health and Safety Management (EHS) manual a copy of which will be available with the BHEL Site-in-charge.

Contractor shall also enter into a "Memorandum of Understanding" as given in clause 9.9 in case of award of contract.

9.0 Responsibility of the Contractor in Respect of Safety of Men, Equipment, Material and Environment.

9.1 The Contractor shall:

9.1.1

Abide by the Safety Regulations applicable for the Site/Project and in particular as mentioned in the booklet "Safe Work Practices" issued by BHEL. Contractors are also to ensure that their employees and workmen use safety equipments as stipulated in the Factories Act (Latest Revision) during the execution of the work. Failure to use safety equipment as required by BHEL Engineer will be a sufficient reason for issuance of memo, which shall become part of Safety evaluation of the contractor at the end of the Project. Also all site work may be suspended if it is found that the workmen are employing unsafe working practice and all the costs/losses incurred due to suspension of work shall be borne by contractor. A comprehensive list of National Standards from which the contractor can draw references for complying with various requirements under this section is given under 9.10

9.1.2

Hold BHEL harmless and indemnified from and against all claims, cost and charges under Workmen's Compensation Act 1923 and 1933 and any amendment thereof and the contractor shall be solely responsible for the same.

9.1.3

Abide by the Procedure governing entry/exit of the contractor's personnel within the Customer/Client premises. All the contractors employees shall be permitted to enter only on displaying of authorized Photo passes or any other documents as authorized by the Customer/Client.

9.1.4

Be fully responsible for the identity, conduct and integrity of the personnel/workers engaged by them for carrying out the contract work and ensure that none of them are ever engaged in any anti national activity

9.1.5

Prepare a signboard giving the following information and display it near work site:

i) Name of Contractor
ii) Name of Contractor Site-in-charge & Telephone number
iii) Job Description in short
iv) Date of start of job
v) Date of expected completion
vi) Name of BHEL Site-in-charge.

9.1.6

Abide by the rules and regulations existing during the contract period as applicable for the contractors at the Project premises.

9.1.7
Observe the timings of work as advised by BHEL Engineer-in-charge for carrying out the contract work.

9.2 SPECIAL CONDITIONS

9.2.1 Safety

9.2.1.1 Safety Plan

Before commencing the work, contractor shall submit a "safety plan" to the authorized BHEL official. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety to men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified hereunder.

The contractor shall submit "safety plan" before start of work. During negotiations, before placing of work order and during execution of the contract, BHEL shall have right to review and suggest modifications in the safety plan. Contractor shall abide by BHEL's decision in this respect.

9.2.1.2
The contractor shall take all necessary safety precautions and arrange for appropriate appliances and/or as per direction of BHEL or it's authorized person to prevent loss of human lives, injuries to men engaged and damage to property and environment.

9.2.1.3
The contractor shall provide to his work force and also ensure the use of Personnel Protection Equipment (PPE) as found necessary and/or as directed and advised by BHEL officials without which permission is liable to be denied.

- Safety helmets conforming to IS 2925/1984 (1990)
- Safety belts conforming to IS 3521/1989
- Safety shoes conforming to IS 1989 part-II /1986(1992)
- Eye and face protection devices conforming to IS 2573/1986(1991), IS 6994 (1973), part-I (1991), IS 8807/1978 (1991), IS 8519/1977(1991).
- Other job specific PPEs of standard ISI make as may be prescribed

9.2.1.4
All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, cages, safety nets, ladders, equipment, etc used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item found to be unsafe.

9.2.1.5
All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carryout all types of electrical works. All electrical appliances including portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed.

9.2.1.6
The contractor shall not use any hand lamp energized by electric power with supply voltage of more than 24 volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 volts.

9.2.1.7
The contractor shall adopt all fire safety measures as per relevant Indian Standards

9.2.1.8

Where it becomes necessary to provide and/or store petroleum products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and/or storage in accordance with the rules and regulations laid down by the relevant government acts, such as petroleum act, explosives act, petroleum and carbides of calcium manual of the chief controller of explosives, Government of India etc. The contractor in all such matters shall also take prior approval of the authorized BHEL official at the site.

9.2.1.9
Proper means of access must be used e.g. ladders, scaffolds, platforms etc. No makeshift access such as oil drums or pallets shall be used. Design of these will be in accordance with relevant standards and certified by competent persons before use.

9.2.1.10
Temporary arrangements made at Site for lifting , platforms, approach access etc should be properly designed and approved before being put to use.

9.2.1.11
All excavations and openings must be securely and adequately fenced/barricaded and warning signs erected when considered necessary as per relevant code of practice.

9.2.1.12
No persons shall remove guardrails, covers or protective devices unless authorized by a responsible supervisor and alternative precautions have been taken

9.2.1.13
Access ways, means of escape and fire exits shall be clearly marked, kept clear and unobstructed at all times

9.2.1.14
Only authorized persons holding relevant license will drive and operate site plant and equipments e.g. cranes, dumpers, excavators, transport vehicles etc

9.2.1.15
Only authorized personnel are allowed to repair, commission electrical equipments.

9.2.1.16
Gas Cylinders shall be handled and stored as per Gas Cylinders Rules and relevant safe working practices

9.2.1.17
All wastes generated at Site shall be segregated and collected in a designated place so as to prevent spillage/contamination/scattering at Site, until the waste is lifted for disposal to designated disposal area as advised by BHEL official.

