



CHHATTISGARH STATE POWER TRANSMISSION CO. LTD.

(A successor Co. of CSEB) (A CG Govt. undertaking)

OFFICE OF THE CHIEF ENGINEER (S&P) CSPTCL :
DANGANIA : RAIPUR : 492 013

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TENDER SPECIFICATION

TR-20/S&P/25

**Providing, Fixing, Testing and Commissioning of Fire
 Protection system by dismantling of existing system
 at 400 KV S/s Khedamara (PSDF Scheme).
 (Through E-Bidding)**

RFx No. - 8100019657

LAST DATE & TIME OF SUBMISSION OF TENDER

29.12.2020 (Time 15:00 Hrs.)

DUE DATE OF OPENING OF TENDER

29.12.2020 (Time 15:30 Hrs.)

**Cost of Tender:- i) Rs.1120 (Incl 12% GST) (if purchased from O/o CE S&P)
 ii) Rs.1180 (Incl 18% GST)(if downloaded from website)**

//SAVE ELECTRICITY, SAVE EARTH//

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TENDER SPECIFICATION

CHHATTISGARH STATE POWER TRANSMISSION COMPANY RAIPUR (C.G.)

Tender document SL.No.....

ISSUED to M/s -----

Cost of Tender documents Rs.....

Received vide D.D.No.....Dtd.....

Name of Bank -----

Signature & Seal of Issuing Authority

CHHATTISGARH STATE POWER TRANSMISSION COMPANY

RAIPUR C.G. (INDIA)

TENDER FORM

The undersigned hereby tender and offer (subject to CSPTCL's conditions of tendering), the Chhattisgarh State Power Transmission Company to test and supply the equipment. To the specification of Tender no: TR-20/S&P/25 copies of which are annexed hereto and which under the terms thereof are to be supplied by the bidder in a thoroughly good and workman like manner, and to perform and observe the provisions reasonably to be inferred from the said tender documents for the sum and at the rates set out in schedules annexed hereto.

It is confirmed that:

- (I) Questionnaire for Commercial terms and conditions.
- (II) Questionnaire for Technical specifications of the Equipments, and
- (III) All other conditions wherever described in the tender documents have been replied in full giving clear details. It has been noted that in case any reply is not given or any reply is incomplete/ambiguous the CSPTCL will have right to take the same to be advantageous for the CSPTCL. CSPTCL's decision in this regard will be final. The bidder will have no right to furnish any technical or commercial clarification after opening of the bid, which may in any way alter the offered prices.

Dated, this ... day of2020

Bidder's Signature

Bidder's Address.

CHHATTISGARH STATE POWER TRANSMISSION CO. LTD



(A Govt. of Chhattishgarh undertaking) (A successor company of CSEB)

CIN- U40108CT2003SGCO15820 / GSTIN-22AADCC5773E1ZX

O/o Chief Engineer (Store & Purchase)

Third floor, SLDC Building, Danganiya Raipur-492013.

Website- www.cspc.co.in,

Phone-0771-2574240/2574236

Email id :- narendra.bisen2010@gmail.com

Fax-0771-2574246

No.02-16/SE-I-(S&P)/TR-20/S&P/18/22/25/39/34/1578

Raipur, Dtd.08.12.2020

E-PROCUREMENT TENDER NOTICE

Sealed tenders are invited from experienced manufacturers/eligible bidders for supply of following equipments/ materials.

Sl. No.	Tender No.	Particulars	Qty	Cost of tender doc. (Rs.) including GST (Rs.)		EMD (Rs.)	Due date of opening
				Printed Tender Form	E-Tender Form Online (downloaded from website)		
1.	TR-20/S&P/18 RFx No- 8100019569	Procurement of 132 KV Isolator without earth switch rating 800 Amp/1200Amp	157 Sets	1120/-	1180/-	1,17,814/-	29/12/2020
2.	TR-20/S&P/22 RFx No- 8100019634	Procurement of 33KV Vaccum Circuit Breaker	66 Nos.	1120/-	1180/-	1,59,000/-	29/12/2020
3.	TR-20/S&P/25 RFx No- 8100019657	Providing, Fixing, Testing and Commissioning of Fire Protection system by dismantling of existing system at 400 KV S/s Khedamara under PSDF Scheme.	1 JOB	1120/-	1180/-	1,40,000/-	29/12/2020
4.	TR-20/S&P/39 RFx No- 8100019656	Procurement of Filtration machine (Minimum 1000 GPH) under PSDF scheme	05 Nos.	1120/-	1180/-	1,48,000/-	29/12/2020
5.	TR-20/S&P/34 RFx No- 8100019671	Procurement of Aerial access work platform + vehicle (13Mtr. working height,250 kg weight lift)	01No.	1120/-	1180/-	31,000/-	29/12/2020

- Note:-** :-i) In case any of the above dates is declared as holiday then the particular date will automatically get shifted to next working day.
ii) The quantities mentioned above are tentative & may vary according to final requirement.
iii) Any notice for extension of due date of tender opening shall not be published in newspapers. It will be displayed only on official website of the company.

- iv) The tender will be processed through e-bidding module of SAP-SRM. Bidders are advised to visit our website www.cspc.co.in/csptcl for viewing detailed instructions regarding submission of offer through SAP-SRM.
- v) The NIT shall also be published in www.tarang.website.

(B) TERMS AND CONDITIONS:-

- (i) The tender documents can be obtained from the office of the CE (S&P) in person on payment of cost of tender documents in the form of DD only made out in the name of Manager (RAO: HQ), CSPTCL, Raipur accompanied with firm's application on its letter head. If tender document is required by post, Rs.250/- is to be paid by DD additionally along with the cost of documents. If more than one tender document is required, separate DDs should be furnished for each tender. CSPTCL shall not be responsible for any postal delay in receipt/ non-receipt of tender documents. No receipt of tender shall be issued in any case.
- (ii) The tender document can also be downloaded from official website of CSPTCL 'www.cspc.co.in' (go through Chhattisgarh State Power Transmission Co. Ltd.- Tender Notice/ Procurement & Project Offices) and required tender fee in form of DD in favour of Manager (RAO:HQ), CSPTCL, Raipur payable at Raipur should be submitted along with EMD in envelope containing DD of EMD. The envelope containing DDs of cost of tender document and EMD should be suitably super scribed "DDs containing cost of tender document and EMD". The details of DDs be mentioned on the outer side of the envelope also. Please note carefully in absence of aforesaid requisite tender fee, further bids shall not be considered for opening.
- (iii) Tender document and the details specification can be obtained on any working day one day prior to the due date. The tenders duly filled in shall be dropped/ get dropped in the specified tender box up to 15.00 Hrs on the due date. Any other means of delivery shall not be accepted. No receipt of tender shall be issued in any case. The tender box shall be locked/ sealed at 15.00 Hrs on the due date and shall be opened at 15.30 Hrs on the same date.
- (iv) After publication of NIT & before the date of opening of TC bid, corrigendum/ other information (if any) shall be displayed on our official web only. The bidders are requested to remain in contact with this office or visit our web-site for any development/ clarification/ amendment issued subsequently.
- (v) CSPTCL reserves the right to accept or reject any or all the offers, in part or full without assigning any reason whatsoever.

CHIEF ENGINEER (S&P)
C.S. Power Trans.Co.Ltd., Raipur

Special Instructions to bidders for submission of bid through SAP- SRM module (e-bidding)

The tender specification no. TR-20/S&P/25 is to be processed through e-bidding. The bid is to be submitted online as well as offline (hard copy). Details of NIT & Tender Documents are available on our website – <http://www.cspc.co.in> & <https://ebidding.cspcl.co.in:50724/irj/portal>. The bidder may download the same from the above site. In e-bidding portal, tender documents will be displayed in online tender display at Technical RFX section.

For bidders, it is recommended to open the e-bidding portal by the following the path www.cspc.co.in->e-Bidding->"click here for e-Bidding Web portal".

Last date & time of submission of bid in hard copy and also in softcopy is 29.12.2020 **up to 3:00 pm** and due date & time of opening of part –I and part-II of the tender is 29.12.2020 **at 3:30 pm**.

Important Instructions :-

1. Please note that this tender shall be processed online as well as offline. The bidder has to submit all the documents in hard copy as per tender specifications in four envelopes. Besides above, scanned copy of following documents are to be uploaded in e-bidding portal:-
 - (a) The scanned copy of DD for tender fee.
 - (b) The scanned copy of DD for EMD/ EMD exemption.
 - (c) Schedule V commercial information.
 - (d) Schedule VI (A) Schedule for commercial deviation.
 - (e) Schedule VI (B) Schedule for Technical deviation.

It may please be noted that only above mentioned documents are to be uploaded in e-bidding portal and no other document is required to be submitted in e-bidding portal. The bidder shall give reply to following questions regarding above documents in e-bidding portal:-

- (i) Whether scanned copy of tender fee DD uploaded. Yes/No
 - (ii) Whether scanned copy of DD of EMD /EMD Exemption uploaded. Yes/No
 - (iii) Whether scanned copy of Schedules of Commercial information Yes/No
 - (iv) Whether scanned copy of Schedules of Commercial deviation Yes/No
 - (v) Whether scanned copy of Schedules of Technical deviation Yes/No
2. **It is not required to upload /attach scanned copy of price bid in soft/Hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e-tender). Rates should be quoted online & in specified fields only.** Once the rates are filled, the bidders may change their rates upto the due date and time of submission of tender. After due date and time, no change on any ground whatsoever will be accepted.
 3. After scrutiny of techno-commercial bid, the price bid will be opened in e-bidding system only of eligible bidders for which suitable intimation will be given to the bidders offline & through email.

4. Please note that e-mail is always system generated, hence bidders are advised to regularly check their inbox/junk mail box.
5. CSPTCL shall not assume any responsibility for non-supporting of system, internet, line & associated hardware & software for bidding their tender. No extension in time shall be granted on such grounds. The bidder should submit their bid well before submission dead line to avoid any system related problem. It is strongly recommended not to wait for submission of bid in last minutes as internet/technical problem may disrupt their works.
6. Reference time for submission dead line shall be the time displayed in the portal and shall be treated as final.
7. After end of submission dead line, no alteration in the tender will be allowed by the system. However, in case of extension of due date of opening of tender, the bidders will be allowed to submit revised bid in the system.
8. CSPTCL will not accept incomplete bid.
9. The bidder must have a valid Digital Signature & SAP SRM User ID. User ID & Password from CSPTCL and Digital Signing Certificate and Digital Encryption Certificate from any recognized digital signature issuing authority are required for participation in any Tender. The bidder shall intimate in advance regarding details of digital signature issuing authority for ensuring the reliability of the same. For User ID and Password for participating in the tender, the bidder shall register on line through e-bidding portal.
10. The e-bidding vendor user manual displayed on website-<https://ebidding.cspcl.co.in:50724/irj/portal> for the help of the bidders. For any further queries the bidder may contact at Helpline no. 0771-2576672/73 (EITC, CSPDCL, Raipur)
11. The training for bidders will be on every Wednesday from 3.00 pm to 5.00 pm at office premises of Energy Info Tech Center (EITC) at Dangania, Raipur.
12. Tender shall be opened in the scheduled time as notified. If the due date of opening/submission of tender documents is declared a holiday by the Govt. or local administration, it will be automatically shifted to next working day for which no prior intimation shall be given. Tender opening shall be continued on subsequent days, in case the opening of all tenders is not completed on due date because of the technical constraints of system on the day of opening. It may be noted that the due date of opening/time may be altered/ extended if desired by CSPTCL without assigning any reason. However, intimation shall be available on company's tender portal/bidders email (if participation shown). The bidders are requested to keep track of the same.
13. Amendment in tender specification will be published on our website as well as in SRM system and the intimation regarding amendment in date extension will be conveyed through system generated e-mail to registered bidders only.
14. Before participating the bidder shall carefully read all the instructions and processes.
15. Tender duly completed in all respects will be accepted online up to due date & time and will be opened on the due date at specified time in the presence of tenderers or their authorized representatives. In case of authorized representative(s) they shall bring the original authorization letter with their signature attested by the bidder.

CHIEF ENGINEER(S&P)
CSPTCL: RAIPUR

SECTION-I(A)

INSTRUCTIONS TO BIDDERS

IMPORTANT: Except as otherwise provided in any subsequent modification/LOI/Order, the provision of this Section shall have effect notwithstanding anything inconsistent therewith contained in any other Schedule/ Annexure/ Clause/ Terms/ Condition of this tender document.

e-Bidding & Due date: Please note that the Tender shall be processed through e-Bidding. Instruction to Bidders for submission of Bids through SAP-SRM Module (e-Bidding) are detailed in **Instructions to bidders for submission of bid through SAP- SRM module (e-bidding)**

1. The bidders are requested to go through these instructions carefully and submit the tender in e -Bidding portal and also in hard copy accordingly.

Date of submission of tender is 29.12.2020 upto 3:00 PM and tender will be opened on same day at 3.30 PM in the Office of CE (S&P), CSPTCL, Danganiya, Raipur, through E-bidding as per the guidelines .

The Chhattisgarh State Power Transmission Company Ltd., Raipur (or any authority designated) - hereinafter called 'OWNER' or 'CSPTCL' or 'Company' - will receive bids as per the accompanying specification. All bids shall be prepared and submitted in accordance with instructions, terms and conditions stipulated in the tender.

2. **Tender Fee:** - The tender document can also be downloaded from official website of the CSPTCL (www.cspc.co.in/csptcl). In case bidder chooses to submit his offer on downloaded tender document, they will be required to deposit specified tender fee (cost of tender documents- non refundable) in form of DD in favour of Manager (RAO:HQ), CSPTCL, Raipur payable at Raipur. The bank draft shall be issued from the nationalized/ scheduled bank. **DD should be enclosed with the part I of the tender offer.** In absence of tender fee, offer will not be considered for opening of price bid.
3. **Earnest Money:-** The Earnest Money in the instant tender is **Rs. 1,40,000/- (Rs. One Lakh Forty Thousand)** only) payable in the form of demand draft in favor of Manager (RAO : HQ), CSPTCL, Raipur. A copy of cancelled cheque may also be submitted along with the EMD.
4. The bidding is open to manufacturers only who can provide satisfactory evidence to substantiate this.

5) **The Pre Qualifying Requirements :-**

	(A)TECHNICAL & EXPERIENCE	Required Document
1.1	<p>a)The bid may be submitted by a “sole bidder” or by the lead partner of a consortium/Joint venture (JV). (Maximum of 2 partner /venture are allowed to form consortium or Joint Venture including the lead partner)</p> <p>b)Bidder should have valid ISO 9001:2008/2015 certificate as on the date of bid opening. (to ensure quality management system)</p> <p>In case of consortium/Joint venture this criterion is to be met by lead partner of the consortium/Joint venture.</p> <p>c) Bidder should have valid ISO: 45001:2018 certificate as on the date of bid opening (to ensure safety management system)</p> <p>In case of consortium/Joint venture this criterion is to be met by lead partner of the consortium/Joint venture.</p>	<p>i)Bidder should be registered legal entity in India (an organisation which is legally permitted to enter into a contract).</p> <p>In case of a consortium/Joint Venture, this criteria needs to be met by lead partner of the consortium/Joint Venture.</p> <p>ii)Self attested copy of the valid ISO 9001:2008/2015 certificate issued in the name of “sole bidder”.</p> <p>In case of consortium/Joint Venture ongoing valid certificate issued by lead partner of the consortium/joint venture may please be produced.</p> <p>iii)Self attested copy of valid ISO: 45001:2018 certificate issued in the name of “sole bidder”.</p> <p>In case of consortium/Joint Venture ongoing valid certificate issued by lead partner of the consortium/joint venture may please be produced.</p>
1.2	<p>The Bidder should have a minimum experience of Five (5) years in the field of supply, installation, testing & commissioning the job of fire detection system and Water or Gas suppression system for fire protection” to the following Indian Entities as on date of issue of NIT:-</p> <p>i) Power utilities owned and controlled by Central or State Govt, Or</p> <p>ii) PSUs, Or</p> <p>iii) Govt. organizations</p> <p>In case of consortium/ Joint Venture this criteria is to be met by lead partner of the consortium/ Joint Venture.</p>	<p>In support of Bidder having minimum experience of at least five years in the field of supply, installation, testing & commissioning the job of fire detection system and Water or Gas suppression system for fire protection, issued by the entities mentioned above in clause 5A(1.2) will be submitted.</p> <p>In case of consortium/ Joint Venture this criteria is to be met by lead partner of the consortium/ Joint Venture.</p>
1.3	<p>The job mentioned at clause 5 A (1.2) should be in successful operation for minimum 3 years from completion date of job as on date of issue of NIT in the aforesaid entities mentioned in clause 1.2.</p>	<p>In support of satisfactory performance, a self attested copy of performance certificate for minimum 3 years from completion date of job as on date of issue of NIT issued by the entities mentioned in clause 5.A(1.2) of the PQR will be submitted.</p>
1.4	<p>Authorization letter for the specific tender from the manufacturer’s/OEM for specialized fire fighting/ protection equipments/materials may please be furnished, to satisfy that the bidder is capable to</p>	<p>A declaration issued by the manufacturer’s/OEM has to be furnished stating support for spares as and when required after handing over the work and also the</p>