9.2.1.18
The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working when natural day light is not adequate for clear visibility.

9.2.1.19
The contractor shall train adequate number of workers/supervisors for administering “FIRST AID”. List of competent first aid administers should be prominently displayed.

9.2.1.20
The contractor shall display at strategic places and in adequate numbers the following in fluorescent markings

- Emergency telephone numbers
- Exit, Walkways
- Safe working load charts for wire ropes, slings, D shackles etc
- Warning signs

9.2.1.21
The contractor shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instructions that may endanger safety of men, equipment, material and environment in his scope of work or other contractors or agencies. Cost of damage, if any, to life and property arising out of such violation of statutory regulations and BHEL instructions shall be borne by the contractor.

9.2.1.22
In case of a fatal or disabling injury/accident to any person at construction sites due to lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.

9.2.1.23
In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover cost of such damages from payments due to the contractor after holding an appropriate enquiry.

9.2.1.24
In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from payments due to the contractor after notifying the contractor suitably and giving him opportunity to present his case.

9.2.1.25
If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so, and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorized BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.

9.2.1.26 **Emergency Response**

BHEL will have an Emergency Response Plan for each Project Site in consultation with the Owner as the case may be, detailing the procedure for mobilization of personnel and equipment, and defining the responsibilities of the personnel indicated, in order to prepare for any emergency that may arise in order to ensure the priorities of

- Safeguard of life
- Protect assets under construction or neighbouring
- Protect environment
- Resumption of normal operations as soon as the emergency condition is called off

All Contractors shall also be part of the Emergency response Plan and the personnel so nominated shall be aware of their duties and responsibilities in an emergency response situation.

9.2.1.27
At least 5% Contractors supervisors and workmen shall undergo training in administering ‘First Aid’. The trained persons should represent for all categories of work and for all areas of work. Adequate number of trained persons should be available for each shift. These first aides shall be

included in the emergency response team. Contractor employees and workmen are encouraged to participate in first aid training programmes whenever organized by BHEL.

9.2.2 OCCUPATIONAL HEALTH

9.2.2.1
Specific occupational health hazards will be identified through the hazard evaluation processes in consultation with BHEL engineers and the necessary prevention/reduction/elimination methods implemented.

9.2.2.2
All personnel working in an activity with a potential risk to health shall be made aware of all those risks and the actions they must take to reduce/control/eliminate the risk

9.2.2.3
Safety coordinator shall conduct periodic checks to ensure that every group of workers engaged in similar activities are aware of potential risks to health and the actions required to be taken to mitigate the risk

9.2.2.4
In order to protect personnel from associated health hazards, the following main areas will be focused

- Issue of approved Personnel Protective Equipment
- Verification that the PPE are adequate/maintained and worn by all staff involved in operations that are potentially hazardous to their health
- Ensure that the personnel deployed are physically fit for the operation/work concerned
- Provide hygienic and sanitary working conditions

9.2.2.5
Contractor workers employees engaged in noise risk areas shall be issued with hearing protection aids and the use of the same will be enforced. Further, these workers will be educated on the hazards of noise

9.2.2.6
Contractor workers engaged in dust environment shall be issued with necessary dust protection aids and the use of the same shall be enforced

9.2.2.7
Workers engaged in exposure to bright light/rays as in welding or radiation shall be issued with eye protection devices and the use of the same shall be enforced

9.2.2.8
Adequate arrangements shall be made to provide safe drinking water

9.2.2.9
Health monitoring records on at least sample basis for contractor employees & workmen shall be maintained for persons engaged in specified categories of work. These shall include

- Noise induced hearing loss
- Lung Function test
- Ergonomic Test
- Eye Test for Welders, Grinders, Drivers etc

9.2.3.0 HYGIENE and HOUSEKEEPING

9.2.3.1

Good house keeping and proper hygiene is one of the key requirements of Occupational Health Safety and Environment management. Towards this the contractor shall encourage his workers and supervisors to maintain cleanliness in their area of work.

9.2.3.2
The Contractor shall arrange to place waste bins/chutes at convenient locations for the collection of scrap and other wastes. The bins shall be clearly marked and segregated for metal, non-metal, hazardous and non hazardous wastes.

9.2.3.3
BHEL may take up appropriate remedial measures at the cost of the contractors if the contractors fail in good house keeping and if there is an imminent risk of pollution

9.2.4 ENVIRONMENT MANAGEMENT

9.2.4.1
BHEL has a sound environmental management system, which is to be maintained and implemented by all the contractors. The system allows for project specific objectives to be set and developed sensitive to client requirements, applicable environmental legislation and BHEL's own objectives and policy. BHEL engineers will assess and monitor the environmental impact of their work and lay out objectives for their minimization. The contractors shall implement the objectives for continual improvement of environmental performance. BHEL shall regularly audit environmental impacts and their improvements.

9.2.4.2 WASTE MANAGEMENT

9.2.4.3.1
The objective of waste management is to ensure the safe and responsible disposal of waste, ensuring that it is correctly disposed of and being able to audit the process to ensure compliance.