	<p>execute the job with original fire fighting equipments/material as listed in the approved make list.</p> <p>Further the declaration from manufacturer's/OEM has to be furnished stating support for spares as and when required after handing over the work and also the declaration from bidder (any of the partner of the consortium/Joint Venture) has to be furnished stating to provide the required services as and when required after handing over the work.</p>	<p>declaration from bidder (any of the partner of the consortium/Joint Venture) has to be furnished stating to provide the required services as and when required after handing over the work to confirm that they shall ensure the availability of all spare parts/services required for the job at least 10 years after supply & services.</p>
1.5	<p>Bidders should have a valid GST registration number as well as Income tax registration number /PAN.</p> <p>In case of a consortium/Joint venture, this criteria needs to be met by lead partner of the consortium/Joint Venture.</p>	<p>Bidder should submit Self attested copies of GST registration certificate and PAN Card.</p> <p>In case of a consortium/Joint venture, this criteria needs to be met by lead partner of the consortium/Joint Venture.</p>
1.6	<p>The bidder should be registered with Engineer India Limited for its corresponding product.</p> <p>In case of consortium/joint venture this criteria need to be met by lead partner of the consortium/joint venture.</p>	<p>Self attested copy of the ongoing valid certificate issued in the name of "sole bidder".</p> <p>In case of consortium/joint venture ongoing valid certificate issued by lead partner of the consortium/joint venture may please be produced.</p>
B	COMMERCIAL	
1.1	<p>The sole bidder/lead partner of Joint Venture (JV)/consortium should have Minimum Average Annual Turn Over (MAAT) for best three years out of last five financial years i.e. 2015-16, 2016-17, 2017-2018, 2018-2019 & 2019-20 of Rs. 2.10 Cr. (Rs. Two Crore Ten Lakh only).</p> <p>In case where audited balance sheet of FY 2019-20 is not available, a self-declaration of this effect countersigned by a practicing chartered accountant needs to be attached and provisional Balance Sheet for F.Y 2019-20 duly countersigned by a practicing CA shall be submitted by the bidder; in such cases audited balance sheets of financial years for FY 2014-15 to 2018-19 shall be considered for evaluation purpose.</p> <p>In case bidder is a holding company, MAAT shall be that of holding company only (i.e. excluding its subsidiary / group companies). In case bidder is a subsidiary of a holding company, the MAAT shall be of subsidiary company only (excluding its holding company).</p>	<p>Statement of annual turnover (as per annexure of the tender), audited balance sheets and profit & loss statement duly certified by Chartered Accountant. The audited balance sheets furnished should be for these financial years (i.e. F.Y 2015-16, 2016-17, 2017-2018, 2018-2019 & 2019-20).</p> <p>In case where audited balance sheet of FY 2019-20 is not available, a self-declaration of this effect countersigned by a practicing chartered accountant needs to be attached and provisional Balance Sheet for F.Y 2019-20 duly countersigned by a practicing CA shall be submitted by the bidder; in such cases audited balance sheets of financial years for FY 2014-15 to 2018-19 shall be considered for evaluation purpose.</p>
1.2	<p>Net worth of sole bidder/lead partner of Joint Venture (JV)/consortium for last three financial years i.e. 2017-18, 2018-19 & 2019-20 out of submitted balance sheets as per clause 1.1 above, should be positive. In case audited balance sheet for FY 2019-20 is not available, net-worth as per</p>	<p>A statement showing 'Net worth' including assets and liability of the bidder duly certified by chartered accountant for the last three financial years (i.e. F.Y 2017-18, 2018-19 & 2019-20) shall also be furnished. In case</p>

	<p>audited balance sheet of previous three years i.e. 2016-17,2017-18 and 2018-19 should be considered for above criteria, and for this, the bidder should submit the self –declaration countersigned by CA as per clause 1.1 above regarding non-availability of audited balance sheet for FY 2019-20.</p> <p>Net worth means the sum total of paid-up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets.</p>	<p>audited balance sheet for FY 2019-20 is not available, net-worth as per audited balance sheet of previous three years i.e. 2016-17, 2017-18 and 2018-19 should be considered for above criteria, and for this, the bidder should submit the self –declaration countersigned by CA above regarding non-availability of audited balance sheet for FY 2019-20.</p>
1.3	<p>(a) The sole bidder/the lead partner of Joint Venture (JV)/consortium producing MAAT should have discharged all its payment obligations (principal/interest) on outstanding debentures (i.e. debentures which have not yet been redeemed), if any, and no such payment as on 30.09.2020 should be outstanding/overdue.</p> <p>(b)_The sole bidder/the partner of Joint Venture (JV)/consortium producing MAAT should not be presently in default in default in payment of any bank loan, or interest thereon for more than three months or any loan account of the bidder should have been classified as NPA (Non performing assets) by the creditor/leading bank as on date of issue of NIT.</p>	<p>The sole bidder/the lead partner of Joint Venture (JV)/consortium producing MAAT shall give following Self attested undertaking duly certified by CA that:-</p> <p>(a)All payment obligations (principal/Interest) on outstanding debentures (i.e. debentures which have not yet been redeemed) have been discharged and no such payment as on 30.09.2020 is outstanding / overdue.</p> <p>(b) The bidding company is presently not in default in payment of any blank loan/interest for more than three months or any loan account of the bidder has not been classified as NPA (Non performing assets) by the creditor/lending bank as on date of issue of NIT.</p>
C	Other Requirement :	
1.1	The bidder (both the partners in case of the consortium / joint venture) should not be debarred/black-listed by Bank / State Govt. / Central Govt./ State PSU/CPSU/SEB/Public utility as on the date of issue of NIT.	A declaration by the bidder (both the partners in case of the consortium / joint venture) that the bidder is not debarred/black-listed by Bank/State Govt./Central Govt./State PSU/CPSU/SEB/Public utility as on the date of issue of NIT.
1.2	All the documents/ statements/ attachments / information submitted by the bidder (both the partners in case of the consortium / joint venture) in proof of the qualifying requirements must be authentic / genuine?/ correct and in case, any of the said documents/statement/attachments/information are found to be false / fake / misleading the bidder will be disqualified & debarred.	A declaration shall be submitted by the bidder (both the partners in case of the consortium / joint venture) that all the documents / statements / attachments / information submitted by the bidder in proof of the qualifying requirements are authentic/genuine/correct and in case, any of the said documents/statements / attachments information are found to be false/fake/misleading, the bidder will be disqualified.
1.3	Any sums of money due to CSPTCL on the date of opening of tender should have been paid/settled in	A declaration by the bidder (both the partners in case of the consortium / joint venture) that –

	full prior to the date of opening of tender. Price bids of bidders not complying with the requirement shall not be opened.” A declaration in this regard shall be furnished by the bidder(both the partners in case of the consortium / joint venture).	Any sums of money due to CSPTCL on the date of opening of tender have been paid/settled in full prior to the date of opening of tender.
1.4	The bidder (lead partner in case of the consortium / joint venture) shall have to submit pre-contract integrity pact.	The bidder (lead partner in case of the consortium / joint venture) shall have to submit pre-contract integrity pact in the format enclosed as Annexure -I on non-judicial stamp paper worth Rs.300/- duly signed by the bidder along with the Techno-Commercial bid. The validity of this integrity pact shall be from the date of its signing and extended up to 02 years or the complete execution of the order to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later. In case Bidder is unsuccessful, this Integrity Pact shall expire after six months from the date of its signing.
	<i>Note:- The bidder should submit the Self attested copies of documents in support of qualifying the Technical and Commercial requirement.</i>	

6. The Bidder shall furnish fully details of the head office, Manufacturing Unit, Service Centre of organization to successfully execute the supply as envisaged in this Tender Specification.
7. The bidder is requested to furnish their offer exactly in line with all our tender conditions. If the bidder does not fulfill our qualifying requirements mentioned above, their offer shall be treated as non-responsive offer. It may be noted that in case of any deviations CSPTCL reserves the right to reject the offers.
8. The prices offered should be valid for 180 days from due date of tender in **Indian Rupees** only. The prices quoted shall be **FIRM** only. No price variation shall be admissible.
9. **The rates quoted in the price bid (in e-Bidding module only) shall be taken as final. However, in case of any mistakes / errors found in calculation for arriving total value of contract, corrections shall be made for the purpose of computation to decide relative position of bidder. Whereas while placement of order the lowest rate shall be taken.**
10. It is not required to upload /attach scanned copy of price in soft/hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e- bidding portal). The prices should be quoted through SAP SRM system in unit price inclusive of packing & forwarding charges, freight charges & any other charges/taxes except GST. Applicable cess if any @ 1% of the cost shall be borne by the contractor and shall be deducted from each bill for remittance to the concerned government department.
11. It will be presumed that the bidder has taken utmost care while quoting unit rates and tax rates in the price bid, which shall be considered as base for computation of total prices. However, in case of any arithmetical mistakes/errors in calculation for arriving at total rate, arithmetic corrections

shall be made as per the quoted basic rate/ tax rate for the purpose of computation to decide the relative position of bidder. However, for placement of order lower of the two values will be considered.

12. The tender offers of those Bidders, who do not agree to CSPTCL's payments terms, security deposit clause, penalty clause, performance guarantee clause etc. shall be liable for rejection.
13. The tender document shall be available for sale in the Office of CE (S&P) on payment of the cost of tender document through demand draft on all working days up to one day prior to the due date of opening. The tender document shall also be displayed in CSPTCL's website i.e. www.cspsc.co.in and bidders may download the tenders from the website directly. In such case, the payment of cost of tender document shall be made through demand draft along with the tender. The details are given in clause No. 5 of Section-I (General Instruction to bidders).
14. The Company reserves the right to reject any or all tenders or accept any tender in full or part, considered advantageous to the C.S. Power Transmission Co. Ltd., whether, it is lowest or not without assigning any reason whatsoever.
15. **The bidder should ensure following points in order to avoid rejection of tender:-**
 - i) DD towards EMD is to be submitted in envelope –I. In case of non compliance of EMD, tender shall be liable for rejection.
 - ii) DD toward tender document cost, in case tender has been downloaded from our website, is also to be placed inside envelope-I. In case of non compliance of above instructions tender shall be liable for rejection.
 - iii) Techno-Commercial Bid is to be submitted inside envelope II. Envelope I&II should be inside the envelope III.
16. **INTEGRITY PACT :-** The bidder shall have to submit pre-contract integrity pact in the format enclosed as Annexure -I on non-judicial stamp paper worth Rs.300/- duly signed by the bidder along with the Techno-Commercial bid. The validity of this integrity pact shall be from the date of its signing and extended up to 02 years or the complete execution of the order to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later. In case Bidder is unsuccessful, this Integrity Pact shall expire after six months from the date of its signing. Declaration in this regard shall be furnished by the bidder.
17. **'EXTREMELY IMPORTANT'- Bidders to note this to avoid rejection –**
 - i) **Attention of bidder is drawn to the fact that no additional/new documents will be allowed to be submitted after bid submission with only exception that clarifications/confirmations on the points which lack clarity after techno-commercial evaluation may be obtained. Bidders are therefore, requested to exercise utmost care to make sure that all the documents required as per eligibility criteria/PQR/techno-commercial requirements of the tender are submitted with their bid on or before the date of bid submission. The bid submission date is a cut-off date for submission of all the documents required as per tender conditions/requirements and the bidder must adhere to this deadline.**
 - ii) **It may also be noted that if a bidder has quoted 'NIL' deviation in the bid, this will have an overriding effect on any other conditions noted as deviations elsewhere in the bid and no correspondence will be made to withdraw such specific contradictory conditions".**

* * *

SECTION I (B)

GENERAL TERMS & CONDITIONS OF THE TENDER

GENERAL INSTRUCTIONS TO BIDDERS

1. SCOPE :-

The tender specifications shall cover supply of tendered items as per the technical specifications mentioned in Section-II of the tender document.

2.1 ACCEPTANCE OF OFFERS:-

While the Bidders may make all out efforts to offer for the complete scope of tender.

Bidders are advised to go through the contents of specific requirement for standard conditions very carefully and in absence of non-compliance/lapse, responsibility for the same will rest on Bidders.

2.2 CRITERIA FOR PLACEMENT OF ORDER: -

The entire tendered job for 400 KV S/s, Khedamara will be offered to L-1 bidder.

The following points will also be considered for placing the order:-

- (i) The competitive rates quoted by each Bidder: - The original ranking based on total rate offered.
- (ii) If L-1 rate is not considered to be reasonable, negotiation will be held with the L-1 bidder only.

3 Bidders are requested to go through our Technical requirement carefully and it may be noted that furnishing of all information as required in various schedules enclosed is a must. In case any of the schedule, duly filled in, is not found furnished as required in the Schedules /Annexure the tender will be treated as incomplete, and will be liable for rejection without any correspondence by the CSPTCL.

3.1 Extension Order: The CSPTCL reserves the right to place extension order for 50% of ordered amount of work within six months from date of order and accordingly offered prices should be taken into account for these requirements.

3.2 Price reduction clause:- In case a fresh tender is issued for the same item before completion of supply against extension order and lower rates are received in the fresh tender. The lower rates received in the fresh tender shall be applicable to the quantity of extension order balance to be supplied also.

4. OFFERS:-

The offer for the work is required to be submitted in duplicate in separate sealed envelopes for which following details may be noted:-

4.1 Part-I: EARNEST MONEY DEPOSIT:

Please note that techno-commercial bid of tender will not be opened if earnest money is not deposited in form of demand draft for the value mentioned in tender clause No. 3 of “SPECIAL INSTRUCTIONS TO BIDDERS” in the tender, unless exempted by the CSPTCL.

In case the bidder withdraws his offer during the validity period or after placement of order, the Earnest Money shall be forfeited. EMD of unsuccessful bidders shall be returned on placement of order. EMD of bidder on whom order is placed shall be returned on acceptance of security deposit. No interest shall be paid on the EMD amount.

4.2 Part - II (A):- TECHNICAL BID:

4.2.1 In this part of bid, Bidder will have to furnish confirmation in regard to all our Technical requirements. The bid should clearly describe various technical particulars, as per details given in this specification. Also along with above information all details required in various schedules should be furnished so that the purchaser may be able to examine whether the offer submitted is technically acceptable or not.

The bidder shall have to submit pre-contract integrity pact in the format enclosed as Annexure-I on non-judicial stamp paper worth Rs. 300/- duly signed by the bidder along with the Techno-Commercial bid.

4.2.2 COMPLETENESS OF WORK: -

The Bidders must furnish the following information along with technical bid.

- i) The responsibility for obtaining timely supplies of required items will rest on the Bidder and only on this basis, delivery period will be offered in the tender.
- ii) Any other negligence, replacement shall be arranged within one month's time. If this is not done, date of delivery of such accessory will be treated as date of delivery of main equipment and full penalty/liquidated damage shall be recoverable from the Bidder on total price excluding taxes.
- iii) For the work, responsibility for guarantee and obtaining immediate replacement in case any defects are noticed and in case defective supply/workmanship of any item is reported will rest on the Bidder.
- iv) In case for attending to defect in any item/material or inspection/replacement of the item/material, the same will be organized on immediate basis by the Bidder at his cost.

4.2.3 It would be obligatory on the part of Bidder to enclose a schedule of Technical deviation in ***Schedule VI-B*** in case there are any deviations from our technical requirement. Even if no deviations are involved, a separate schedule of deviation for technical particulars should be enclosed wherein a certificate may be recorded that there are no deviations from all our technical requirements. In the event of non-compliance of this instruction, it may be noted that the CSPTCL reserves the right to reject all such offers without assigning any reason or without making any correspondence for obtaining any clarification.

4.3 Part - II (B) COMMERCIAL BID:

This bid should clearly spell confirmation in regard to various commercial terms and conditions for supply. Basis of price, acceptance of various important terms and conditions for supply and questionnaire for commercial terms and conditions for supply duly filled in, will form part of commercial bid. All commercial schedules viz. commercial terms & conditions, commercial deviations, bidders experience, details plan of manufacturing & testing shall be furnished with this bid.

Un-priced bid in prescribed format shall be submitted along with TC bid.

It may please be noted that it is obligatory on the part of Bidder to comply with all our commercial terms and conditions . In particular, **specific confirmation towards acceptance of following commercial terms and conditions should be furnished in the tender.**

4.3.1 **PRICES & TAXES: -**

The prices offered should be valid for 180 days from due date of tender in Indian Rupees only. Quoted prices should be on the basis of firm rates.

It is not required to upload /attach scanned copy of price in soft copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e- bidding portal). The prices should be quoted through SAP SRM system in unit price inclusive of packing & forwarding charges, freight charges & any other charges/taxes except GST. Applicable cess if any @ 1% of the cost shall be borne by the contractor and shall be deducted from each bill for remittance to the concerned government department.

(i) GST and other levies in respect of supplies and services under the Contract, should be indicated separately in respective columns in the Price Bid Proposal Sheets. The ITC (Input tax credit) available to bidder should be duly considered while quoting the rate. **Any variation in tax rate during scheduled completion period will be on CSPTCL’s account.**

(ii) **Cess under “Building and other Construction Workers Welfare cess Act, 1996:-** The contractor for carrying out any construction work in Chhattisgarh State must get themselves registered under section 7 (1) of the “Building and Other Construction Workers Welfare Cess Act, 1996” and rules made thereunder by the Chhattisgarh Govt. and submit Certificate of Registration issued by the Registering Officer of the Chhattisgarh Government (Labour Department) for enforcement of the Act. The cess @ 1% on cost of supply of materials and construction charges shall be borne by the contractor and same shall be deducted from each bill. **Any variation in this respect within scheduled completion period shall be to the account of CSPTCL.**

If the rate of applicable cess beyond contractual completion period undergoes upward revision, the payment will continue to be made only on the basis of rates prevailing during completion period. In case the rate of cess undergoes downward revision then the delayed works beyond contractual completion period will attract reduced rate of cess.

(iii) **Payment of other taxes/charges which are not described above:-**The bidder should be aware of the various taxes, duties, levies imposed by the Central Government, State Government or Local Bodies applicable in this contract as on the date of TC bid opening. Further, in the price bid, it should be specifically stated regarding each tax whether it is inclusive or exclusive. However, if there is no specific mention of any duties/levies as exclusive in the price bid, it will be presumed to be inclusive if it is applicable as on the date of TC bid opening and will not be paid extra.

(iv) Any variation in statutory taxes, including due to amalgamation or restructuring of existing taxes whether upward or downward within stipulated completion period shall be in the account of CSPTCL.

Tax Beyond contractual completion period:- If the rate of applicable taxes / duties beyond contractual completion period undergoes upward revision, the payment will continue to be made only on the basis of rates prevailing during scheduled completion period. In case the rate of

statutory levies/ taxes undergoes downward revision then the delayed supplies/ work performed beyond contractual completion period will attract reduced rate of taxes/duties.

(v) **Any other new tax:** - But if any new tax/ duty/ levy is imposed either by central Government or by Stat Govt. / local authorities after the date of opening of T.C. Bid, the same shall be payable by CSPTCL extra within stipulated completion period on production of documentary evidence. However, tax due to increase of Turnover or withdrawal of tax exemption earlier available to the vendor etc. will not be reimbursed.

vi) The contractor shall be solely responsible for payment of all taxes, duties, license fee etc. if any, for all materials covered under this contract to the concerned authority as may be applicable from time to time.

4.3.2 TERMS OF PAYMENT:

The terms of payment for Supply, Installation, Commissioning and Demonstration cum training of equipment of material against this bid shall be as under: -

(a) Payment of ordered amount towards supply of Equipment

70% Payment of ordered amount after supply of complete equipments/material:
70% payment including freight, taxes and duty shall be released after delivery of equipment with all accessories at site on submission of invoices along with all relevant documents to OIC of the work, normally on completion of 30 days period from the date of submission of invoices along-with all documents.