9.2.4.3.2
Chemical wastes if any shall be collected separately and disposed of to BHEL designated refuse yard as per BHEL advice.

9.2.4.3.3
No dangerous chemicals, noxious waste products or materials will be disposed off on or off site without approval obtained through BHEL.

9.2.4.3.4
All disposal of wastes generated during construction shall be in accordance with all relevant legislation.

Acid and alkali cleaning wastes shall be neutralized to acceptable norms before disposal to the designated area.

9.2.4.3.5
All necessary measures shall be taken to ensure safe collection and disposal of waste oils. In particular to ensure the prevention of their discharge into surface waters, ground waters, coastal waters or drainages

9.3 **SUPERVISION**
9.3.1

Contractor must provide at least one full time on site safety coordinator when the manpower engaged is in excess of 50 for the contract activities in the premises. If the manpower is less than 50, the on site safety coordination responsibilities shall be assumed by any one of the contractor's other supervisory staff; however in both the cases, the contractor must specify in writing the name of such persons to the BHEL Engineer in Charge.
9.3.2

Contractor's safety coordinator or his supervisor responsible for safety as the case may be shall conduct at his work site, and document formal safety inspection and audits at least once in a week. Such documents are to be submitted to BHEL Engineer in Charge for his review and record.
Contractor, supervisor must attend all schedule safety meetings as would be intimated to him by the BHEL Engineer in Charge.

9.3.3
Before starting work under any contract, the contractor must ensure that a job specific safety procedures/field practices as required over and above the safety permit conditions are prepared and followed .He should also ensure that all supervisors and workers involved understand and follow this procedures /field practices.

9.3.4
Contractor must ensure that in his work site appropriate display boards are put displaying signs for site safety, potential hazards and precautions required.

9.4.0 **TRAINING & AWARENESS**

9.4.1

Contractor shall deploy experienced supervisors and other manpower who are well conversant with the safety and environment regulations of the Project. The electricians to be deployed on the job should have wireman license.

9.4.2
All Supervisors & Workmen of the Contractor shall undergo Fire safety training/ demonstration whenever arranged by BHEL with the help of either Customer's Fire and Safety department or outside faculty so as to acquire knowledge of fire prevention and also to be able to make use of appropriate fire extinguishers.

9.4.3
Contractor must familiarize himself from BHEL Engineer in Charge about all known potential fire, explosion or toxic release hazards related to the contract. He in turn will ensure that same information has been passed to the supervisors and workmen

9.4.4
Contractor must ensure that all his supervisors are properly trained and each employee has received and understood from his supervisor necessary training and briefing about the safety requirement. Necessary document as a means to verify that employees have understood the training is to be maintained.

9.4.5
The contractor supervisors shall also give a small safety briefing to all the workmen under his charge before undertaking any new work and specially understand the safety requirements that are mandatory

9.5.0 **REPORTING**

9.5.1
The contractor shall submit report of all accidents, fires and property damage, dangerous occurrences to the authorized BHEL official immediately after such occurrence but in any case not later than twelve hours of the occurrence. Such report shall be furnished in the manner prescribed by BHEL and also to meet statutory requirement.

9.5.2
Any injury sustained by any of the contractor's employees within the Project premises must be reported to BHEL supervisor and FIRST AID should be immediately administered. The Contractor shall be responsible for keeping and maintaining proper records of Accidents to his personnel.

9.5.3

Contractor must arrange to immediately investigate, properly document and report any injury, accident or near miss involving any of his employees and take appropriate follow up action. He must furnish within 12 hours of the incident a written report to BHEL Engineer in charge and the Safety Section.

9.5.4
According to the Factory Act and the Employees state Insurance Act & regulation, any person sustaining any injury within the project premises and absenting himself from work for more than 46 hours, his accident report has to be sent to the respective Government Authorities. Therefore contractor shall inform the owner's representative such matter immediately for their needful action.

9.5.5
In addition, contractor shall submit periodic reports on safety to the authorised BHEL official from time to time as prescribed.

9.5.6
Before commencing the work, the contractor shall appoint/nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.

9.6 **AUDIT REVIEW AND INSPECTION**

9.6.1
BHEL shall conduct audit on the contractor performance and compliance with the project specific requirements of the Environment and Occupational Health & Safety Management systems. The programme of audit shall cover all activities under the contract but will focus particularly on high-risk activities. The Construction Manager shall decide the schedule of audit. The audit findings shall be communicated to the contractors and necessary remedial action as advised by BHEL Engineers shall be under taken within the stipulated time.

9.6.2
Inspections shall be carried out regularly by the contractors and by BHEL Engineers on activities, facilities, equipment, documentation, to cover the following aspects.

- Compliance with procedures and systems
- Availability, condition and use of PPE
- Condition of maintenance tools, equipments, facilities
- Availability of fire fighting equipments and its condition
- Use of fire fighting equipments and first aid kit
- Awareness of occupational health hazard
- Awareness of safe working practices
- Presence of quality supervision
- Housekeeping

The Safety coordinator shall visit and inspect work sites daily. All unsafe acts, unsafe conditions that have imminent potential for causing harm/injury/damage will be immediately corrected. He shall maintain a daily logbook giving details of unsafe acts or conditions observed and the corrective action taken and recommendations for preventing recurrence. Adequacy of corrective actions will be verified

The contractor shall take remedial measures as per the findings of each inspection
Besides the above, the contractor shall be required to carry out the following inspections

Sl no	Equipment	Scope of inspection	Inspection by	Schedule
1	Hand tools	To identify unsafe/defective tool	User	Daily
2	Power tools	To identify unsafe/defective tool	User	Daily

3	Fire Extinguishers	To check pressure and any defect	User / Safety Coordinator	Daily Every month
4	Lifting equipment/tackles	To check for defects and efficacy of brakes	User Third party	Daily Every Year
5	PPE	To check for defects	User	Daily

9.7 **NON COMPLIANCE**:-

9.7.1
NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND THE BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR AS UNDER **for every instance of violation noticed**:

Sl. No	Instance of Violation	Fine (in Rs)
01	Not Wearing Safety Helmet	50/-
02.	Not wearing Safety Belt	100/-
03.	Grinding Without Goggles	50/-
04.	Not using 24 V Supply For Internal Work	500/-
05.	Electrical Plugs Not used for hand Machine	100/-
06.	Not Slinging property	200/-
07.	Using Damaged Sling	200/-
08.	Lifting Cylinders Without Cage	500/-
09.	Not Using Proper Welding Cable With Lot of Joints And Not Insulated Property.	200/-
10.	Not Removing Small Scrap From Platforms	200/-
11.	Gas Cutting Without Taking Proper Precaution or Not Using Sheet Below Gas Cutting	200/-
12.	Not Maintaining Electric Winches Which are Operated Dangerously	500/-
13.	Improper Earthing Of Electrical T&P	500/-
	Major Accident or Accidents causing partial loss of earning to the victim	50,000/- per victim
14	Fatal Accident or Accidents causing permanent loss of earning to the victim	1,00,000/- per victim

Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the contractor. The amount collected above will be utilised for giving award to the employees who could avoid accident by following safety rules. Also the amount will be spent for purchasing the safety appliances and supporting the safety activity at site.

9.8
CITATION:-If safety record of the contractor in execution of the awarded job is to the satisfaction of safety department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job

9.9 Memorandum of Understanding
After Award Of Work, Contractors Are Required To Enter Into A Memorandum Of Understanding As Given Below:

SPECIAL CONDITIONS OF CONTRACT

SECTION-9

Memorandum of Understanding

BHEL, PSWR is committed to Health, Safety and Environment Policy (EHS Policy) as given in the booklet titled " Safe Working Practices" issued to all contractors.

M/s _____ do hereby also commit to the same EHS Policy while executing the Contract Number _____

M/s _____ shall ensure that safe work practices not limited to the above booklet are followed by all construction workers and supervisors. Spirit and content therein shall be reached to all workers and supervisors for compliance. BHEL will be carrying out EHS audits twice a year and M/s _____ shall ensure to close any non-conformity observed/reported within fifteen days.

Signed by authorized representative of M/s----------

Name :

Place & Date:

9.10

Comprehensive list of National Standards for reference and use wherever applicable in the execution of Civil, Erection and Commissioning Contracts.

IS No	YEAR	Amd upto	DESCRIPTION
IS 10204	1982		PORTABLE FIRE EXTINGUISHERS MECHANICAL FOAM TYPE
IS 10245	1994		SPECIFICATION FOR BREATHING APPARATUS
IS 10291	1982		SAFETY CODE FOR DRESS DRIVERS IN CIVIL ENGINEERING WORKS
IS 10658	1983		HIGHER CAPACITY DRY POWDER FIRE EXTINGUISHERS (TROLLEY MOUNTED)
IS 10662	1992		COLOUR TELEVISION
IS 10667	1983		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF FOOT AND LEG
IS 11037	1984		ELECTRONIC FAN REGULATORS
IS 11057	1984		INDUSTRIAL SAFETY NETS
IS 11451	1998		RECOMMENDATION FOR SAFETY AND HEALTH REQUIREMENT RELATING TO OCCUPATION EXPOSURE TO ASBESTOS
IS 1169	1967		PEDESTAL FANS
IS 1179	1967		SPECIFICATION FOR EQUIPMENT FOR EYE AND FACE PROTECTION DURING WELDING
IS 11833	1986		DRY POWDER FIRE EXTINGUISHERS FOR METAL FIRES
IS 11972	1987		CODE OF PRACTICE FOR SAFETY PRECAUTION TO BE TAKEN WHEN ENTERING A SEWARAGE SYSTEM
IS 1287	1986		ELECTRIC TOASTER
IS 13063	1991		STRUCTURAL SAFETY OF BUILDINGS ON SHALLOW FOUNDATIONS ON ROCKS
IS 13385	1992		SPECIFICATIONS FOR FIRE EXTINGUISHERS 50 LITRE WHEEL MOUNTED WATER TYPE (GAS CARTRIDGES)
IS 13386	1992		SPECIFICATIONS FOR FIRE EXTINGUISHERS 50 LITRE MECHANICAL FOAM TYPE
IS 13415	1992		CODE OF SAFETY FOR PROTECTIVE BARRIERS IN AND AROUND BUILDINGS
IS 13416	1992		RECOMMENDATIONS FOR PREVENTIVE MEASURES AGAINST HAZARDS AT WORKING PLACE PART 1 TO PART 5