(b) Balance 30% payment of ordered amount after successful Installation, Commissioning and Demonstration of equipment and training of CSPTCL personal:

Balance 30% payment of ordered amount shall be released after submission of invoice along-with certificate towards successful Installation, Commissioning and Demonstration of equipment and training of CSPTCL personal in **Proforma II** normally on completion of 30 days from the date of submission of invoices along-with all documents.

4.3.3 COMPLETION PERIOD:

The work should be completed within **Three (3) months** from date of approval of drawing. The site will be handed over to the firm within 7 days from the date of drawing approval.

The drawings should be submitted in three set within 15 days from date of issue of order. The time for and date of delivery of the stores stipulated in the order shall be deemed to be the essence of the contract. In case of delay in execution of the order, the CSPTCL shall either:-

- (i) Recover from the supplier as agreed Penalty/liquidated damages at the rate mentioned in "Liquidated damage" clause.
- (ii) Purchase elsewhere on account and at the risk of the supplier, the stores not delivered or other of similar description or;
- (iii) Cancel the contract."

4.3.4 **LIQUIDATED DAMAGE:**

The time for and the date of execution of work stipulated in the order shall be deemed the essence of the contract. In case of delay in execution or non-execution of the order, the CSPTCL at its option shall recover from the supplier/contractor as agreed towards liquidated damages a sum of ½ % per week of the total contract price **excluding taxes per week or part thereof up to a maximum of 5% of contract value excluding taxes.**

4.3.5 (A) **GUARANTEE PERIOD/PERFORMANCE GUARANTEE:**

The work done, material supplied by the contractor as per the contract specification shall be guaranteed for performance and quality for a period of 24 months from date of successful completion of work.

In case any defect in the equipment/material or workmanship is found within guarantee period, the same will be replaced /repaired/rectified by the firm on free of cost basis. The replacement/repairing/rectification will have to be organized by you expeditiously and in any case within one month's time.

If for the purpose of replacement/repairs, the equipment/material is required to be dispatched to your works, all charges towards transportation/insurance/ packing/ forwarding will have to be paid by the firm for to and fro dispatches. In this connection, please note that the following additional conditions will also be applicable in case any damages/defects are noticed in the equipments or its accessories supplied by you.

- (i) If the material develops defect within guarantee period after installation at site, for the purpose of replacement/repairs & if the same is dismantled and taken out by us. In such cases actual cost of dismantling and replacement of the equipment/material will also be recoverable from you.
- (ii) In case it is observed that replacement/repairs of equipments or its accessories is not being provided to us within one month time from date of report of defect to you and proper response is not received from you, then apart from operating clause of liquidated damage (which provides for imposition of penalty/liquidated damages, risk purchase at your cost and cancellation of contract) the CSPTCL may also take suitable penal action against you which may include debarring you from all future business with the CSPTCL for a period which will be at the discretion of the CSPTCL.
- (iii) In case of replacement of material due to failure within guarantee period, the guarantee shall automatically get extended. In such case, the material shall be guaranteed as per the terms of guarantee with the commencement date of guarantee from the date on which replaced material has been received.
- (iv) The 24 months guarantee period as mentioned above shall also covers following to keep the material or workmanship in healthy and working condition;

Deputation of expert engineer at respective site in case if problem is noticed in the material immediately after receipt of message from site or head quarter offices.

4.3.5 (B) REPLACEMENT OF DEFECTIVE SUPPLIES: -

- i. In case any defect in the equipment/material is found within guarantee period, the same will be replaced / repaired by the supplier on free of cost basis. The replacement / repairing will have to be organized by supplier expeditiously and preferably within one month's time from the date of intimation. It may please be noted that if repair/replacement of equipment/material is not organized **within 3 months** of notice of defects/failure being sent, CSPTCL shall recover the cost of such equipment from available payments/S.D. as the case may be without further notice and with such penalty as it may deem appropriate for non-compliance of contractual obligations.
- ii. All other conditions, as described under clause 4.3.5 (a), "Guarantee Period/Performance Guarantee" shall be applicable for the purpose of replacement of defective supplies.

4.3.6 AGREEMENT AND SECURITY DEPOSIT:

The successful contractor shall have to enter into an agreement with the Engineer in the approved contract agreement form within 15 days of the receipt of the individual work orders failing which the contract may be cancelled.

The supplier has to submit the security deposit in form of Demand Draft / Bank Guarantee for value of order as indicated below to cover performance guarantee period for supply of equipments covered in this specification.

The bidder shall be required to pay security deposit @10% of total order value.

The bank guarantee shall be submitted within 30 days from date of order and shall be kept valid for guarantee period exceeding claim period of 6 months. The bank guarantee shall be submitted on stamp paper worth Rs. 250/- or as per the prevailing legal requirements/ any other amount as per the C.G. State Stamp Duty Act and shall be from a Nationalized/ Scheduled Bank in the prescribed form of CSPTCL. No interest shall be paid by CSPTCL on the security deposit. In case of non-fulfillment of contractual obligations by the supplier the security deposit shall be forfeited.

4.3.7 TRANSIT INSURANCE & RISK:-

- a) Responsibility regarding covering of risk, during transit of material shall entirely be on the supplier. The CSPTCL, shall in any case, not bear the transit risk/transit insurance charges.
- b) Transit damages/ shortages/ losses shall be reported by the consignees within 30 days from the receipt of the consignments. Such damages/shortages/losses shall be repaired/replaced by the suppliers, free of cost within one month from the date of intimation by the consignee without awaiting for the settlement from carrier or insurance company etc. If the supplier fails to do so the consignee(s) shall be free to get the repair work done from other sources and they shall be free to recover the cost of such material/ expenses of repairs either from the supplier/balance bills or from the security deposit as deemed fit.
- c) While the necessary assistance shall be rendered by the consignee in lodging and processing the claims with carriers and the supplier's insurance underwriters, the responsibility shall rest with the supplier to immediately make good the shortages/ losses/ damages, without extra cost and without waiting for the settlement of the claim.
- d) Replacement of goods lost/ broken or damaged including loss to fire:- Notwithstanding anything herein contained, the supplier shall undertake responsibility for the safe arrival of the

material in good condition and without any loss or damage at the final destination and until the same is actually delivered to / received by the CSPTCL at its stores or other places of final destination. For this purpose, material carried by Railway or Road transport or other carriers shall be deemed to be so carried at the risk of the suppliers. In the case of transport damages/shortages, the payment shall be made only for the

quantity received in good and working condition and consignee shall lodge claim with the supplier/carrier with necessary documents of the same with carriers at supplier's end.

4.3.8 DEVIATIONS:-

It would be obligatory on the part of the Bidder to enclose a separate schedule of deviation, **if there are any deviations from our commercial terms/conditions. Even if no deviations are involved, a separate schedule of deviation for commercial conditions should be enclosed wherein a certificate may be recorded that there are no deviations from all our commercial conditions.** All tenders, wherein these conditions are not complied with, may run the risk of rejection without any correspondence from our side.

4.4 Part - III PRICE BID:-

Price bid shall include submission of details of prices as per Schedule-I. It is not required to upload /attach scanned copy of price in soft /hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e- bidding portal). The prices should be quoted through **SAP SRM system.** The prices should be quoted through SAP SRM system in unit price inclusive of packing & forwarding charges, freight charges & any other charges/taxes except GST. Applicable cess if any @ 1% of the cost shall be borne by the contractor and shall be deducted from each bill for remittance to the concerned government department.

However, the delivery schedule offered by bidder should be indicated in Part – II B “Commercial Bid”. In case of any discrepancy is found suitable loading on prices will be considered for which responsibility will rest on the Bidder.

5. SUBMISSION OF OFFERS:- The Bidders should submit their bids in three envelopes as under:-

- (i) **Envelope - I :-** (To contain Part-I of the tender document) This envelope should contain a covering letter with earnest money or earnest money exemption certificate as detailed in clause (4.1). The cover of the envelope should be suitably super scribed with the details of earnest money and tender number. The envelope should be sealed properly. **The bidder should furnish valid GST registration number & certificate alongwith EMD. In absence of GST registration the offer shall not be accepted.**

In case the tender document is downloaded from CSPTCL's Website the required cost of tender document in the form of MICR DD drawn in favour of Manager (RAO-HQ), CSPTCL, Raipur should also be kept inside this Envelope.

Please note that the tender shall be liable for rejection if

- i) EMD as per tender specification / proof in support of exemption of EMD as per clause 4.1 is not found inside the envelope
and
ii) In case DD towards tender cost is not found inside this envelope in case tender document is downloaded from website.

- (ii) **Envelope - II :-** (To contain Part-II of the tender document) This envelope should contain the Technical Bid and commercial bid complete in all respects along with **un-priced** bid, in duplicate & Integrity pact as per proforma in Annexure -I.
- (iii) **Envelope - III:** This large envelope should contain all the above two envelopes. A certificate in the following format should be recorded on main envelope itself.

**TENDER SPECIFICATION No.TR-20/S&P/25 DTD. 08.12.2020
DUE FOR OPENING ON DTD.29.12.2020**

For Providing, Fixing, Testing and Commissioning of Fire Protection system by dismantling of existing system at 400 KV S/s Khedamara .

THIS ENVELOPE CONTAINS TWO ENVELOPES FOR:-

1. Envelop-I- Part – I of tender document i.e. Earnest Money Deposit & cost of tender document, if downloaded.
2. Envelop-II- Part – II (A) i.e. Technical bid & Part– II (B) i.e. Commercial Bid & Integrity pact as per proforma in Annexure –I.

To,

**The Chief Engineer (S&P),
C.S. Power Transmission Co. Ltd.,
Danganiya, RAIPUR (C.G.) 492 013**

IT is certified that we agree to the following clauses of tender specification:-

1	Payment terms	Agreed
2	Security deposit	Agreed
3	LIQUIDATED DAMAGE	Agreed
4	Performance guarantee	Agreed
5	Technical specification	It is certified that the material offered by us is strictly as per technical specification as stipulated in this tender and in case any deviation is observed later on, we shall be solely responsible and that our tender shall be liable for rejection.

Sign & Seal of Bidder

Tenders being submitted must be signed by a person holding a power of attorney authorizing him to do so. The **notarized copy of power of attorney** should be furnished. Tenders submitted on behalf of company registered under Indian Companies Act shall be signed by persons duly authorized to submit the tender on behalf of the company and shall be accompanied by notarized copy of resolution / abstract of Article of Association/ special or general power of attorney.

6. OPENING OF TENDERS:-

Part - I i.e. the envelop for Tender Cost (if downloaded) ,Earnest Money shall be first opened on the due date & time. **Part-II** i.e.“Technical & Commercial Bid” will be opened thereafter on the same day in respect of the bidders **EMD is found to be as per tender specification and tender cost is found to be as per tender**. These bids will be scrutinized and then we will take decision regarding opening of price bid in respect of successful Bidders. For the purpose of opening of price bid, a notice of not less than 7 days shall be given to the Bidders so that they may depute their representative for attending price bid opening. It may be mentioned that period of 7 days will be counted from the date of issue of fax intimation by us. Such intimation shall be given within a reasonable period from the date of opening of commercial and technical bids, and after its scrutiny. **Only authorized representatives possessing necessary authority letter from the Bidder shall be allowed to participate in the tender.**

7. COMPLIANCE WITH OTHER CONDITIONS :-

Although all other conditions have clearly been spelt out in the tender document, it is once again brought to the notice of Bidder that they should go through our tender document carefully and comply all other conditions also, like furnishing of type test report, furnishing of list of past supplies, performance certificate, profit and loss account, balance sheet for last three years etc., furnishing of drawing and write up for the manufacturing process. In the nut shell, the offer at the time of submission of Technical and Commercial bid itself should be complete in all respects. It should not be expected that in case of lack of any information, the CSPTCL will make any correspondence with the Bidder. The documents and details as called for in the tender must be submitted without making any reference to submission of such certificate against past order, tender or past experience of supplies with the Board/CSPTCL etc. All tenders wherein these conditions are not complied with may run the risk of rejection without correspondence from our side.

8. CHANGE OF QUANTITY:-

The purchaser reserves the right to vary the quantities of any or all the items as specified in the technical specifications/schedules as may be necessary based on requirement. No correspondence shall be entered into regarding quantity variation.

9. INSPECTION:-

- a) The acceptance of quantity of item/material shall be done OIC of the work at site and it will be his/her responsibility for assuring that the material is meeting all the requirements of the specification and shall not prevent subsequent rejection if such material are later found to be defective.
- b) The acceptance of any quantity of item/material shall in no way relieve the successful supplier from his responsibility for meeting all the requirements of this specification and shall not prevent subsequent rejection if such equipment are later found to be defective.

10. POOL RATE/CARTEL:

Formation of bidder's cartel is strictly prohibited. "Cartel" includes an association of sellers, distributors, traders or service providers who by agreement amongst themselves, limit, control or attempt to control the production, distribution, sale or price of or trade in goods or provision of services, Here, "agreement" includes any arrangement or understanding or action, whether or not is formal or in writing.

Quoting same rates i.e. pool rate is not acceptable. In case the same rate is found to be quoted by more than two bidders, offers of all such bidders shall be out rightly rejected. However, if rates of two bidders are found to be same, quantity of orders to be placed on them will be reduced to half of the quantity a bidder is entitled to be allocated by virtue of their common rank. But, in case of multi-item tender, if rates of even two bidders for more than one item are found to be same, it will be considered as deliberate cartel and offers of both the bidders shall be rejected. Accordingly, all the bidders are advised to quote their own individual and most competitive rates.

Rated received in a tender will be minutely scrutinized to find out as to whether some or all bidders have entered in to any such agreement. If CSPTCL is satisfied with the conclusion that some or all the bidders have formed a cartel, offers of all such bidders shall be rejected.

11. **Amendment in specifications:** CSPTCL may revise or amend the specification or drawing, prior to the date notified for opening of tender. Such revision/ amendment, if any, will be communicated to all the bidders as amendment/ addendum to the invitation of tender and the same will be displayed in CSPTCL's website also.
12. **Telex/ telegraphic/ fax bids:** Telex/ telegraphic/ fax offers will not be considered under any circumstances.
13. **Mistakes in bids:** Rates should be quoted in both figures and words. In case of ambiguity between rates in figures and words, lower of the two shall be considered, as per provision given in clause 7 of Special Instruction to the bidder. Such offers can also be rejected.
14. **Lump sum based bids:** In case prices for some items or all items are given as lump sum, instead of unit prices as required in the tender specifications, CSPTCL can summarily reject such incomplete tender.
15. **Printed terms & conditions in bids:** Supplier's printed terms and conditions will not be considered as forming part tender under any circumstance whatsoever.
16. **Alterations/ correction in bids:** No alternations in the tender document will be permitted.
17. **Incomplete bids:** Tender which is incomplete or obscure is liable for rejection.
18. **Ambiguities in conditions of bids:** In case of ambiguous or self contradictory terms/ conditions mentioned in the bid, interpretations as may be advantageous to the CSPTCL may be taken without any reference to the tender.
19. **Disqualification of bids:** A bid which gets opened before the due date as a result of improper or no indication has been given on the cover to indicate that it is a tender, will be disqualified. Bidders will not be permitted to change the substance of his tender on post interpretation/ improper understanding grounds. This includes post tender price changes/ modifications etc. after opening of price bid. In such events, otherwise, that is, when a bidder does not comply, tender will be rejected.
20. **Language of bids:** All tenders should be made either in English or in Hindi only.
21. **Canvassing of bids:** Tenders shall be deemed to be under consideration, after opening of tender/ bid till placement of order. During this period, the bidders or their authorized representatives or

other interested parties are advised strongly in their own interest, to refrain from contacting by any means any of the CSPTCL's personnel or representative.

22. Cancellation of order:

25.1 The company may upon written notice of default, terminate contract in the circumstances detailed here under:

- a) If in the opinion of the Company, the firm fails to complete the work within the time specified or during the period for which extension has been granted by the Company.
- b) If in the opinion of the Company, the firm fails to comply with any of the other provisions of this contract or material is found not in accordance with prescribed specifications.
- c) If it is revealed that material and / or workmanship is substandard, which is likely to affect the performance of the finished product, a notice would be served by the Company to the firm to suspend further activities and to take urgent steps towards corrective measures, failing which the entire order would be cancelled.

25.2 In the event of such termination, the CSPTCL shall exercise its discretionary power as:

- (a) To recover from the firm the agreed liquidated damages as given in the clause No. 4.3.4 above.

Or

- (b) To execute the work elsewhere after giving due notice to the firm on account and at the risk of the firm such work not completed.

Or

- (a) To cancel the contract reserving Company right to recover damages.

26. Arbitration:

If at any time, any question, dispute or difference, whatsoever shall arise between the Purchase and the supplier, upon or in relation to or in connection with the Contract, either party may forth with give to the other, notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by the Purchase and the other to be nominated by the supplier or in the case of said arbitrators not agreeing, then to the adjudication of the Umpire to be appointed by the arbitrators, whose decision shall be final and binding on the parties and the provisions of the Indian Arbitration Reconciliation Act 1996, and of the rules there under and any statutory modification thereof shall be deemed to apply. The arbitrators or the Umpire, as the case may be, are bound to give a detailed speaking award assigning reasons for the findings.

Supplies under the contract shall be continued by the Contractor during the arbitration proceedings, unless otherwise, directed in writing by the Purchase or unless the matter is such that the work cannot possibly be continued until the decision of the arbitrators or of the Umpire, as the case may be is issued.

27. **Jurisdiction:** Any dispute or difference, arising under, out of or about this tender/ contract order shall be subject to exclusive jurisdiction of competent court at Raipur only.

28. **Limitation of Liability:** - Except in cases of gross negligence or wilful misconduct,

- a) The contractor and CSPTCL shall not be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the contractor to pay liquidated damages to the CSPTCL

AND

- b) The aggregate liability of the contractor to CSPTCL, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective material/workmanship, or to any obligation of the contractor to indemnify CSPTCL with respect to patent infringement.

29. COMPLETENESS OF WORK: -

The work shall be complete in every respect with all minor fittings, solid chemical and accessories etc. even though those may not be specifically mentioned in the Company's specification or the bidders offer. The bidder shall not be eligible for any extra price in respect of such minor fitting and accessories which can be considered as an essential part of the basic Equipment/Material even though not specifically mentioned in the specification or the offer.

If any minor accessory and quantity of solid chemical has not been stipulated but is essentially required for satisfactory operation of the system, the same shall be deemed to have been included in the prices and shall be supplied by the successful bidder without any extra cost. **An undertaking will also be required to be given as per Proforma-I enclosed in this respect.**

30. TRAINING: -

It may be noted that free training facility will have to be provided to our Engineers/ Technicians at Khedamara. During the period of training, our staff/ officers will be trained in operating system of fire fighting system. This facility will have to be provided on "Free of Cost" basis, although necessary accommodation and boarding charges and to and fro fare charges for our personnel to manufacturer works will be to our account.

**CHIEF ENGINEER(S&P)
CSPTCL: Raipur**

SECTION II

TECHNICAL SPECIFICATIONS FOR PROVIDING, FIXING, TESTING AND COMMISSIONING OF FIRE PROTECTION SYSTEM BY DISMANTLING OF EXISTING SYSTEM AT 400 KV S/S KHEDAMARA

Fire Fighting System

The 400 KVA Khedamara substation is situated at Khedamara, Bhilai, Chhattisgarh. This is basically step down transmission substation which delivers bulk power from power station to Load center and large industrial customers.

The complete active and passive Fire fighting/ protection/ detection system for transformer shall be required for the 400 KVA Sub-station that includes Transformers, Oil Tank Area and should be protected by spray system, Wheeled Water Mist System & Fire Barrier on transformer and transformer control cables .

The material /equipment should comply the relevant IS.

IS: 9137 - Code for acceptance test for centrifugal & axial pumps
IS: 5120 Technical requirement – Roto dynamic special purpose pumps

DIESEL ENGINES

IS:10000 Methods of tests for internal combustion engines.
IS:10000 Specification for performance requirements for
Constant speed compression ignition engines

BS: 55 14 The performance of reciprocating compression
ignition (Diesel) engines, utilising liquid fuel only.
ISO:3046 Reciprocating internal combustion engines
IS:554 Dimensions for pipe threads where pressure
tight joints are required on threads

PIPING VALVES & SPECIALITIES

IS:636 Non percolating flexible fire fighting delivehose
IS:638 Sheet rubber jointing.
IS:778 Gun metal gate, globe and check valves.
IS:780 Sluice valves for water works purposes.
IS: 901 Couplings, double male and double female
instantaneous pattern for fire fighting

IS:902 Suction hose couplings for fire fighting purposes
→ Fire hose delivery couplings branch pipe nozzles.
→ Cast iron fittings for pressure pipes for water.
→ Ball valve (horizontal plunger type)

IS: 1248	Indicating instruments
IS:375	Auxiliary wiring & bus bar markings
IS:2147	Degree of protection
NFPA-13	Standard for the installation of sprinkler system. Standard for water spray fixed system for the fire protection Standard for Halong 1301 Fire Extinguishing System Standard on Automatic Fire Detectors

Fire Protection Manual by TAC (Latest Edition)

NFPA-12	Standard on Carbon dioxide extinguishersystems
IS: 3034	Fire of Electrical distributing stations.
15-1363	Hexagonal head bolts, screws & nuts ofproducts grade C.
15-1364	Hexagon headbolts, screws and nuts.
15-1367	Technical supply condition for threaded steel fastner.
15-1599	Methods for bend test.
I5- 1608	Method for tensile testing of steel products.
I5- 1893	Criteria for earthquake resistant design.
15-1978	Line Pipe.
15-2062	steel for general structural purposes.
15-2595	Code of practice for Radiographic testing.
15-3063	Single coil rectangular section spring washers.
IS-7205	Safety code for erection of structural steelwork.
IS-9595	Recommendations for metal arc welding
ANSI-B18.2.1	Inch series square and Hexagonal bolts andscrews
ANSI-B18.2.2	Square and hexagonal nuts
ANSI-G8.14	Round head bolts

Piping and pressure vessels

IS-1239	Mild steel tubes, tubular and other wrought steelfitting.
IS-6392	Steel pipe flanges

Other civil works standards

IS-269	33 grade ordinary portland cement.
IS2721	Galvanized steel chain link fence fabric
IS-278	Galvanized steel barbed wire for fencing.
IS-383	Coarse and fine aggregates. Mild steel and medium tensile steel bars. Code of practice for plainand reinforcedconcrete. Method of test for strength of concrete. Code of practice for general construction in steel. Steel tubes for structural purposes. Basic requirements for water supply & drainage. Methods of sampling and analysis of concrete. Hard-dawn steel wire fabric for concrete.

IS-2514	Concrete vibrating tables.
IS-2645	Integral cement waterproofing compounds.
IS-4990	Plywood for concrete shuttering work.
IS-5600	Sewage and drainage pumps.

Conduits, Accessories and Junction Boxes

IS:9537	Rigid steel conduits for electrical wiring
IS:3480	Flexible steel conduits for electrical wiring
IS:2667	Fittings for rigid steel conduits for electrical wiring
IS:3837	Accessories for rigid steel conduits for electrical wiring.
IS:4649	Adaptors for flexible steel conduits.
IS:5 133	Steel and Cast Iron Boxes
IS:2629	Hot dip galvanising of Iron & Steel.

Electrical Installation

IS: 1293	3 pin plug
IS:371	Two to three ceiling roses
IS:3854	Switches for domestic and similar purposes
IS:5216	Guide for safety procedures electrical work.
IS:732	Code of practice for electrical wiring installation
IS:3043	Code of practice for earthing.
IS:3646	Code of practice of interior illumination part II & III.
IS:5571	Guide for selection of electrical equipment
IS:800	Code of practice for use of structural steel in general.
IS:8623	Specification for low voltage switch gear
IS:13947	Specification for low voltage switchgear and gears
IS: 13947	Specification for low voltage switchgear and control gears.
IS:13947	Specification for low voltage switch gear
IS: 13947	Specification for low voltage switch gear
IS:13947	Specification for low voltage switch gear
IS: 12063	Degree of protection provided by enclosures
IS:2705	Current Transformers
IS:3 156	Voltage Transformers
IS:323 1	Electrical relays for power system protection
IS: 1248	Electrical indicating instruments
IS:722	AC Electricity meters
IS:5578	Guide for Marking of insulated conductors of apparatus terminal.

TECHNICAL SPECIFICATION FOR FIRE PROTECTION SYSTEM

This fire protection System shall be provided for 400/220 KV Sub-station Khedamara.

1.00.00 INTENT OF SPECIFICATION

This section covers the design and performance requirements of the following types of fire protection systems;

- a. Hydrant System
- b. High Velocity Water (H.V.W) Spray System
- c. Fire Detection System
- d. Fire barrier for transformer control cable
- e. Wheeled water mist system for transformer control cable.
- f. Mobile foam generator for transformer oil tank.

1.00.01 It is not the intent to completely specify all details of design and construction. Nevertheless, the system design and equipment shall conform in all respects to high standard of engineering, design and workmanship and shall be capable of performing in continuous commercial operation in a manner acceptable to the Owner. The system design shall also conform to TAC/ NFPA norms.

1.00.02 The scope of work includes construction of trenches for housing of pipes , complete earthwork (i.e. excavation, backfilling etc.) for the buried section of piping for the system, valve pits and pipe supports for buried, entrenched and overground piping.

1.00.03 The equipment offered shall comply with the relevant Indian Standards. The equipment conforming to any other approved international standards shall meet the requirement called for in the latest revision of relevant Indian Standard or shall be superior.

1.00.04 Ambient temperature for design of all equipment shall be considered as 50°C.

1.00.05 The drawing enclosed herewith are only indicative and give guideline for the design of the system layout of equipment and other relevant data for the purpose of estimation.

1.00.06 It is the responsibility of tenderer to visit, the site and get fully acquainted with the existing system and the requirement for the successful operation of the fire fighting and fire suppression system.

SCOPE /GENERAL

This specification provides replacement of water spray system for fire fighting (protection) (3X105 MVA) ICT-I &II (7 Unit)& ICT-III (1 Unit) under PSDF scheme. It includes overall concept including design basis, water requirements and pump selection etc. of safety system being provided inside power Sub-station. The equipment, material and services to be furnished by the Bidder shall include but not limited to following:

- 1.** Automation of Fire water Pump House equipment, spray Systems and other systems / Pumps.
- 2.** New Supply, laying foundations & E, T&C of all fire water pumps.
- 3.** Automatic Addressable Water spray system (HVWS) of following transformer, above/below Deluge valve,

i) 08 Nos. ICT (400KV)

- 4.** Discharge header of the existing fire pump house.
- 5.** Complete piping, valves, NRV's, Electrical, C&I and associated civil works.
- 6.** All pipe mains/ pipelines shall be routed over ground on RCC pedestals / pipe rake. In main plant areas, pipelines may be routed in RCC trenches with removable covers. The pipelines routed in RCC trenches shall be provided with coating and wrapping and trench be filled up with sand as per TAC requirements. Road or pipe trench crossing be through RCC Hume pipes of appropriate pressure class and the pipelines shall be provided with coating and wrapping as per specification.
- 7.** Permanent Building for Fire control room, Spray system comprising of required number of spray pumps pressurization arrangements, water mains network, deluge valves, isolation valves, Y-type strainers, spray nozzles/projectors, spray nozzles piping network, detection system, instrumentation, junction boxes, cables etc.
- 8.** Microprocessor based Fire detection and alarm system complete with detectors, alarm panel, repeater panel and cables.
 - (a) Annunciation panels in control Rooms.
 - (b) Repeater Panel in Fire Control Rooms.
- 9.** Complete Fire water pumps are to be supplied as per the final system design.
- 10.** Audible and visual alarm annunciation devices per applicable codes and standards.
- 11.** Earthing at two points.
- 12.** Cables and cabling up-to local and remote control panel included in scope. The cables and cabling work shall be in line with the relevant sections of the electrical specification
- 13.** Lubricant, diesel and all consumable till handing over of the Sub-station.
- 14.** All equipment and components should be FM/UL/TAC/ISI approved.
- 15.** Tools and tackles for erection and future maintenance.
- 16.** Start up & commissioning spares.
- 17.** Mandatory spares.
- 18.** Each system under these specification along with new supplies shall be covered under Guaranty/Warranty for a minimum period of 12 Months.
- 19.** Annual Maintenance Contract for the 02 (Two) years complete with supply of materials, Consumables & Man Power etc,(AMC shall be applicable after expiry/completion of successful warranty period).
- 20.** Erection, testing, commissioning & handing over.Associated, civil/electrical works complete along-with supply of materials as well as restoration of work at site as per the instructions of "Officer In-Charge".
- 21.** Drainage Systems including Dewatering Pumps, if any.
- 22.** Diesel engines shall be provided with batteries (2x100%) and battery chargers (2x100%). Battery of the diesel engine shall be lead acid type and shall be large enough to crank the engine twelve times successively, each for duration of 10 sec. without any charging in between.
- 23.** The items, not specifically mentioned but needed to make the system complete and acceptable shall also be furnished and erected at no extra cost to purchaser unless otherwise specifically excluded.
- 24.** Scope of work shall also include training of purchaser's personnel for the operation and maintenance of the complete system as per specification.

The safety system means mainly the fire protection, fire suppression & detection systems including alarm and detection systems to control any out break of fire in the area, in line with the prevailing TAC norms IS/EN and NFPA requirements.

The Fire safety systems shall be designed considering that necessary pressure criteria shall be available at all top elevated points & accordingly the main existing pump will cater the entire water requirement for the areas to be protected as per the specification (Only the tapping points for air & water will be intimated by the purchaser all necessary arrangements required for pressure building as per system requirement of TAC along-with piping, pumps, reducer/expander etc is in the Bidders scope.

2.DESIGN AND CONSTRUCTION

2.1 CIVIL WORKS AS PER FINAL SYSTEM DESIGN(Bidders scope)

- A. Permanent water storage tank only for fire fighting, permanent building for fire control panel for PLC panels, Microprocessor.
- B. Excavation, preparation of bed and backfilling with compaction for laying underground pipelines as required.
- C. RCC valve chambers as required.
- D. Pedestal type concrete supports for the buried pipe at various points as necessary depending on the earth condition.
- E. Hume pipes for buried piping and cables at all rail and road crossing and also in the areas where bulldozer will move.
- F. Steel structures, auxiliary steel members, structural, shoe clamp etc. as required for supporting of over-ground piping, cable trays, racks, cable shafts etc. as well as for equipment mounting.
- G. Foundation, bolts, nuts, gaskets, inserts, anchor, fasteners, packings, pipe hangers, support/thrust block etc. as needed for complete erection and commissioning of Jockey & for New Pump, if any.
- H. Civil works for cable trenches, cable supports, cable racks etc. wherever it is not possible to lay cables on existing cable trays or wherever cable trays are not available shall be included, for the instant tender works.
- I. Civil works for foundation/cutouts for PMCCs, control panels, pump-motors set, LDB's and other electrical equipments shall also be in the bidder's scope.
- J. Construction of Deluge Valve Chambers.
- K. Dismantling and restoration of the work site as required as per the instruction of Engineer In charge at Site.
- L. Re-routing of drains, roads, culverts etc, if required.
- M. Construction of fire barrier on transformer control cables.
- N. Permanent shed for deluge valve and control panel shall be constructed to prevent it from extreme sunlight and rainwater.
- O. All the required material other than the aforesaid scope for the successful operation of the system is in bidder's scope.

Note : The quoted rate should cover all the necessary construction work and material for the successful operation of system.

2.02.00 Hydrant System

Hydrant system of fire protection essentially consists of a large network of pipe, partly underground & majorly entrenched over ground which feeds pressurised water to a number of hydrant valves, indoor as well as outdoor. These hydrant valves are located at strategic locations near buildings, Transformers. Hose pipes of suitable length and fitted with standard accessories like branch pipes, nozzles etc., are kept in Hose boxes. In case of emergency, these hoses are coupled to the respective hydrant valves through instantaneous couplings and jet of water is directed on the equipment on fire. Hydrant protection shall be provided for the following in the substation.

- a) Fire Fighting pump House.
- b) Stores Room Area.
- c) Open store Area.

2.02.01 A warning plate shall be placed near the hydrant points for the transformers and the pump in substations to clearly indicate that water shall be sprayed only after ensuring that the power to the transformer which is on fire is switched off and there are no live parts within 20 metres of distance from the personnel using the hydrant.

2.02.02 Hoses, Nozzles, Branch pipes and Hose boxes

- (a) Hose pipes shall be of unlined flax canvas/reinforced rubber-lined canvas construction as per IS:4927/type A of IS:636 with nominal size of 63 MM (2 1/2") and lengths of 15 metre or 7.5 metre, as indicated elsewhere. All hoses shall be ISI marked.
- (b) Hosepipes shall be capable of withstanding an internal water pressure of not less than 35 kg/cm² without bursting. It must also withstand a working pressure of 8.5 kg/cm² without undue leakage or sweating.
- (c) Each hose shall be fitted with instantaneous spring lock type couplings at both ends. Hose shall be fixed to the coupling ends by copper rivets and the joint shall be reinforced by 1.5 mm galvanised mild steel wires and leather bands.
- (d) Branch pipes shall be constructed of copper and have rings of leaded tin bronze (as per IS:318 Grade-2) at both ends. One end of the branch pipe will receive the quick coupling while the nozzles will be fixed to the other end.
- (e) Nozzles shall be constructed of leaded tin bronze as per IS:318.
- (f) Suitable spanners of approved design shall be provided in adequate numbers for easy assembly and dismantling of various components like branch pipes, nozzles, quick coupling ends etc.
- (g) Hose pipes fitted with quick coupling ends, branch pipes, nozzles spanner etc. will be kept in a hose box, which will be located near point of use. The furnished design must meet the approval of Tariff Advisory Committee.

2.02.03 Fabrication &Erection

2.02.04 The contractor shall fabricate all the pipework strictly in accordance with the related approved drawings.

2.02.05 End Preparation

- (a) For steel pipes, end preparation for butt welding shall be done by machining.
- (b) Socket weld end preparation shall be sawing/machining.
- (c) For tees, laterals, mitre bends, and other irregular details cutting templates shall

be used for accurate cut.

2.02.06 **Pipe Joints**

- (a) In general, pipes having sizes over 25 mm shall be joined by butt welding. Pipes having 25 mm size or less shall be joined by socket welding/screwed connections. Galvanised pipes of all sizes shall have screwed joints. No welding shall be permitted on GI pipes. Screwed joints shall have tapered threads and shall be assured of leak tightness without using any sealing compound.
- (b) Flanged joints shall be used for connections to vessels, equipment, flanged valves and also on suitable straight lengths of pipe line of strategic points to facilitate erection & maintenance.

2.02.07 **OVERGROUND PIPING**

- (a) Piping to be laid overground & inside the trench shall be supported on pipe rack/supports. The trenches shall be of covered type. The trench/Rack/supports details shall have to be approved by Employer/Engineer. There shall be sufficient clearance inside the trench around the pipe to enable easy paint/maintenance work.
- (b) Surface of overground pipes shall be thoroughly cleaned of mill scale, rust etc. by wire brushing. Thereafter one (1) coat of red lead primer shall be applied. Finally two (2) coats of synthetic enamel paint of approved colour shall be applied.

2.02.08 **BURIED PIPE LINES**

- (a) Pipes to be buried underground shall be provided with protection against soil corrosion by coating and wrapping with two coats of coal tar hot enamel paint and two wraps of reinforced fibre glass tissue. The total thickness of coating and wrapping shall not be less than 3 mm. Alternatively corrosion resistant tapes can also be used for protection of pipes against corrosion.
- (b) Coating and wrapping shall be in line with IS:10221.
- (c) Buried pipelines shall be laid with the top of pipe one meter below ground level.
- (vi) At site, during erection, all coated and wrapped pipes shall be tested with an approved Holiday detector equipment with a positive signalling device to indicate any fault hole breaks or conductive particle in the protective coating.

2.02.09 **GENERAL INSTRUCTION FOR PIPING DESIGN AND CONSTRUCTION**

2.02.10 While erecting field run pipes, the contractor shall check, the accessibility of valves, instrument tapping points, and maintain minimum headroom requirement and other necessary clearance from the adjoining work areas.

2.02.11 Modification of prefabricated pipes, if any, shall have to be carried out by the contractor at no extra charge to the Employer.

2.02.12 **VALVES**

- (i) Air test shall be conducted to detect seat leakage.
- (ii) Visual check on the valve and simple operational test in which the valve will be operated

thrice from full open to full close condition.

(iii) No repair work on CI valve body, bonnet or wedge shall be allowed.