IS No	YEAR	Amd upto	DESCRIPTION
IS 13430	1992		CODE OF PRACTICE FOR SAFETY DURING ADDITIONAL CONSTRUCTION AND ALTERATION TO EXISTING BUILDINGS
IS 13849	1993		PORTABLE FIRE EXTINGUISHERS DRY POWDER TYPE (CONSTANT PRESSURE)
IS 1446	1985		CLASSIFICATION OF DANGEROUS GOODS (FIRST REVISION)
IS 1476	1979		REFRIGERATORS
IS 1641	1988		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL): GENERAL PRINCIPLES OF FIRE GRADING AND CLASSIFICATION
IS 1642	1989		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS-DETAILS OF CONSTRUCTION
IS 1643	1988		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL): EXPOSURE HAZARD
IS 1646	1997		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL): ELECTRICAL INSTALLATIONS
IS 1904	1986		CODE OF PRACTICE FOR DESIGN AND CONSTRUCTION OF FOUNDATIONS IN SOIL
IS 1905	1987		STRUCTURAL SAFETY OF BUILDINGS MASONARY WALLS
IS 2082	1985		ELECTRICAL GEYSERS
IS 2171	1985		PORTABLE FIRE EXTINGUISHERS DRY POWDER TYPE (CARTRIDGE)
IS 2309	1989		PRACTICE FOR THE PROTECTION OF BUILDINGS AND ALLIED BUILDINGS AGAINST LIGHTENING
IS 2312	1967		EXHAUST FANS
IS 2361	1994		SPECIFICATION FOR BUILDING GRIPS - FIRST REVISION
IS 2418	1977		TUBULAR FLUORSCENT LAMPS IS 2418 (FT-1)
IS 2750	1964		STEEL SCAFFOLDINGS
IS 2762	1964		SAFE WORKING LOADS IN KGS FOR WIRE ROPE SLINGS
IS 2878	1986		FIRE EXTINGUISHERS CARBON DIOXIDE TYPE (PORTABLE AND TROLLEY MOUNTED)
IS 2925	1984		SPECIFICATION FOR INDUSTRIAL SAFETY HELMETS
IS 3016	1982		CODE OF PRACTICE FOR FIRE PRECAUTIONS IN WELDING AND CUTTING OPERATIONS- FIRST REVISION
IS 3315	1974		DESERT COOLERS
IS 3521	1989		INDUSTRIAL SAFETY BELTS AND HARNESS
IS 368	1983		IMMERSION WATER HEATERS
IS 3696	1991		SAFETY CODE OF SCAFFOLDS AND LADDERS PART 1 TO 2
IS 3737	1996		LEATHER SAFETY BOOTS FOR WORKERS IN HEAVY METAL INDUSTRIES
IS 374	1979		CEILING FANS INCLUDING REGULATORS
IS 3764	1992		EXCAVATION WORK - CODE OF SAFETY
IS 3786	1983		METHOD FOR COMPUTATION OF FREQUENCY AND SEVERITY RATES FOR INDUSTRIAL INJURIES AND CLASSIFICATION OF INDUSTRIAL ACCIDENTS
IS 3935	1966		CODE OF PRACTICE FOR COMPOSITE CONSTRUCTION
IS 4014	1967		CODE OF PRACTICE FOR STEEL TUBULAR SCAFFOLDING
IS 4081	1986		SAFETY CODE FOR BLASTING AND RELATED DRILLING OPERATIONS
IS 4082	1977	1996	STACKING AND STORAGE OF CONSTRUCTION MATERIALS AND COMPONENTS AT SITE
IS 4130	1991		DEMOLITION OF BUILDINGS - CODE OF SAFETY PART 1 TO 2
IS 4138	1977		SAFETY CODE FOR WORKING IN COMPRESSED AIR (FIRST REVISION)

IS No	YEAR	Amd upto	DESCRIPTION
IS 4155	1966		GLOSSARY OF TERMS RELATING TO CHEMICAL AND RADIATION HAZARDS AND HAZARDOUS CHEMICALS
IS 4209	1967		CODE OF SAFETY FOR CHEMICAL LABORATORY
IS 4250	1980		FOOD MIXERS
IS 4262	1967		CODE OF SAFETY FOR SULFURIC ACID
IS 4756	1978		SAFETY CODE FOR TUNNELING WORK
IS 4912	1978		SAFETY REQUIREMENTS FOR FLOOR AND WALL OPENINGS, RAILINGS AND TOE BOARDS
IS 5121	1969		SAFETY CODE FOR PILING AND OTHER DEEP FOUNDATIONS
IS 5182	1969	1982	METHODS FOR MEASUREMENT OF AIR POLLUTION
IS 5184	1969		CODE OF SAFETY FOR HYDROFLUORIC ACID
IS 5216	1982	2000	RECOMMENDATIONS ON SAFETY PROCEDURES AND PRACTICE IN ELECTRICAL WORK PART I AND II
IS 555	1979		TABLE FANS
IS 5557	1995		INDUSTRIAL AND SAFETY LINED RUBBER BOOTS (SECOND REVISION)
IS 5916	1970		SAFETY CODE FOR CONSTRUCTION INVOLVING USE OF HOR BITUMINOUS MATERIALS
IS 5983	1980		SPECIFICATION FOR EYE PROTECTORS - FIRST REVISION
IS 6234	1986		PORTABLE FIRE EXTINGUISHERS WATER TYPE (STORED PRESSURE)
IS 692	1994		CRITERIA FOR SAFETY AND DESIGN OF STRUCTURES SUBJECTED TO UNDERGROUND BLASTS
IS 6994	1973		SPECIFICATION FOR SAFETY GLOVES
IS 7155	1986		CODE OF RECOMMENDED PRACTICE FOR CONVEYOR SAFETY (PART 1 TO 8)
IS 7205	1974		SAFETY CODE FOR ERECTION OF STRUCTURAL STEEL WORK
IS 7293	1974		SAFETY CODE FOR WORKING WITH CONSTRUCTION MACHINERY
IS 7323	1994		GUIDELINES FOR OPERATIONS OF RESERVOIRS
IS 7812	1975		CODE OF SAFETY FOR MERCURY
IS 7969	1975		SAFETY CODE FOR HANDLING AND STORAGE OF BUILDING MATERIALS
IS 8089	1976		CODE OF SAFE PRACTICE FOR LAYOUT OF OUTSIDE FACILITIES IN AN INDUSTRIAL PLANT
IS 8091	1976		CODE OF PRACTICE FOR INDUSTRIAL PLANT LAYOUT
IS 8095	1976		ACCIDENTS PREVENTION TAGS
IS 818	1968	1997	CODE OF PRACTICE FOR SAFETY AND HEALTH REQUIREMENTS IN ELECTRIC AND GAS WELDING, AND CUTTING OPERATIONS
IS 8448	1989		AUTOMATIC LINE VOLTAGE CORRECTOR (STABILISER)
IS 8519	1977		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR BODY PROTECTION
IS 8520	1977		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR EYE, FACE AND EAR PROTECTION
IS 875	1987		STRUCTURAL SAFETY OF BUILDING: LOADING STANDARD PART 1 TO 5
IS 8807	1978		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF ARMS AND HANDS
IS 8978	1985		INSTANTANEOUS WATER HEATERS
IS 8989	1978		SAFETY CODE FOR ERECTION OF CONCRETE FRAMED STRUCTURES

IS No	YEAR	Amd upto	DESCRIPTION
IS 940	1989		PORTABLE FIRE EXTINGUISHERS WATER TYPE (GAS CARTRIDGE)
IS 9457	1980		SAFETY COLOURS AND SIGNS
IS 9679	1980		CODE OF SAFETY FOR WORK ENVIRONMENTAL MONITORING
IS 9706	1997		CODE OF PRACTICE FOR THE CONSTRUCTION OF AERIAL RPEWAYS FOR THE TRANSPORTATION OF MATERIAL
IS 9759	1981		GUIDELINES FOR DEWATERING DURING CONSTRUCTION
IS 9815	1989		SERVO MOTOR OPERATED LINE VOLTAGE CORRECTOR (SERVO STABILISER)
IS 9944	1992		RECOMMENDATIONS ON SAFE WORKING LOAD FOR NATURAL AND MAN-MADE FIBRE ROPE SLINGS
IS 996	1979		SINGLE PHASE ELECTRIC MOTORS
ISO 3873	1977		SAFETY HELMET

SPECIAL CONDITIONS OF CONTRACT

SECTION-10

10.0 DRAWINGS AND DOCUMENTS

The technical details and drawing of the Generator Stator given in this tender specification are only for guidance and only indicative of the requirement. The contractor shall take note of all the aspects of technical details furnished while arranging the required equipments/ materials/services as the case may be.

10.1
The detailed drawings, specifications available with BHEL engineers will also form part of this tender specification. Revision of drawings/documents may take place due to various considerations as is normal in such large project. Work will have to be carried out as per revised drawings/ documents. These documents will be made available to the contractor during execution of work at site.

10.2
One set of necessary drawings/documents to carry out the erection work will be furnished to the contractor by BHEL.

10.3
If any error or ambiguity is discovered in the specification/information contained in the documents/drawings and tender, the contractor shall forthwith bring the same to the notice of BHEL before submission of offer.

10.5
In case an ambiguity is detected after award of work, the same must be brought to the notice of BHEL before commencement of the work/activity. BHEL's interpretation in such cases will be final and binding on the contractor.

10.6
In case of any conflict between general instructions to tenderness, general conditions of contract contained in sections 1 & 2 respectively and special conditions of contract contained in sections 4 to 15 and appendices, provisions contained in special conditions of contract in sections 4 to 15 and appendices shall prevail.

10.7
In case of discrepancy between quoted item rate and corresponding amount in the rate schedule, the **quoted item rates shall be reckoned as correct and amount recalculated**. Quoted item rates shall also prevail for arriving at the total price quoted for offer evaluation. Offers will evaluated on the total amount for the entire Rate Schedule and the work will be awarded without splitting the scope.