2.02.13 **STRAINERS**

- (i) Strainers shall be subjected to a hydrostatic test pressure of 1.5 times the design pressure or $10 \text{ kg/cm}^2\text{g}$ whichever is higher for a period of one hour.
- (ii) Pressure drop test on one strainer of each size/type shall be conducted.

2.02.14 **HYDRANT VALVES**

- (i) The stand post assembly along with the hydrant valve (valve being open and outlet closed) shall be pressure tested at a hydrostatic pressure of $21 \text{ kg/cm}^2\text{g}$ to detect any leakage through defects of casting.
- (ii) Flow test shall be conducted on the hydrant valves at a pressure of $7 \text{ kg/cm}^2\text{g}$ and the flow through the valve shall not be less than 900 litres/min.
- (iii) Leak tightness test of the valve seat shall be conducted at a hydrostatic test pressure of $14 \text{ kg/cm}^2\text{g}$.

2.02.15 **HOSES, NOZZLES, BRANCH PIPES AND HOSE BOXES**

Unlined flax/reinforced rubber-lined canvas hoses shall be tested hydrostatically. Following tests shall be included as per IS:4927/IS:636.

- a) Percolation test
- b) Pressure test at $21 \text{ kg/cm}^2\text{g}$
- c) Burst test at $32 \text{ kg/cm}^2\text{g}$ (minimum)

The branch pipe, coupling and nozzles shall be subjected to a hydrostatic test pressure of $21 \text{ kg/cm}^2\text{g}$ to detect any leakage through defects of casting. Dimensional checks shall be made on the hose boxes and nozzle spanners.

2.03.00. **HIGH VELOCITY WATER (H.V.W) SPRAY SYSTEM**

H.V.W. spray type fire protection essentially consists of a network of projectors and an array of heat detectors around the Transformer to be protected. On operation of one or more of heat detectors, Water under pressure is directed to the projector network through a Deluge valve from the pipe network laid for this system. This shall be provided for transformers in 400kV substation. Wet detection initiation system shall be employed for automatic operation.

The system shall be designed in such a way that the same can be extended to protect additional Transformer/ Reactor to be installed in future. However, for the purpose of design it shall be assumed that only one Transformer will be on fire. The system shall be designed to have a pressure of 5.5 kg/cm^2 at $350 \text{ m}^3/\text{hr}$. at the farthest transformer/reactor location.

The system shall be designed as per stipulations laid down in TAC manual for water spray system. In the absence of any clarity NFPA shall be used for detailed designing.

- 2.03.01 A number of risk areas viz. oil cooled large transformers, The water requirement for this system shall be that quantity which is necessary for protecting the single largest fire risk.

2.03.02 The water required for the water spray system shall be handled by separate existing pump sets. The pumps shall be horizontal centrifugal type and shall draw water from fire water storage tank(s).

2.03.03 For system design of HVW spray system followings shall be considered:

- a) System shall be pressurized continuously to normal working pressure up to deluge valves.
- b) The minimum running water pressure at any projector/spray nozzle in case of HVW spray system shall in no case be below $3.5 \text{ kg/cm}^2(\text{g})$.
- c) Minimum water pressure available at the farthest and/or highest projector (H.V.W spray system) on the equipment protected shall be $3.5 \text{ kg/cm}^2(\text{g})$. However, water pressure available at any projector shall not exceed $5.00 \text{ kg/cm}^2(\text{g})$. Water shall be applied at a rate of 10.2 LPM/M^2 of the surface area of the entire transformer including radiator, conservator, etc. (including bottom surface for transformer).
- d) Sprayers/ Projectors/ Nozzles shall be arranged in the form of a ring around all transformers and number of such rings/ tiers shall be decided considering maximum gap between two (2) consecutive tiers of rings shall be as per TAC. The distance of the deluge valves from the transformers shall be in line with TAC manual.
- e) No. of nozzles/ Sprayers/ Projectors for any particular risk shall be selected considering the characteristics of nozzles provided and also the density of water needed to protect completely the risk as specified above or in NFPA.
- f) Automatic operation of system shall be achieved by using deluge valves triggered by quartzoid bulb detectors on a pipe ring charged with water at fire mains pressure. Solenoid valve will be operated through DVLCP.
- g) An isolation valve shall be provided at each end, upstream and downstream, of each of the deluge valve. The size shall be same as the deluge valve.
- h) A Strainer ('Y' type) shall be provided upstream of deluge valve.
- i) Required Pressure gauges for each deluge valve as per scheme shall be provided.
- j) Pressure switches (PS) shall be provided in spray and detector piping to exhibit "FIRE" and "SPRAY ON" annunciation and for interlock as well. "FIRE" annunciation is given once PS will get the signal from various detectors from protected area when fire condition. "SPRAY ON" annunciation is given once deluge valve is actuated. Because of Interlocks two adjacent zones of fire affected zone will come in operation.
- k) All Spray pipe mains/ pipe lines shall be MS/CIDF/GI and to be routed underground as possible but cross over of pipe and in critical area pipes will be MS pipe and will be routed under ground with wrapping and coating. Road, Rail or pipe trenches crossing shall be through RCC hume pipes.
- l) Facility for manual initiation of deluge valves locally, through hand operations (manually by opening globe valve on trims) shall also be provided.
- m) Each of the outdoor deluge valves and its accessories shall be provided with housing.
- n) Automatic water spray system shall automatically detect, control and extinguish any out break of fire and simultaneously give audible alarm.

2.04.00 **DELUGE VALVE**

Deluge Valve shall be water pressure operated manual reset type. The Deluge valve shall be closed water tight when water pressure in the heat detector pipe work is healthy and the entire pipe work shall be charged with water under pressure up to the inlet of the Deluge valve. On fall

of water pressure due to opening of one or more heat detectors, the valve shall open and water shall rush to the spray water network through the open Deluge valve. The valves shall be manually reset to initial position after completion of operation. Each Deluge Valve shall be provided with a water motor gong which shall sound an alarm when water after passing through the Deluge valve, is tapped through the water motor.

Each Deluge valve shall be provided with a local panel which will enable manual electrical operation of the valve. In addition to this, each valve shall be provided with local operation latch.

2.05.00 **High Velocity Spray Nozzles (Projectors)**

High velocity spray system shall be designed and installed to discharge water in the form of a conical spray consisting of droplets of water travelling at high velocity, which shall strike the burning surface with sufficient impact to ensure the formation of an emulsion. At the same time the spray shall efficiently cut off oxygen supply and provide sufficient cooling.

2.05.01 Minimum set point of the heat detectors used in the HVW spray system shall be 79°C. The optimum rating shall, however, be selected by the Bidder, keeping in mind the maximum and minimum temperature attained at site.

2.05.02 High velocity water spray system shall be designed and installed to discharge water in the form of a conical spray consisting of droplets of water travelling at high velocity which shall strike the burning surface with sufficient impact to ensure the formation of an emulsion. At the same time the spray shall efficiently cut off oxygen supply and provide sufficient cooling. Integral non-ferrous strainers shall be provided in the projectors ahead of the orifice to arrest higher size particle, which are not allowed to pass through the projectors. Material of construction of projector shall be in line with TAC/NFPA requirement.

2.06.00 **SOLENOID VALVES**

2.06.01 The body of the valves shall be Forged brass or stainless steel.

2.06.02 The coil shall be continuous duty, epoxy moulded type Class-F, suitable for high temperature operation.

2.06.03 The enclosure shall be watertight, dust-tight and shall conform to NEMA-4 Standard OR EQUIVALENT.

2.06.04 The valves shall be suitable for mounting in any position.

2.07.00 **FIRE DETECTION AND ALARM SYSTEM**

The installation practices adopted for fire detection and alarm system shall comply with NFPA 72/ BS 5839 Part-I/IS 2189/EN 54.

Detectors shall be approved /listed by FM/UL/EN54/IS/VDS/LPCB standard.

OIL FILLED TRANSFORMERS (ABOVE 10 MVA RATING)

Quartzoid bulb detector shall be used to detect the fire in all various transformers under scope of protection.

2.08.00 Water Supply System

2.08.01 Water for hydrant & HVW system shall be supplied by one electrical motor driven pump with another pump, driven by diesel engine, shall be used as standby. Water storage tanks of total capacity as per final design shall be provided. Annunciations of the hydrant & HVW spray systems shall be provided in fire water pump house and repeated in 400 kV control room.

The outdoor piping for the system in general shall be laid above ground on concrete pedestals with proper clamping. However, at road/rail crossings, in front/access of buildings, places where movement of cranes/vehicles is expected and at any other place where above ground piping is not advisable, the pipes shall be laid underground as per standard and specification. Such locations shall be finalised during detailed engineering.

The whole system will be kept pressurised by providing combination of air vessel and jockey pumps.

Operation of all the pumps shall be automatic as well as perfect for manual operation and pumps shall be brought into operation at preset pressure. Fire pumps shall only be stopped manually. Manual start/stop provision shall be provided in local control panel.

2.08.02 The design and construction of horizontal centrifugal pumps along with drives and accessories shall be in line with the requirements of Tariff Advisory Committee of India.

2.08.03 The technical specification of the diesel engine driven fire pump and electric motor driven fire pumps shall be in accordance with final system design.

2.08.04 Each pump shall be provided with a nameplate indicating suction lift/delivery head, capacity and number of revolutions per minute.

2.08.05 Design, construction, erection, testing and trial operation of piping, valves, strainers, hydrant valves, deluge valve, hvws spray nozzle, hoses, nozzles, branch pipes, hose boxes, expansion joints etc shall be in accordance with the Indian/ international standard.

2.09.00 Instrumentation and Control System

2.09.01 All instruments like pressure indicators, differential pressure indicators, pressure switches, level indicators, level switches, temperature indicators, alarms and all other instruments and panels as indicated in the specification and drawings and those needed for safe and efficient operation of the whole system shall be furnished according final drawing. The control and monitoring of the fire protection system shall be integrated into substation automation system by providing sufficient number of bay control units.

2.09.02 **Control Panel**

- A. Power feeder for motors will be from switchgear board located in control building but control supply for all local control panels, annunciation panels, battery charger units, space heaters etc. shall be fed from the AC and DC distribution boards located in pump house. These AC & DC distribution boards will be fed from the switchgears and DCDBs located in control building.
- B. Individual local control panel is to be considered for each transformer deluge system wherever these equipment are envisaged. This panel shall contain push buttons with indicating lamps for spray ON/OFF operation in the valve operation circuit. Push buttons shall be concealed behind glass covers, which shall be broken to operate the buttons. Provision shall be made in the panel for the field signal for the annunciations such as spray ON and fire in the Transformer. A signal for spray ON shall also be provided in the control room fire alarm panel for employer's SAS/event logger.

2.10.00 **ANNUNCIATION PANELS**

a) **FIRE WATER PUMP HOUSE**

- i) Annunciation panel for fire water pump house shall be required as per the Indian/International standard.

b) **400 KV CONTROL ROOM**

- i) Annunciation panel for fire water pump house shall be required as per the Indian/International standard.

3.00.00 **HORIZONTAL CENTRIFUGAL PUMPS**

This clause covers the design, performance, manufacturing, construction features and testing of horizontal centrifugal pumps used for the purpose of fire fighting.

- 3.01.00 The materials of the various components shall conform to the applicable IS/BS/ASTM/DIN Standards or any other equivalent National or International standard.

1. **ELECTRIC MOTOR DRIVEN FIRE WATER PUMP**

Pump should start automatically under any of the following conditions:

- a) HVW spray or Hydrant system header pressure low.
- b) Operation of any deluge valve.

Pump should be stopped manually only. Pump should also be started manually if required from local control panel.

2. **DIESEL ENGINE DRIVEN STANDBY PUMP**

The pump should automatically start under any of the following conditions:

- a) Header pressure low.
- b) Electric motor operated fire water pump fails to start. Pump should be stopped manually only. Pump should also be started manually if required from the local control panel. The battery set which is connected for starting of Diesel engine shall not be subjected to boost charge.

3. **JOCKEY PUMP**

Jockey pump shall start automatically when water pressure in header falls below the set value. Jockey pump shall stop automatically when the pressure is restored to its normal value.

3.02.00 **GENERAL PERFORMANCE REQUIREMENTS**

- 3.02.01 The pump set shall be suitable for continuous operation at any point within the "Range of operation".
- 3.02.02 Pumps shall have a continuously rising head capacity characteristics from the specified duty point towards shut off point, the maximum being at shut off.
- 3.02.03 Pumps shall be capable of furnishing not less than 150% of rated capacity at a head of not less than 65% of the rated head. The shut off head shall not exceed 120% of rated head. Range of operation shall be 20% of rated flow to 150% of rated flow.
- 3.02.04 The pump-motor set shall be designed in such a way that there is no damage due to the reverse flow through the pump which may occur due to any maloperation of the system.
- 3.02.05 **DRIVE RATING**

The drive rating shall not be less than the maximum power requirement at any point within the "Range of Operation" specified where the supply frequency is 51.5 Hz (and the motor is running at 103% of its rated speed).

During starting under reverse flow condition, the motor shall be capable of bringing the pump to rated speed at normal direction with 90% rated voltage at motor terminals.
- 3.02.06 Pump set along with its drive shall run smooth without undue noise and vibration. Acceptable peak to peak vibration limits shall generally be guided by Hydraulic Institute Standards.
- 3.03.00 **DESIGN & CONSTRUCTION**
- 3.03.01 Pump casing may be axially or radially split. The casing shall be designed to withstand the maximum pressure developed by the pump at the pumping temperature.
- 3.03.02 Pump casing shall be provided with adequate number of vent and priming connections with valves, unless the pump is made self-venting & priming. Casing drain, as required, shall be provided complete with drain valves.
- 3.03.03 Under certain conditions, the pump casing nozzles will be subjected to

reactions from external piping. Pump design must ensure that the nozzles are capable of withstanding external reactions not less than those specified in API-610.

3.03.04 Pump shall preferably be of such construction that it is possible to service the internals of the pump without disturbing suction and discharge piping connections.

3.04.00 **IMPELLER**

The impeller shall be secured to the shaft and shall be retained against circumferential movement by keying, pinning or lock rings. On pumps with overhung shaft impellers shall be secured to the shaft by an additional locknut or cap screw. All screwed fasteners shall tighten in the direction of normal rotation.

3.05.00 **WEARING RINGS**

Replaceable type wearing rings shall be furnished to prevent damage to impeller and casing. Suitable method of locking the wearing ring shall be used.

3.06.00 **SHAFT**

Shaft size selected shall take into consideration the critical speed, which shall be at least 20% away from the operating speed. The critical speed shall also be at least 10% away from runaway speed.

3.07.00 **SHAFT SLEEVES**

Renewable type fine finished shaft sleeves shall be provided at the stuffing boxes/mechanical seals. Length of the shaft sleeves must extend beyond the outer faces of gland packing or seal and plate so as to distinguish between the leakage between shaft & shaft sleeve and that past the seals/gland.

3.08.00 Shaft sleeves shall be securely fastened to the shaft to prevent any leakage or loosening. Shaft and shaft sleeve assembly should ensure concentric rotation.

3.09.00 **BEARINGS**

Bearings and hydraulic devices (if provided for balancing axial thrust) of adequate design shall be furnished for taking the entire pump load arising from all probable conditions of continuous operation throughout its "Range of Operation" and also at the shut-off condition. The bearing shall be designed on the basis of 20,000 working hours minimum for the load corresponding to the duty point.

Bearings shall be easily accessible without disturbing the pump assembly.

A drain plug shall be provided at the bottom of each bearing housing.

3.10.00 **STUFFING BOXES**

Stuffing box design shall permit replacement of packing without removing any part other than the gland. Stuffing boxes shall be sealed/cooled by the fluid being pumped and necessary piping, fittings, valves, instruments, etc. shall form an integral part of the pump assembly.

3.11.00 **SHAFT COUPLINGS**

All shafts shall be connected with adequately sized flexible couplings of suitable design. Necessary guards shall be provided for the couplings.

3.12.00 **BASE PLATES & SOLE PLATE**

A common base plate mounting both for the pump and drive shall be furnished.

The base plate shall be of rigid construction, suitably ribbed and reinforced. Base plate and pump supports shall be so constructed and the pumping unit so mounted as to minimise misalignment caused by mechanical forces such as normal piping strain, hydraulic piping thrust etc. Suitable drain taps and drip lip shall be provided.

3.13.00 **BALANCING**

All rotating components shall be statically and dynamically balanced at shop.

4.00.00 **DIESEL ENGINES**

This Clause covers the design, performance, manufacturing construction features and testing of compression ignition diesel engines, used primarily for driving centrifugal pumps, used for the purpose of fire fighting.

4.01.00 **Design And Construction**

General

- 4.01.01 The diesel engine shall be of multi cylinder type four-stroke cycle with mechanical (airless) injection, cold starting type or as per the final system design.
- 4.01.02 The continuous engine brake horse power rating (after accounting for all auxiliary power consumption) at the site conditions shall be atleast 20% greater than the requirement at the duty point of pump at rated RPM and in no case, less than the maximum power requirement at any condition of operation of pump.
- 4.01.03 Reference conditions for rated output of engine shall be as per IS:10000, or ISO:3046.
- 4.01.04 The engine shall be designed with regard to ease of maintenance, repair, cleaning and inspection.

4.01.05 All parts subjected to substantial temperature changes shall be designed and supported to permit free expansion and contraction without resulting in leakage, harmful distortion or misalignment.

4.01.06 **STARTING**

The engine shall be capable of both automatic and manual start. The normal mode of starting is automatic but in the event of failure of automatic start or at the discretion of the operator, the engine can be started manually from the LCP.

Since the fire pumping unit driven by the diesel engine is not required to run continuously for long periods and the operation will not be frequent, special features shall be built into the engine to allow it to start within a very short period against full load even if it has remained idle for a considerable period.

4.01.07 If provision for manual start (cranking) is provided, all controls/ mechanisms, which have to be operated during the starting process, shall be within easy reach of the operator.

4.01.08 Automatic cranking shall be effected by a D.C. motor having high starting torque to overcome full engine compression. Starting power will be supplied from either of the sets of storage batteries. The automatic starting arrangement shall include a 'Repeat Start' feature. The battery capacity shall be adequate for 10 (ten) consecutive starts without recharging with a cold engine under full compression.

4.01.09 The batteries shall be used exclusively for starting the diesel engine and be kept charged all the time in position. Arrangement for both trickle and booster charge shall be provided.

Diesel engine shall be provided with two (2) battery charger units of air-cooled design. The charger unit shall be capable of charging one (1) set of battery at a time. Provision shall, however, be made so that any one of the charger units can be utilised for charging either of the two (2) batteries.

4.01.10 For detail design of battery and battery charger, sub- section Electrical may be referred to.

4.01.11 **GOVERNING SYSTEM :**

The engine shall be fitted with a speed control device, which will control the speed under all conditions of load.

4.01.12 The governor shall offer following features :

- a) Engine should be provided with an adjustable governor capable of regulating engine speed within 5% of its rated speed under any condition of load between shut-off and maximum load conditions of the pumps. The governor shall be set to maintain rated pump speed at maximum pump load.
- b) Engine shall be provided with an over speed shut- down device. It shall be arranged to shut-down the engine at a speed approximately 20% above rated engine speed and for manual reset, such that the automatic engine controller will continue to show an over

speed signal until the device is manually reset to normal operating position (Vol. II, NFPA, 1978).

4.01.13 The governor shall be suitable for operation without external power supply.

4.01.14 **FUEL SYSTEM**

The diesel engine will run on High Speed Diesel.

4.01.15 The engine shall be provided with fuel oil tank having adequate capacity to hold sufficient fuel oil for a minimum of ten(10) hours of full load run. The fuel oil tank shall preferably be mounted near the engine. No fuel oil tank will be provided by the Employer.

4.01.16 The fuel oil tank shall be of welded steel constructed to relevant standards for mild steel drums. The outlet of the tank shall be above the inlet of fuel injection pump of the diesel engine to ensure adequate pressure at suction of injection pump.

4.01.17 The fuel oil tank shall be designed in such a way that the sludge and sediment settles down to the tank bottom and is not carried to the injection pump. A small sump shall be provided and fitted with drain plug to take out sludge/sediment and to drain oil. Adequate hand holes (greater than 80 mm size) shall be provided to facilitate maintenance.

4.01.18 Pipeline carrying fuel oil shall be gradually sloped from the tank to

The injection pump. Any valve in the fuel feed pipe between the fuel tank and the engine shall be placed adjacent to the tank and it shall be locked in the open position. A filter shall be incorporated in this pipeline, in addition to other filters in the fuel oil system. Pipe joints shall not be soldered and plastic tubing shall not be used. Reinforced flexible pipes may also be used.

4.01.19 The complete fuel oil system shall be designed to avoid any air pocket in any part of the pipe work, fuel pump, sprayers/injectors, filter system etc. No air relief cock is permitted. However, where air relief is essential, plugs may be used.

4.01.20 A manual fuel pump shall be provided for priming and releasing of air from the fuel pipelines.

4.01.21 **LUBRICATING OIL SYSTEM**

Automatic pressure lubrication shall be provided by a pump driven by the crank shaft, taking suction from a sump and delivering pressurised oil through cooler and fine mesh filters to a main supply header fitted in the bed plate casing. High pressure oil shall be supplied to the main and big end bearings, cam-shaft bearings, cam-shaft chain and gear drives, governor, auxiliary drive gears etc. Valve gear shall be lubricated at reduced pressure through a reducing valve and the cams by an oil bath.

4.01.22 **COOLING WATER SYSTEM**

Direct cooling or heat exchanger type cooling system shall be employed for the diesel engine. Water shall be tapped from the fire pump discharge. This water shall be led through duplex strainer, pressure breakdown orifice and then after passing through the engine, the water at the outlet shall be taken directly to the sump through an elevated funnel.

5.00.00 **PIPING, VALVES AND SPECIALITIES**

This clause covers the design, manufacture, shop testing, erection, testing and commissioning of piping, valves and specialities.

5.01.00 **GENERAL & SCOPE**

The piping system which shall include but not be limited to the following :

Plain run of piping, bends, elbows, tees, branches, laterals, crosses, reducing unions, couplings, caps, expansion joints, flanges, blank flanges, thrust blocks, anchors, hangers, supports, saddles, shoes, vibration dampeners, sampling connections, hume pipes etc.

Gaskets, ring joints, backing rings, jointing material etc. as required. Also all welding electrodes and welding consumables including special ones, if any.

Instrument tapping connections, stubs etc

Gate and globe valves to start/stop and regulate flow and swing check valves for one directional flow.

Basket strainers and Y-type strainers.

Bolts, nuts, fasteners as required for interconnecting piping, valves and fittings as well as for terminal points. For pipe connections into Owner's R.C.C. works, Bidder will furnish all inserts.

Painting, anti-corrosive coatings etc. inside and outside pipes and equipment.

Adequate number of air release valves shall be provided at the highest points in the piping system to vent any trapped air in the system.

5.02.00 **Design**

5.02.01 Material of construction of various pipes shall be as follows :

(a) Buried Pipes

Mild steel black pipes as per IS:1239, Part-I medium grade (for pipes of sizes 150 NB and below) or IS:3589, Fe 410 grade (for pipes of sizes 200 NB and above) suitably lagged on the outside to prevent soil corrosion, as specified elsewhere.

(b) Overground Pipes normally full of water

Mild steel black pipes as per IS:1239, Part-I medium grade (for pipes for sizes 150 NB and below) or IS:3589, Fe 410 grade (for pipes of sizes 200 NB and above).

(C) Overground pipes normally empty, but periodic charge of water and for detector line for HVW System.

Mild steel galvanised pipes as per IS:1239, Part-I medium grade (for pipes of sizes 150 NB and below) or IS:3589, Fe 410 grade (for pipes of sizes 200 NB and above).

- 5.02.02 All fittings to be used in connection with steel pipe lines up to a size of 80 mm shall be as per IS:1239. Part-II Mild steel tubulars and other wrought steel pipe fittings, Heavy grade. Fittings with sizes above 80 mm upto 150 mm shall be fabricated from IS:1239 Heavy grade pipes or steel plates having thickness not less than those of IS:1239 Part-I Heavy grade pipes. Fittings with sizes above 150 mm shall be fabricated from IS:3589 Class-2 pipes. All fitting used in GI piping shall be threaded type. Welding shall not be permitted on GI piping.
- 5.02.03 Pipelines carrying water, air etc. should be sized on the basis of allowable velocities based on the rated capacity of the pumps.
- 5.02.04 For steel pipeline, welded construction should be adopted unless specified otherwise.
- 5.02.05 All piping system shall be capable of withstanding the maximum pressure arising from any condition of operation and testing including water hammer effects.
- 5.02.06 Gate/sluice valve will be used for isolation of flow in pipe lines and shall be as per IS:778/BS-5150 (for size upto 40 mm), IS:780 (for sizes above 40 mm and upto 300 mm) and IS:2906 (for sizes above 300 mm). Valves shall be of rising spindle type. PN 1.6 class valves shall be provided.
- 5.02.07 Gate Valves shall be provided with the following :
Hand wheel.
Position indicator.
Draining arrangement of valve seat.
Locking facility (where necessary).
- 5.02.08 Gate valves shall be provided with back seating bush to facilitate gland removal during full open condition.
- 5.02.09 Globe valves shall be provided with contoured plug to facilitate regulation and control of flow. All other requirements should generally follow those of gate valve.
- 5.02.10 Non-return valves shall be swing check type. Valves will have a permanent "arrow" inscription on its body to indicate direction of flow of the fluid. These valves shall generally conform to IS:5312.

5.02.11 Whenever any valve is found to be so located that it cannot be approached manually from the nearest floor/gallery/platform hand wheel with floor stand or chain operator shall be provided for the same.

5.02.12 Valves below 50 mm size shall have screwed ends while those of 50 mm and higher sizes shall have flanged connections.

5.03.00 **Strainers**

Basket Strainer

- a) Basket strainers shall be of 30mesh and have the following materials of construction :Body Fabricated mild steel as per IS:2062 (Tested Quality). Strainer Wires of stainless steel (AISI : 316), 30 SWG, suitably reinforced.
- b) Inside of basket body shall be protected by two (2) coats of heavy duty bitumastic paint.
- c) Strainers shall be Simplex design.Suitable vent and drain connections with valves shall be provided.
- d) Screen open area shall be at least 4 times pipe cross sectional area at inlet.
- e) Pressure drop across strainer in clean condition shall not exceed 1.5 MWC at 410 M³/hr flow.

5.03.01 **Y-type On-line Strainer**

Body shall be constructed of mild steel as per IS:2062 (tested quality). Strainer wires shall be of stainless steel AISI:316, 30 SWG, 30 mesh.

Blowing arrangement shall be provided with removable plug at the outlet. Screen open area shall be atleast 4 times pipe cross-sectional area at inlet.

6.00.00 **AIR VESSELS**

6.01.00 Air vessels shall be designed and fabricated of mild steel as class-II vessels as per IS:2825.

6.02.00 Inside surface of the tank shall be protected by anti-corrosivepaints/coatings/linings as required.

6.03.00 Outside surfaces of the vessels shall be provided with one (1) coat of red lead primer with two (2) coats of synthetic enamel paint of approved colour and characteristics.

6.04.02 All materials used for fabrication shall be of tested quality and test certificates shall be made available to the Owner.

7.00.02 **CODES AND STANDARDS**

All specialized fire fighting equipment supplied shall conform to Indian/internationally accepted codes and standards. All equipment offered by Bidders should come with test certificate.

8.00.00 **HEAT DETECTORS, QUARTZOID BULB TYPE.**

- a) Heat detectors shall be of any approved and tested type. Fusible chemical pellet type heat detectors are however not acceptable.
- b) Temperature rating of the heat detector shall be selected by the Bidder taking into consideration the environment in which the detectors shall operate. Minimum set point shall, however, be 79°C.
- c) Heat detectors shall be guaranteed to function properly without any maintenance work for a period of not less than twenty five (25) years.
- d) The heat detectors must be approved by the Tariff Advisory Committee, India or FOC, London or a reputed international authority.
- e) The heat detectors shall be mounted on a pipe network charged with water at suitable pressure. On receipt of heat from fire, the heat detector will release the water pressure from the network. This drop in water pressure will actuate the Deluge valve.
- f) The Bidder may offer alternative method of heat detection and type of heat detectors, provided these are acceptable to the Tariff Advisory Committee and the Employer.

9.00.00 **WHEELED WATER MIST SYSTEM**

9.00.01 Intent of Specification

This specification lays down the requirement regarding wheeled water mist system:

1. Conforming to IS 16018 latest.
2. Hose at least 4 m long and a shut-off nozzle at the end of the hose.
3. Shall be suitable for Class "A", Class "B", Class "C" of Fire.
4. Test certificate from NABL Accrediated Lab shall also be produced.
5. Shall be ISI marked.

10.01.00 **SWITCHES, LAMPS, METERS ETC.**

All electrical components on the panel namely push buttons, switches, lamps, meters etc. shall meet the requirements of sub-section Electrical enclosed with the specification.

- 10.01.01 All local instruments shall be inspected by Employer/Consultant as per the agreed quality plan.
- 10.01.02 Makes of control panel and local instruments, accessories shall be as per Employer's approval.

11.00.00 **FIRE BARRIER FOR TRANSFORMER CONTROL CABLES:**

A Fire resistant, non shrinkage material shall be required for the construction of barrier to restrict the spread of fire through transformer control cable.

12.00.00 **BRIEFING OF QUANTITY OF WORK TO BE EXECUTED AT 400 KV S/S KHEDAMARA:**

- (i) Water Tank - 01 No.
- (ii) Control Panel Room - 01 No.
- (iii) Wheeled Water Mist System - 3 No.
- (iv) Mobile Foam Unit - 3 No.
- (v) Construction of Fire barrier - 48 Sq.meter
- (vi) Main Water Pump (Electric Driven)- 01 No.
- (vii) Diesel Driven Water Pump - 01 No.
- (viii) Jockey Pump -01 No.
- (ix) Construction of Shed - 08 No.

Apart from above, the remaining items shall be as per the final designing of the system.

Note: The design of the system shall be submitted to the office of C.E(S&P), CSPTCL, Raipur within 15 days from the date of order for approval.

13.00.00 **TECHNICAL DATA SHEETS FOR FIRE FIGHTING EQUIPMENT**

<u>DATA SHEET FOR DELUGE VALVE</u>		
1.0	Manufacturer	CSPTCL Raipur Approved make
2.0	Number & size	As per approved system drawings.
3.0	Type	Differential Diaphragm type.
4.0	Rating	
4.1	Pressure	Working Pressure -12 kg/cm ² Test Pressure -25 kg/ cm ² .
5.0	Material of construction	
5.1	Seat Seal	Neoprene Rubber
5.2	Diaphragm	Neoprene Rubber
6.0	Differential pressure required for operation	Differential Ratio-50 %
7.0	Water Motor Gong provided	Yes
7.1	Type	Hydraulic type
7.2	Material of Construction :	
7.2.1	Manual actuation lever provided?	Yes
8.0	Remote actuation with Solenoid Valve provided?	Yes
9.0	Deluge valve complete with test and drain valves, manual operation arrangement, supporting structures and all necessary accessories.	Yes
10.0	Approval of Deluge Valve.	FM of USA,UL of USA,LPCB of U.K. or VDS of Germany

DATASHEET FOR HVW SPRAY NOZZLE

1.0	Make	CSPTCL Raipur Approved make
2.0	Type	High velocity water spray type
3.0	Working pressure	3.5 bar to 5 bar
4.0	Material	Brass
5.0	K factor	As per approved design & drawings
6.0	Quantity	As per approved design & drawings
7.0	Integral non-ferrous strainer provide	Yes
8.0	Approval of HVW spray Nozzle.	FM of USA, UL of USA, LPCB of U.K. or VDS of Germany

DATA SHEET FOR QUARTZOID BULB DETECTORS

1.0	Make	CSPTCL Raipur Approved make
2.0	Type	Quartzoid bulb type
3.0	Rated pressure	12.3 kg/cm ² (175 PSI).
4.0	Hydrotest pressure	30kg/cm ²
5.0	Material of construction	
5.1	Frame	Bronze
5.2	Bulb	Glass
5.3	Deflector	Copper
6.0	Temperature rating	79°C
7.0	Quantity	As per approved drawings
8.0	Approval of Detector	FM of USA, UL of USA, LPCB of U.K. or VDS of Gemrany or ISI

DATA SHEET FOR MANUAL CALL POINT

1.0	Manufacturer	CSPTCL Raipur Approved make
2.0	Construction	Deep drawn sheet steel
3.0	Type	Break glass with push button or latest equivalent.
4.0	Operating Voltage	24 V DC 10%
5.0	Type of control	Pole –NO/NC
6.0	Degree of protection	IP 52
7.0	Material of housing	M.S. 18 Gauge
8.0	Colour	FIRE RED
9.0	Accessories	Hammer & Chain assembly

DATA SHEET FOR FIRE ALARM SOUNDER (HOOTER)

1.0	Manufacturer	CSPTCL Raipur Approved make
2.0	Construction	Deep drawn sheet steel
3.0	Type	Dual tone/Single tone
4.0	Operating Voltage	24 V DC \pm 10%
5.0	Output	Not less than 80Db(A) but not more than 120 Db (A) at 1.5m distance
6.0	Output frequency range	500 Hz. To 1000 Hz.
7.0	Operating time	50 minutes (Minimum)
8.0	Material of housing	M.S. 18 Gauge
9.0	Colour	FIRE RED
10.0	Marking	FIRE ALARM.

DATA SHEET FOR GLOBE VALVE

1.0	Nominal size in mm.	15 TO 40
2.0	Make	CSPTCL Raipur Approved make
3.0	Type	Globe
4.0	Number	As per approved system drawings.
5.0	Material of construction	
5.1	Body	Bronze to IS 318 Grade LTB2
5.2	Hand wheel	Grey cast iron. grade FG200 of IS 210.
5.3	Bonnet & Bonnet Wedge	Bronze to IS 318 Grade LTB2
5.4	Trim	Bronze to IS 318 Grade LTB2
6.0	End connection	Screwed
7.0	Standard	IS:778
8.0	Rating	PN 1.6
9.0	Hydrostatic test pressure	
9.1	Body	24 kg/cm ²
9.2	Seat	16 kg/cm ²

DATA SHEET FOR GUN METAL GATE/SLUICE VALVE

1.0	Nominal size in mm.	15 TO 40	50 to 300
2.0	Make	CSPTCL Raipur Approved make	
3.0	Type	Gate /Sluice	

4.0	Number	As per approved system drawings.	
5.0	Material of construction		
5.1	Body	Bronze to IS 318 Grade LTB2	Grey cast iron. grade FG200 of IS 210
5.2	Hand wheel	Grey cast iron. Grade FG200 of IS 210.	
5.3	Bonnet & Wedge	Bronze to IS 318 Grade LTB2	Grey cast iron, grade FG200 of IS 210.
6.0	End connection	Screwed	Flanged
7.0	Standard	IS:778	IS:14846
8.0	Rating	PN 1.6	
9.0	Hydrostatic test pressure		
9.1	Body	24 kg/cm ²	
9.2	Seat	16 kg/cm ²	

DATA SHEET FOR CHECK VALVES (NON –RETURN VALVES)

1.0.0	Make	CSPTCL Raipur Approved make
1.1.0	Type	Swing Check Type
1.2.0	Standard followed	ISI
1.3.0	Rating	PN 1.6
1.4.0	Material of construction, Dimensions.	As per ISI
1.5.0	Inlet Outlet details	Flanged
1.6.0	Hydrostatic test pressure ,kg/cm ²	
1.6.1	Body	24
1.6.2	Seat	16

S.NO.	MATERIAL	BRAND NAME
1.	M. S. Pipes	ISMT/Jindal / MSC/Apollo/SAIL/TATA
2.	G.I. Pipes	ISMT/Jindal / MSC/Apollo/SAIL/TATA
3.	Gun Metal Valves (Gate, Globe)	Kirloskar/Zoloto/HD fire/kartar
4.	CI Double flanged sluice valves & check Valves & Y- Stainer	Kirloskar/kartar/zoloto/HD fire
5.	Butterfly Valves	Kirloskar / kartar/ Zoloto / AIP/Inter valve

6.	CI double flanged non-return valves	Kirloskar/kartar/zoloto.
7.	Suction Strainer	Leader / Sant/kartar/zoloto.
8.	Sprinkler (ISI MARKED)	Spray Safe / HD / lifeguard/ Tyco
9.	Fire Hydrant Landing Valves, Fire brigade connection (ISI marked)	Minimax / lifeguard/cease fire
10.	High Velocity Spray Nozzle & QB detector	Spray Safe /HD fire/fire guard.
11.	Fire hose pipes, First Aid Hose Reel (ISI Marked)	Minimax /lifeguard.
12.	Branch Pipe, Nozzle and coupling(ISI marked)	Minimax / lifeguard
13.	Wheeled water Mist system(ISI Marked)	Minimax /lifeguard/ceasefire
14.	Pumps	KEC/CGL/Math&Platt/Lubi
15.	Motors	KEC/CGL/Engine KOEL/Lubi/Eicher
16.	Starters	Siemens / L&T / Cutler Hammer
17.	Single phasing preventor / over load Protection unit.	Siemens / L&T/Schneider
18.	Pressure Switch	Danfoss / Swizer/HD Fire/Potter
19.	Pressure Gauge	H. Gure /Fiebig
20.	Relays	L&T / Siemens/ABB/C&S/EQUIVALENT
21.	Contactors	L&T / Siemens/Schneider/C&S
22.	Control Cable(with and without fire protection)	CCI / Gloster / Havells/KEI/Polycab
23.	Moulded case circuit breakers.	L&T/ Siemens/schneider
24.	Fuse Disconnecter switch / switch fuse units.	L&T / MDS / Siemens / GE power / ABB / C&S/Schneider
25.	HRC Fuses	L&T / Siemens/Bussman/Ferraz/
26.	Ammeter, Voltmeter	Any reputed
27.	Selector switch, push button switch / emergency switch	Any reputed
28.	1.1 KV LT Cables (ISI marked) (with and without fire protection)	CCI / Gloster / Havells/Polycab/KEI
29.	Fire Alarm Panel	Any Reputed
30.	Fire electrical control panel	Any Reputed
31.	Fire Stop Mortar(UL/FM) Approved	Any reputed
32.	Cable Coating(FM) Approved	Any Reputed

SCHEDULE - I**PRICE BID**

S. No.	Particular	Qty	Unit price in Rs.	GST on base price @ 18 %	Unit Price including GST (4+5) in Rs.	Total Amount (in Rs)
1	2	3	4	5	6	7
1.	Providing, Fixing, Testing and Commissioning of Fire Protection system by dismantling of existing system at 400 KV S/s Khedamara . as specified under Section II.	1 Job				

SIGNATURE OF BIDDER & SEAL

SCHEDULE – II**SCHEDULE OF BIDDER'S EXPERIENCE**

Bidder shall furnish here a list of similar jobs executed by him. A reference may be made by the purchase to them in order be considers such a reference necessary.