10.8
Bank Guarantees to be furnished by the contractor towards Security Deposit and Performance Guarantee (last 5% payment against workmanship warranty/defect liability) shall have a claim period of six months over and above the validity period required for the respective cases. BG for advance payment shall be kept valid for a period of two more months beyond the recovery period of the advance with interest thereof.

SPECIAL CONDITIONS OF CONTRACT

SECTION-11

11.0 TIME SCHEDULE, CONTRACT PERIOD ETC

11.1 TIME SCHEDULE

The contractor shall mobilise his resources so that the entire work shall be completed to meet the following schedule.

(a) **Mobilization of Set-up** - within **4 weeks from the date of LOI/** Notice to mobilize for each set.

(b) **Complete installation of System and making it ready for lifting of Generator Stator** – Within 8 weeks from the date of LOI/ Notice to mobilize for each set.

(c) Trailer is to be freed within 48 hours after positioning the same for unloading of Generator Stator.

(d) The time schedule for supply of Generator Stator given at section 4.1.1 is tentative and may change depending on progress of the project and notice to mobilize shall be given for each set 8 weeks in advance.

(e) Demobilization of Set up- After placement of Generator stator at its location contractor shall demobilize as per instruction of BHEL engineer.

11.2 INTEREST BEARING ADVANCE

Refer 'General Conditions of Contract'

11.3 REVIEW AND MONITORING

The detailed plan and progress of mobilization and installation of the system shall be made by the contractor and approved by BHEL. This shall be reviewed regularly and contractor shall take necessary action based up on the review and as per instruction of BHEL.

11.4 DEFINITION Of WORK COMPLETION:

The work under the scope of the contractor will be deemed to have been completed in all respect, only when all the activities, supplies and obligations under the scope of this Tender Specification are completed satisfactorily and so certified by the BHEL site in charge. The decision of BHEL shall be final and binding on the contractor.

12.0 TERMS OF PAYMENT

100% payment in each running bill will be released as per the following provisions with regard to Stages of Payment.

12.1 Payment of Running Account Bills

12.1.1 The agreed rates for Generator Stator shall be paid progressively as per the break up given hereunder based on the progress of work. The contractor shall submit his running bills with the details of measurement required by BHEL Engineer as per the billing calendar decided by BHEL Engineer at site.

12.1.2 The payment for running bills will normally be released within 30 days of submission of running bill. Contractor shall make his own arrangement for making payment of impending labour wages and other dues in the meanwhile.

12.2 STAGES OF PAYMENT

12.2.1 PROGRESSIVE PAYMENT

SN	ACTIVITY	% Break up Payment
01	Mobilization of complete set up to site	10%
02	Installation and making ready the Lifting and Shifting system at specified location for lifting of Generator Stator.	10%
03	Completion of Lifting/Placement of Generator Stator on its Foundation	75%
04	Complete Demobilization/Dismantling of all Equipments & contractors set-up	5%
	TOTAL	**100%**

12.3 Mode of Payment and measurement of work completed

Refer General Conditions of Contract

13.0 Extra Charges For Modification And Rectification

Refer 'General Conditions of Contract'

14.0 INSURANCE

Refer 'General Conditions of Contract'

15.0 EARNEST MONEY DEPOSIT , SECURITY DEPOSIT & BANK GUARANTEE

15.1 EARNEST MONEY DEPOSIT

Refer 'General Conditions of Contract'

15.2 SECURITY DEPOSIT

Refer 'General Conditions of Contract'

15.3 BANK GUARANTEE

Refer 'General Conditions of Contract'

15.3.1 Guidelines for acceptance of Bank Guarantees are as follows :

- Vendors are advised to obtain BG from any of the following BHEL consortium banks

State Bank of India	The Hongkong and Shanghai banking Corporation Ltd.
ICICI Bank Ltd	ABN Amro Bank N.V
Bank of Baroda	IDBI Ltd
Canara Bank	Punjab National Bank
Citi bank N.A	Standard Chartered Bank
Corporation Bank	State Bank of Travancore
Detshe Bank	State Bank of Hydrabad
HDFC Bank Ltd	Syndicate Bank

- The Bank Guarantees of all Public sector banks shall be accepted (Other than consortium banks also).
- The Bank Guarantees of Co-operative banks shall not be accepted.
- Bank Guarantees of other banks (banks other than consortium bank, public sector bank, & Co-operative banks) can be accepted subject to an overall exposure limit (at BHEL, PSWR, Nagpur) of RS. 10 crores for banks with net worth of more than Rs. 500 crores as on last balance sheet date and Rs 5 crores for banks with net worth between Rs. 350 to Rs 500 crores (A certificate and copy of latest Balance Sheet to be given at the time of submission of banuarantees . (A certificate and copy of latest Balance Sheet to be given at the time of submission of bank guarantees .
- In case Bank Guarantees given by non consortium banks (Private sector or Public sector), the bank Guarantees shall be enforceable at Nagpur, Maharastra.

SPECIAL CONDITIONS OF CONTRACT
SECTION-16

SUSPENSION OF BUSINESS DEALING WITH CONTRACTORS
(W.E.F 18.05.09)

16.1 A bidder may be put on HOLD for a period of 6 months, for future tenders for specific works on the basis of one or more of the following reasons:

I. Bidder does not honour his own offer or any of its conditions within the validity period.
II. Bidder fails to respond against three consecutive enquires of BHEL.
III. After placement of order, Bidder fails to execute a contract.
IV. Bidder fails to settle sundry debt account, for which he is legitimately liable, within one year of its occurrence.
V. Bidder's performance rating falls below 60% in specific category.
VI. Bidder works are under strike/ lockout for a long period.

16.2 A Bidder may be de-listed from the list of registered Bidders of the region for a period of 1 year on the basis of one or more of the following reasons:-

I. Bidder tampers with tendering procedure affecting ordering process or commits any misconduct which is contrary to business ethics.
II. Bidder has substituted, damaged, failed to return, short returned or unauthorizedly disposed off materials/ documents/ drawings/ tools etc of BHEL.
III. Bidder no longer has the technical staff, equipment, financial resources etc. required to execute the orders/ contracts.

16.3 A Bidder can be banned from doing any business with all Units of BHEL for a period of 3 years on the basis of one or more of the following reasons:

I. Bidder is found to be responsible for submitting fake/ false/ forged documents, certificates, or information prejudicial to BHEL's interest.
II. In spite of warnings, the Bidder persistently violates or circumvents the provisions of labour laws/ regulations/ rules and other statutory requirements.
III. Bidder is found to be involved in cartel formation.
IV. The Bidder has indulged in malpractices or misconduct such as bribery, corruption and fraud, pilferage etc which are contrary to business ethics.
V. The Bidder is found guilty by any court of law for criminal activity/ offences involving moral turpitude in relation to business dealings.
VI. The Bidder is declared bankrupt, insolvent, has wound up or been dissolved; i.e ceases to exist for all practical purposes.
VII. Bidder is found to have obtained Official Company information/ documentation by questionable means.
VIII. Communication is received from the administrative Ministry of BHEL to ban the Bidder from business dealings.

APPENDICES

APPENDIX-I

LIST OF DRAWINGS ATTACHED

Sl.No.	DESCRIPTION	DRG No.	REV No.
AMRAVATI & NASIK			
1	TG Equipment Layout Plan at 0.0M	PE-DG-292-100-M003	A
2	TG Hall Equipment Layout Plan at 15.5 M, 21.0M Level	PE-DG-352-100-M005	A
3	Cross Section of TG Building	PE-DG-352-100-M006	A
4	Generator Outline for Amravati	0-139-00-01367	01
5	Generator Outline for Nasik	0-139-00-01368	01
6	Location of Foundation for Strand Jack & Tentative load details on Foundation		
Avantha Bhandar			
1	TG Equipment Layout Plan at 0.0M	PE-DG-339-100-M003	04
2	TG Hall Equipment Layout Plan at 17 M Level	PE-DG-352-100-M005	04
Jhabua			
1	Generator Outline for Jhabua	0-139-00-01367	01
2	TG Equipment Layout Plan at 0.0M	PE-DG-357-100-M003	02
3	TG Hall Equipment Layout Plan at 17 M Level	PE-DG-357-100-M005	02

NOTE:
THE ABOVE DRAWINGS ARE PROVIDED ONLY FOR INFORMATION AND WORK HAS TO BE DONE WITH REFERENCE TO THE LATEST APPLICABLE DRAWING.

Above drawings are not hosted in the web-page. Bidders are requested to obtain these drawings from BHEL PSWR Nagpur.

APPENDICES

APPENDIX–II

DETAILS OF SIMILAR WORK DONE DURING THE LAST SEVEN YEARS

SL. NO.	FULL POSTAL ADDRESS OF CLIENT & NAME OF OFFICER IN CHARGE	DESCRIP-TION OF WORK	VALUE OF CONTRAC T	DATE OF AWARD OF WORK	DATE OF COMMENCE MENT OF WORK	ACTUAL COMPLETION TIME (MONTHS)	DATE OF ACTUAL COMPLETIO N OF WORK	REMARKS

SIGNATURE OF BIDDER WITH SEAL

APPENDICES

APPENDIX –III

CURRENT COMMITMENTS OF THE BIDDER

SL. NO.	FULL POSTAL ADDRESS OF CLINT & NAME OF OFFICER IN CHARGE	DESCRIP-TION OF WORK	VALUE OF CONTRACT	DATE OF COMMEN CEMENT OF WORK	SCHEDUL E OF COMPLE-TION	% OF WORK COMPLETED AS ON DATE	EXPECTED DATE OF COMPLETION	REMARKS

SIGNATURE OF BIDDER WITH SEAL

APPENDIX- IV

ANALYSIS OF UNIT RATE QUOTED

Sl.No.	Description	% Of Unit Rate Quoted	Remarks
01	Site Facilities And Other Infrastructure		
02	Salary And Wages		
03	Consumables		
04	Depreciation And Maintenance For T&P And Other Items		
05	Establishment and Administrative Expenses of Site		
06	Retrenchment Benefit		
07	Extra Work Incidental To Erection		
08	Overheads		
09	Profit		
TOTAL			

SIGNATURE OF THE BIDDER WITH SEAL