S.N.	Name & Description of work. (adequate details to be given certifying the work done)	Order No. & date	Client or order placing authority	Person to whom reference to be Made

Signature of Bidder

Name :

Company :

SCHEDULE – III
COMMERCIAL INFORMATION

Strike-off, whichever is not applicable

1.i)	Whether purchased from this office or downloaded?	Yes/No
ii)	If down loaded, whether tender cost is furnished? Details of MICR DD for tender cost	Yes/No
iii)	Amount of EMD	Rs.
iv)	Earnest Money details & GST Number & registration certificate	Bank draft/ Banker's cheque/ Cash with Manager (RAO: HQ), CSPTCL, Raipur. GST Number & Registration certificate Enclosed
v)	If exempted, state whether bidder is	SSI Unit of CG/ Small scale unit registered with NSIC/ Fully owned State Central Govt. Unit.
vi)	Reference of documentary evidence regarding exemption enclosed	Yes/ No
2.	Whether the offer is valid for 180 days from the date of opening of commercial/technical bid	Yes/ No (If no, state validity period)
3.	Rate of GST(goods and service tax)	
4.	PAYMENT TERMS:- Whether CSPTCL's terms of payment is acceptable to the bidder .	Yes/ No
5.	DELIVERY PERIOD:- Whether CSPTCL's terms of Delivery is acceptable to the bidder.	Yes/ No
6.	PENALTY CLAUSE Whether agreeable to CSPTCL's Penalty clause	Yes/ No
7.	GUARANTEE PERIOD :- Whether agreed to CSPTCL's guarantee period of 36 months from date of commissioning, Demonstration & Training.	Yes/ No
8.	SECURITY DEPOSIT Whether agreeable to furnish CSPTCL's Standard security deposit @ 10% of value	Yes/ No

	of order for satisfactory execution of the order and to cover guarantee period. (If not, indicate deviation specifically)	
9.	EXTENSION ORDER:- Whether you are agreeable to accept extension order for 50% of ordered amount of work in the same terms & condition if any extension order is placed within 6 months from the date of placement of detailed order.	Yes/ No
10.	Please mention whether rates offered are applicable for part quantities.	Yes/ No
11.	Mention Turn over of the firm for last three years (Enclose balance sheets in support)	
(a)	2015-16	
(b)	2016-17	
(c)	2017-18	
(d)	2018-19	
(e)	2019-20	
(e)	C.A. audited self attested copy of net worth for the last three financial years submitted.	Yes/No
13.	Year of start of manufacture of offered equipment/ material.	
14.	Whether submitted Notary attested copy of undertaking duly certified by CA stating that a) All interest payment obligations on outstanding debentures have been discharged and no such payment as on 31.03.2020 is/was outstanding / overdue. b) Company is presently not in default in repayment of bank loan and has not been taken up for CDR/SD.	Yes/ No
15.	Whether submitted Pre – contract Integrity pact	Yes/ No

NOTE:- Scanned copy of this schedule is to be uploaded in e-bidding portal.

Place:-

SIGNATURE OF BIDDER:

NAME IN FULL:

Date:-

DESIGNATION/STATUS IN THE FIRM :

COMPANY SEAL

SCHEDULE – IV A

SCHEDULE OF COMMERCIAL DEVIATIONS

We/I have carefully gone through the Commercial requirements of specification and the General condition of contract and we/I have satisfied ourselves/myself and hereby confirm that our/my offer strictly conforms to the requirements of commercial specification and General conditions of contract except for the deviations, which are given below:-

S. No.	DESCRIPTIONS & CLAUSE NO. OF THE SPECIFICATION & PAGE NUMBER	STIPULATION IN SPECIFICATION	DEVIATION OFFERED.	REMARKS REGARDING JUSTIFICATION OF THE DEVIATION
1	2	3	4	5

NOTE:-Scanned copy of this schedule is to be uploaded in e-bidding portal.

Dated

Name and seal of the tendering Company

SCHEDULE – IV B

SCHEDULE OF TECHNICAL DEVIATIONS

We/I have carefully gone through the Technical specification and the General condition of contract and we/I have satisfied ourselves/myself and hereby confirm that our/my offer strictly conforms to the requirements of technical specification and General conditions of contract except for the deviations, which are given below:-

S.N	DESCRIPTIONS & CLAUSE NO. OF THE SPECIFICATION & PAGE NUMBER	STIPULATION IN SPECIFICATION	DEVIATION OFFERED.	REMARKS REGARDING JUSTIFICATION OF THE DEVIATION
1	2	3	4	5

Except for aforesaid deviations, the entire order, if placed on us, shall be executed in accordance with your specification and any other conditions, variation/deviation etc. if found elsewhere in our offer should not be given any considerations while finalizing the tender.

Dated

Name and seal of the tendering Company

SCHEDULE-V**GENERAL INFORMATION**

The bidders shall furnish general information in the following format:-

1. Name of the Firm
2. Offered Equipment OEM detail
 - (i) Make-
 - (ii) Model No.-
 - (iii) Country of Origin -
3. Manufacturer Works Address-
4. Head Office address & Phone No.-
5. Marketing Office address & Phone No.-
6. Service Centre address in India & Phone No.-
(Separate for each Instrument)
7. Contact Person
8. Mobile No. of contact person
9. Telephone No. Residence
10. Fax No.
11. E-mail:-
12. PF / ESIC Registration No.

Dated

Name and seal of the tendering Compan

Place

ANNEXURE- I**PRE-CONTRACT INTEGRITY PACT****1. GENERAL**

- 1.1 This pre-bid contract Agreement (hereinafter called the Integrity Pact) is made on.....day of the month20..., between the CSPTCL acting through Shri.....CE (S&P) (hereinafter called the “BUYER”, which expression shall mean and include, unless the context otherwise requires, his successors in the office and assigns) and the First Party, proposes to procure (name of the Stores/Equipment/Work/Service) and M/s. represented by Shri.....Chief Executive Officer (hereinafter called the “BIDDER/Seller”, which expression shall mean and include, unless the context otherwise requires, his successors on permitted assigns) and the Second Party, is willing to offer/has offered.
- 1.2 WHEREAS the BIDDER is a Private Company/Public Company/ Government undertaking/Partnership/Registered Export Agency, constituted in accordance with the relevant law in the matter and the BUYER is a power company an undertaking of Govt. of CG, performing its function on behalf of the Government of Chhattisgarh.

2. OBJECTIVES

- 2.1 NOW, THEREFORE, the BUYER and the BIDDER agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the Contract to be entered into with a view to:-
- 2.2 Enabling the BUYER to obtain the desired Stores/Equipment/Work/Service at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and
- 2.3 Enabling BIDDERS to abstain from bribing or indulging in any corrupt practices in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing any corrupt practices and the BUYER will commit to prevent corruption, in any form, by its official by following transparent procedures.

3. COMMITMENTS OF THE BUYER

The BUYER commits itself to the following:-

- 3.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting of implementation process related to contract.
- 3.2 The BUYER will, during the pre-contract stage, treat BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to the other BIDDERS.
- 3.3 All the officials of the BUYER will report the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with the full and verifiable facts and the same prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from

further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

4. COMMITMENTS OF BIDDERS

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

- 4.1. The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 4.2. The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage, or inducement to any official of the BUYER or otherwise in procuring the Contract of forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the CSPTCL for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the CSPTCL.
- 4.3. The BIDDER further confirms and declares to the BUYER that the BIDDER in the original Manufacture/Integrator/Authorized government sponsored export entity of the stores and has not engaged any individual or firm or company whether foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 4.4. The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payment he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 4.5. The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 4.6. The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 4.7. The BIDDER shall not use improperly, for purpose of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposal and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 4.8. The BIDDER commits to refrain from giving any compliant directly or through any other manner without supporting it with full and verifiable facts.
- 4.9. The BIDDER shall not instigate or cause to instigate any third person to commit any of the acts mentioned above.

5. PREVIOUS TRANSGRESSION

- 5.1. The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

5.2. If the BIDDER makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

6. EARNEST MONEY (SECURITY DEPOSIT)

6.1. Every BIDDER while submitting commercial bid, shall deposit an amount as specified in RFP as Earnest Money/Security Deposit, with the BUYER through any of the following instruments:

- (i) Bank Draft or Pay Order in favour of.....
- (ii) A confirmed guarantee by an Indian Nationalised Bank, promising payment of the guarantee sum to the(BUYER).....on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payment.
- (iii) Any other mode or through any other instrument (to be specified in the RFP).

6.2. The Security Deposit shall be valid up to complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and BUYER, including warranty period, whichever is later.

6.3. In the case of successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.4. No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

7. SANCTIONS FOR VIOLATIONS

7.1. Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- (i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- (ii) To forfeit fully or partially the Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed), as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- (iv) To recover all sum already paid by the BUYER, and in case of the Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate while in case of a BIDDER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- (vi) To cancel all or any other contracts with the BIDDER and the BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

- (vii) To debar the BIDDER from participating in future bidding processes of the CSPTCL for a minimum period of five years, which may be further extended at the discretion of the BUYER.
- (viii) To recover all sum paid in violation of this Pact by BIDDER(s) to any middlemen or agent or broken with a view to securing the contract.
- (ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
- (x) If the BIDDER or any employee of the BIDDER or any person action on behalf of the BIDDER, either directly or indirectly, is closely related to any of the officers of the BUYER, or alternatively, if any close relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender. Any failure to disclose the interest involved shall entitle the BUYER to rescind the contract without payment of any compensation to the BIDDER.

The term 'close relative' for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependant upon Government servant.

- (xi) The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER, and if he does so, the BUYER shall be entitled forthwith to rescind the contract and all other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

7.2. The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Monitor(s) appointed for the purpose of this Pact.

8. INDEPENDENT MONITORS

- 8.1. The BUYER will appoint Independent Monitors (hereinafter referred to as Monitors) for this Pact.
- 8.2. The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4. Both the parties accept that the Monitors have the right to access all the documents relating to the project/ procurement, including minutes of meetings. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/ Subcontractor(s) with confidentiality.
- 8.5. As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6. The Monitor will submit a written report to the designated authority of BUYER/Secretary in the department/within 8 to 10 weeks from the date of reference or intimation to him by the BUYER /BIDDER and, should the occasion arise, submit proposal for correcting problematic situations.

9. FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provision of this fact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the books of Account of the BIDDER and the BIDDER shall provide necessary information of the relevant documents and shall extend all possible help for the purpose of such examination.

10. LAW AND PLACE OF JURISDICTION

This pact is subject to Indian Law, the place of performance and jurisdiction shall be the seat of the BUYER.

13. OTHER LEGAL ACTIONS

The actions stipulated in this integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of any other law in force relating to any civil are criminal proceeding.

12. VALIDITY

12.1 The validity of this integrity Pact shall be from the date of its signing and extend up to 2 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

12.2. If one or several provision of this pact turn out to be invalid; the reminder of this pact shall remain valid. In such case, the parties will strive to come to an agreement to their original intention.

13. The parties hereby sign this integrity Pact aton.....

BIDDER

BUYER

Witness

Witness

1).....

1).....

.....

.....

2).....

2).....

.....

.....

ANNEXURE –II
Performa for Power of Attorney
TO BE ISSUED BY MANUFACTURER
TO ITS AUTHORISED REPRESENTATIVE (BIDDER)

(To be executed on Non-Judicial Stamp Paper worth Rs. 250.00 & Rs.1.00 revenue stamps)

KNOW ALL MEN BY THESE PRESENTS THAT WE,Company incorporated under the laws of and having its Registered Office(s)/Head Office(s) at (hereinafter called the 'Manufacturer' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) through Mr. its(designation) do hereby constitute, nominate and appoint a Company incorporated under the laws of and having its Registered/Head Office at as its duly constituted lawful Attorney (hereinafter called "Attorney" or "Authorized Representative") to exercise all or any of the powers for and on behalf of the manufacture in regard to Specification No. TR-20/S&P/25 for **tendered item/work** the bids for which have been invited by Chhattisgarh State Power Transmission Co. Ltd. (CSPTCL) a Company incorporated under the companies Act of 1956 having its registered office at 3rd floor, Vidyut Sewa Bhawan Dangania, Raipur CG (hereinafter called the "Purchaser/CSPTCL" which expression shall include its successors, executors and permitted assigns) to undertake the following acts:

- i) To submit proposal and participate in the aforesaid Bid Specification of the CSPTCL on behalf of the Manufacturer.
- ii) To negotiate with the CSPTCL the terms and conditions for award of the Contract pursuant to the aforesaid Bid and to sign the Contract with the CSPTCL for and on behalf of the Manufacturer
- iii) To do any other act or submit any document related to the above.
- iv) To receive, accept and execute the Contract for and on behalf of the Manufacture.

It is expressly understood that this Power of Attorney shall remain valid, binding and irrevocable till Completion of Warranty Period in terms of the Contract.

The Manufacturer hereby agreed and undertakes to ratify and confirm all whatsoever the said Attorney/Authorized Representative quotes in the bid, negotiates and signs the Contract with the Purchaser and/or proposes to act on behalf of the Manufacturer by virtue of this Power of Attorney and the same shall bind the Manufacturer as if done by itself.

IN WITNESS THEREOF the Manufacturer has executed these presents on this day of under the Common Seal of the Manufacturer (company).

For and on behalf of the

Common Seal of the above Manufacturer

The Common Seal has been affixed there unto in the presence of :

WITNESS

1. Signature.....

2. Signature.....

Name

Name

.....

Designation

Designation

Occupation

Occupation

Note:

1. The non-judicial stamp papers of appropriate value (INR 250/-) shall be purchased in the name of Manufacturer and the date of purchase should not be later than six months of date of execution of the Undertaking.
2. The filled up Proforma by the manufacturers shall be enclosed alongwith the bid in case of bid is submitted by authorized representative.
3. A documentary evidence (Power of Attorney) must be submitted to ascertain that the person signing on behalf of manufacturer is authorized to sign above document.

ANNEXURE – III

**PROFORMA FOR BANK GUARANTEE TOWARDS SECURITY DEPOSIT
(To be executed on non-judicial stamp paper of Rs. 250/- and Rs 1/- Revenue stamp
may be affixed on Bank Guarantee)**

Bank Guarantee No..... Dated.....

In consideration of the Chhattisgarh State Power Transmission Company Limited, Raipur (A successor company of Chhattisgarh State Electricity Board, Raipur hereinafter referred to as ‘CSPTCL’) having agreed to accept this Bank Guarantee in lieu of cash deposit by way of Security for due and faithful performance required from M/s. _____ (herein after referred to as “Contractors”, the Bank of _____ hereby agrees unequivocally and unconditionally to pay within 48 hours on demand in writing from the Chhattisgarh State Power Transmission Company Limited or any officer authorized by it in this behalf of any amount upto and not exceeding Rs.....(in words) only to the said Chhattisgarh State Power Transmission Company Limited on behalf of the aforesaid M/s who have tendered and contracted for the supply of materials, equipments or services to the said the Chhattisgarh State Transmission Company Ltd, against order No..... dated..... For the order value of Rs.....

The beneficiary of this Bank Guarantee shall be Chhattisgarh State Power Transmission Company Limited, Raipur (A Successor Company of erstwhile CSEB Raipur). The proceeds / encashment of this Bank Guarantee would go in the name of Chhattisgarh State Power Transmission Company Limited, Raipur (A Successor Company of erstwhile CSEB Raipur).

This agreement should be validand binding on this bank up to and including claim period upto _____ 20____ or for such further period as may here under be mutually fixed from time to time in writing by the Chhattisgarh State Transmission Company Ltd. and the contractor shall not be terminable by notice or any change in the constitution of the aforesaid bank or the firm of Contractors or by any others reasons whatsoever and the Banker’s liability hereunder shall not be impaired or discharged by any extension of time or variations or alteration made, given conceded or agreed to with or without the Bank knowledge or consent by or between the Chhattisgarh State Transmission Company Ltd. and contractor in the existing and / or further tenders and / or contracts.

It is agreed by the Bank with the CSPTCL that if for any reason a dispute arises concerning the Bank’s liability to pay the requisite amount to the CSPTCL under the terms of this guarantee the competent court at Raipur alone shall have the jurisdiction to determine the said dispute and that this shall be without prejudice to the liability of the Bank under the terms of this guarantee being unequivocal and unconditional as mentioned above.

The liability under this guarantee is restricted to Rs..... (in words)only. This guarantee shall remain in force until dtd....., unless a demand to enforce a claim under the guarantee is made by CSPTCL to the Bank upto dtd..... the rights of the CSPTCL under this guarantee shall be forfeited and Bank shall be relieved and discharged from all liabilities there under.

WITNESSES:-

SIGNATURE

Authorized Signatories of Bank

1.

Signed._____

2.

for _____ Bank

ANNEXURE –IV

PROFORMA FOR UNDERTAKING BY THE JOINT VENTURE PARTNERS

(To be executed on Non-Judicial Stamp Paper worth Rs. 100.00 &Rs. 1.00 revenue stamps)

THIS JOINT DEED OF UNDERTAKING executed on this..... day of..... Two Thousand and..... by a company incorporated under the laws of and having its Registered Office at(hereinafter called the “Lead Partner” which expression shall include its successors, executors and permitted assigns) and M/s..... a company incorporated under the laws ofand having its Registered Office at (hereinafter called the “Other partner” which expression shall include its successors, executors and permitted assigns) for the purpose of making a bid and entering into a contract [hereinafter called the “Contract”{in case of award}] against the Specification No **TR-__** for (*insert name of the project*) of C.S. Power Transmission Co. Ltd, a Company incorporated under the Companies Act of 1956 having its registered office at Dangania, Raipur (hereinafter called the “CSPTCL”).

AND WHEREAS CSPTCL invited bids as per the above mentioned Specification for construction ofstipulated in the bidding documents under Specification No **TR- - ____**(*insert name of the project*)

AND WHEREAS Qualification Criteria of the specification stipulates that an Undertaking of not more than two firms as partners, meeting the requirements of Qualification Criteria, as applicable may bid, provided, the Joint Venture fulfills all other requirements of Qualification Criteria and in such a case, the Bid Forms shall be signed by both the partners so as to legally bind the Partners of the Joint Venture, who will be jointly and severally liable to perform the Contract and all obligations hereunder.

The above clause further states that this Undertaking shall be attached to the bid and the Contract performance guarantee will be as per the format enclosed with the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to CSPTCL vide proposal No.....dated by the “Lead Partner” based on this Undertaking between both parties; under these presents and the bid in accordance with the requirements of Tender specification & Qualification Criteria has been signed by both the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:-

In consideration of the above premises and agreements the parties of this Deed of Undertaking do hereby declare and undertake:

1. In requirement of the award of the Contract by the CSPTCL to the Joint Venture Partners, we, the Parties do hereby undertake that M/s..... shall act as “Lead Partner” and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound unto the CSPTCL for the successful performance of the Contract and shall be fully responsible for the design, supply, erection, testing, commissioning and successful performance of the project in accordance with the Contract.

2. In case of any breach or default of the said Contract by the Lead Partner of the Joint Venture, the other partner do hereby undertake to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.
3. Further, if the CSPTCL suffers any loss or damage on account of any breach in the Contract or any shortfall in the performance of the equipment/ material in meeting the performances guaranteed as per the specification in terms of the Contract, the Party(s) of these presents undertake to promptly make good such loss or damages caused to the CSPTCL, on its demand without any demur. It shall not be necessary or obligatory for the CSPTCL to proceed against Lead Partner to these presents before proceeding against or dealing with the other Party(s), CSPTCL can proceed against other partner who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to the CSPTCL.
4. The financial liability of the Parties of this Deed of Undertaking to the CSPTCL, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in this Deed of Undertaking, read in conjunction with the relevant conditions of the Contract shall, however not be limited in any way so as to restrict or limit the liabilities or obligations of any of the Partners of this Deed of Undertaking.
5. It is expressly understood and agreed between the parties to this under taking that the responsibilities and obligations of each of the parties shall be as delineated in the tender to this Deed of Undertaking. It is further undertaken by the parties that the above sharing of responsibilities & obligations shall not in any way be a limitation of joint and several responsibilities of the parties under the contract.
6. It is also understood that this Undertaking is provided for the purposes of undertaking joint and several liabilities of the partners to the Joint Venture for submission of the bid and performance of the Contract and that this Undertaking shall not be deemed to give rise to any additional liabilities or obligations, in any manner or any law, on any of the Parties to this Undertaking or on the Joint Venture, other than the express provisions of the Contract.
7. This Undertaking shall be construed and interpreted in accordance with the provisions of the Contract.
8. In case of an award of a Contract, we the parties to this Deed of Undertaking do hereby agree that we shall be jointly and severally responsible for furnishing a Contract performance security from a bank in favour of the CSPTCL in the currency/currencies of the Contract.
9. It is further agreed that this Deed of Undertaking shall be irrevocable and shall form an integral part of the bid and shall continue to be enforceable till the CSPTCL discharges the same or upon the completion of the Contract in accordance with its provisions, whichever is earlier. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Parties to this Deed of Undertaking have through their authorized representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

Seal of
 has been affixed in my/ our
 presence pursuant to Board of
 Director's Resolution dated
 Name
 Designation
 Signature

For "Lead Partner"
 For and on behalf of M/s

 (Signature of the authorized
 Representative)

WITNESS :

I.....

II.

Seal of
 has been affixed in my/ our
 presence pursuant to Board of
 Director's Resolution dated
 Name
 Designation
 Signature

For "other Partner"
 For and on behalf of
 M/s.....
 (Signature of the authorized
 representative)

WITNESS :

I.....

II.

Note :

1. The non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture and the date of purchase should not be later than six months of date of execution of the Undertaking.
2. The Undertaking shall be signed on all the pages by the authorized representatives of each of the partners and should invariably be witnessed.

ANNEXURE –V**PROFORMA FOR POWER OF ATTORNEY FOR JOINT VENTURE**

(To be executed on Non-Judicial Stamp Paper worth Rs. 100.00 & Rs.1.00 revenue stamps)

KNOW ALL MEN BY THESE PRESENTS THAT WE, the Partners whose details are given hereunder have formed a Joint Venture under the laws of and having our Registered Office(s)/Head Office(s) at (hereinafter called the 'Joint Venture' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) acting through M/s being the "Lead Partner" do hereby constitute, nominate and appoint M/s..... a Company incorporated under the laws of and having its Registered/Head Office at as our duly constituted lawful Attorney (hereinafter called "Attorney" or "Authorized Representative" or "Partner In-charge") to exercise all or any of the powers for and on behalf of the Joint Venture in regard to Specification No **TR-**..... the bids for which have been invited by Chief Engineer (Planning Projects), Dangania, Raipur of C.S. Power Transmission Co. Ltd. (CSPTCL) to undertake the following acts :

- iii) To submit proposal and participate in the aforesaid Bid Specification of the CSPTCL on behalf of the "Joint Venture".
- iv) To negotiate with the CSPTCL the terms and conditions for award of the Contract pursuant to the aforesaid Bid and to sign the Contract with the CSPTCL for and on behalf of the "Joint Venture".
- iii) To do any other act or submit any document related to the above.
- iv) To receive, accept and execute the Contract for and on behalf of the "Joint Venture".

It is clearly understood that the Lead Partner shall ensure timely execution of the Contract. In case of any breach of contract by any of the joint venture/consortium partners during execution of the contract, it will be the sole discretion of CSPTCL to allow the other partner to complete the work or to terminate the total contract.

It is expressly understood that this Power of Attorney shall remain valid binding and irrevocable till completion of the Maintenance Period in terms of the Contract. The Joint Venture hereby agrees and undertakes to ratify and confirm all the whatsoever the said Attorney/Authorized Representatives/Partner in-charge/Lead Partner quotes in the bid, negotiates and signs the Contract with the CSPTCL and/or proposes to act on behalf of the Joint Venture by virtue of this Power of Attorney and the same shall bind the Joint Venture as if done by itself.

IN WITNESS THEREOF the Partners Constituting the Joint Venture as aforesaid have executed these presents on this day of under the Common Seal(s) of their Companies.

For and on behalf of the

Partners of Joint Venture

.....
.....
.....

The Common Seal of the above Partners of the Joint Venture:

The Common Seal has been affixed there unto in the presence of:

WITNESS

1. Signature.....
Name
Designation
Occupation

2. Signature.....
Name
Designation
Occupation

Note:

1. The non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture and the date of purchase should not be later than six months of date of execution of the Agreement.
2. The Agreement shall be signed on all the pages by the authorized representatives of each of the partners and should invariably be witnessed.

ANNEXURE –VI
DECLARATION BY THE BIDDER

(To be furnished the Sole bidder/ Lead partner as well as other partner of the JV Separately)

(Please ensure the language of the format is maintained to avoid bid rejection)

Name of the bidder (Sole bidder / JV partners) :

- 1) (Name of the bidder) M/s..... is not debarred/ Blacklisted by Bank / State Govt./ Central Govt. /State PSU/CPSU/SEB/ Public utility as on date of issue of NIT.
- 2) All the document/ statements/ attachments/ information submitted by (Name of the bidder) M/sin proof of qualifying requirements are authentic/ genuine/ correct and in case, any of the said documents/ statements/ attachments/ information is found to be false / fake/ misleading, the bid will be disqualified and action will be taken as per relevant provisions of the tender.

Date

SIGNATURE OF BIDDER

placeName

Designation.....

(Seal of Company)

ANNEXURE -VII
AGREEMENT (PROFORMA)

(To be executed on non judicial stamp paper worth Rs.300/- only with a revenue stamp of Rs. 1/- affixed on it)

This Agreement is made this _____ day of _____ between Shri _____ on behalf of the Contractor _____ (hereinafter called the Contractor which expression shall where the context so admits, be deemed to include his heirs, executors, administrators and representatives) of the one part, and the Chhattisgarh State Power Transmission Company Limited, Raipur being the Company constituted under Companies Act, 1956, (hereinafter called the CSPTCL which expression shall, where the context so admits, be deemed to include its successors in office and permitted assigns) of the other part.

WHEREAS in accordance with a Tender no. _____ dtd. _____ issued by Chief Engineer (P&P) of the CSPTCL, the Contractor submitted his tender dated _____ for construction of

All these works on turnkey basis more particularly described, mentioned, enumerated or referred to in the general conditions, specifications, schedules, drawings etc. forming part of tender, covering letters, schedule of prices and further correspondence, a copy of which is hereto annexed and is for purposes of identification signed by the contractor _____ on behalf of the contractor and Chief Engineer (P&P) of CSPTCL and all of which shall be deemed to form part of this agreement as though separately set out herein and are included in the expression "Contract" herein used (herein after referred to as the said works).

AND WHEREAS the CSPTCL has accepted the tender of the Contractor vide following separate work Orders which have been placed by CSPTCL for construction of aforesaid works on turnkey basis for the total net price of _____ upon the terms and subject to the condition hereinafter mentioned.

NOW THEREFORE THIS AGREEMENT WITNESSES AND IT IS hereby agreed as follows:

1. The contractor shall undertake following works :
 - (i) Supply of tower parts and all associated line accessories and complete erection of transmission line within the time specified in and in accordance with the terms and conditions specified in the CSPTCL aforesaid Work Orders.
2. The contractor shall commence the works described in the Notice Inviting Tender No. 02-04/NIT/TR-....., dated, namely, the construction of line , simultaneously and thereafter execute the works in parallel in accordance with the completion schedule submitted in the format set out in Annexure A-8 of the Tender Specifications No. TR-....., read with the PERT Network / Bar Chart submitted in accordance with clause 3.05 of the tender. The Works shall be completed by the contractor on turnkey basis not later than (.....) **calendar months including rainy season from the date of order.** In the event the contractor fails to undertake the Works in accordance with the Schedule, the contractor may be liable for penalty at the discretion of CSPTCL in terms of clause clause 2.06 of the tender .
3. In the event of a conflict or contradiction between: (a) any provision(s) in this agreement and any provision(s) in the Tender Specifications No. TR-....., i.e. the tender document, the provision(s) of this agreement shall prevail to the extent of such conflict, and (b) two or more provisions in the tender document, the provision(s) laying down more stringent obligations on the contractor shall prevail."

4. For the work done under the scope of the CSPTCL Work Orders referred above, the CSPTCL shall pay to the Contractor a total sum of Rs. _____ (In words Rupees _____) or such other sum as may become payable in accordance with the said work order.
5. If at any time, any question, dispute or difference whatsoever arises between CSPTCL and the contractor upon, in relation with or in connection with this contract either party may forthwith give the other party a notice in writing of the existence of such question, dispute or difference and same shall be referred to the adjudication of three Arbitrators one to be nominated by CSPTCL, the other by the Contractor and third to be appointed by the two Arbitrators nominated by the parties at the commencement of arbitration proceedings and failing agreement between them, in accordance with the Arbitration and Conciliation Act 1996, the third Arbitrator so appointed shall act as the Presiding Arbitrator. The award so passed shall be binding on both the parties. The place of arbitration shall strictly be RAIPUR CG.
6. In all matters arising under out of or in relation with this agreement, the terms and conditions contained in the aforesaid Work Orders shall apply and all such matters shall be determined accordingly.
7. This agreement shall be deemed to be entered into at Raipur and all disputes and claims, if any, out of or in respect of this Agreement are to be settled at Raipur or be subject to jurisdiction of competent court situated in Chhattisgarh State.

IN WITNESS whereof the parties hereto have signed this agreement on the dates and year mentioned against their respective signature.

Signature of Witness :

1. Signature : _____
Address : _____

Signature : _____
Address : _____

Signature of Witnesses :

1. _____
2. _____

Name & Signature for Contractor

Signature
(On behalf of the Contractor)
Name : _____
Designation : _____
Seal _____

Signature
(On behalf of CSPTCL)
Name _____
Designation _____

ANNEXURE-VIII**// MAKE LIST //**

All the materials required for the work shall be supplied strictly as per the “list of Make” indicated in Proforma-III of this tender document TR-20/s&p/25. No deviation in the vendor list shall be permitted during execution of the project at any stage. The materials which are not covered in this make list shall be of reputed make with prior approval of CSPTCL.

Date :**Signature :****Name :****Designation**

Proforma-‘I’**UNDERTAKING****(Completeness of work)**

We hereby undertake to confirm that
..... with all accessories have been
completed by us is complete as specified in Schedule ____ attached with order
no. _____ dated _____ received by us.

**Signature of Authorized
Signatory with seal of the Company**

Place:-

Date :-

Proforma-‘II’**COMMISSIONING CERTIFICATE****CERTIFICATE REGARDING INSTALLATION, TESTING, COMMISSIONING AND TRAINING OF CSPTCL PERSONNAL WITH ALL ACCESSORIES FOR CLAIMING BALANCE 30% PAYAMENT**

.....(Supplied Item Name)..... with all accessories bearing S. No. _____ supplied by M/s _____ (name of firm) has been successfully installed, tested, commissioned and arranged Demonstration with training of equipment at _____ (Name of place) on _____ (Date) at _____ (Hrs.)

It is confirmed that M/s _____ have provided services towards installation, Testing, commissioning & arrange Demonstration with training of equipment with all accessories as stipulated in the Contract No. _____ Dtd. _____

Place :

Date :

Name & Designation of concerning officer
Seal

Proforma-‘III’**Make List**

S.NO.	MATERIAL	BRAND NAME
1.	M. S. Pipes	ISMT/Jindal / MSC/Apollo/SAIL/TATA
2.	G.I. Pipes	ISMT/Jindal / MSC/Apollo/SAIL/TATA
3.	Gun Metal Valves (Gate, Globe)	Kirloskar/Zoloto/HD fire/kartar
4.	CI Double flanged sluice valves & check Valves & Y- Stainer	Kirloskar/kartar/zoloto/HD fire
5.	Butterfly Valves	Kirloskar / kartar/ Zoloto / AIP/Inter valve
6.	CI double flanged non-return valves	Kirloskar/kartar/zoloto.
7.	Suction Strainer	Leader / Sant/kartar/zoloto.
8.	Sprinkler (ISI MARKED)	Spray Safe / HD / lifeguard/ Tyco
9.	Fire Hydrant Landing Valves, Fire brigade connection (ISI marked)	Minimax / lifeguard/cease fire
10.	High Velocity Spray Nozzle & QB detector	Spray Safe / HD fire/fire guard.
11.	Fire hose pipes, First Aid Hose Reel (ISI Marked)	Minimax /lifeguard.
12.	Branch Pipe, Nozzle and coupling(ISI marked)	Minimax / lifeguard
13.	Wheeled water Mist system(ISI Marked)	Minimax /lifeguard/ceasefire
14.	Pumps	KEC/CGL/Math&Platt/Lubi
15.	Motors	KEC/CGL / Engine KOEL/Lubi/Eicher
16.	Starters	Siemens / L&T / Cutler Hammer
17.	Single phasing preventor / over load Protection unit.	Siemens / L&T/Schneider
18.	Pressure Switch	Danfoss / Swizer/HD Fire/Potter
19.	Pressure Gauge	H. Gure / Fiebig
20.	Relays	L&T / Siemens/ABB/C&S/EQUIVALENT
21.	Contactors	L&T / Siemens/Schneider/C&S

22.	Control Cable(with and without fire protection)	CCI / Gloster / Havells/KEI/Polycab
23.	Moulded case circuit breakers.	L&T/ Siemens/schneider
24.	Fuse Disconnecter switch / switch fuse units.	L&T / MDS / Siemens / GE power / ABB / C&S/Schneider
25.	HRC Fuses	L&T / Siemens/Bussman/Ferraz/
26.	Ammeter, Voltmeter	Any reputed
27.	Selector switch, push button switch / emergency switch	Any reputed
28.	1.1 KV LT Cables (ISI marked) (with and without fire protection)	CCI / Gloster / Havells/Polycab/KEI
29.	Fire Alarm Panel	Any Reputed
30.	Fire electrical control panel	Any Reputed
31.	Fire Stop Mortar(UL/FM) Approved	Any reputed
32.	Cable Coating(FM) Approved	Any Reputed

Note : The drawing of 400 KV Sub-Station is Enclosed.

CHECK LIST

<u>S.No</u>	<u>ITEMS</u>	<u>REFERENCE</u>	DECLARATION Strike out which ever is not applicable
	Earnest money enclosed	Covering letter	Yes / No
1	Bidder's experience	Schedule -II	Yes/No
2	Commercial Information	Schedule -III	Yes/No
3	Deviations from technical specifications /conditions	Schedule -IVA	Yes / No
4	Deviations from Commercial specifications /conditions	Schedule -IVB	Yes / No
5	General Information	Schedule -V	Yes / No
6	Pre-Contract Integrity Pact	Annexure-I	Yes / No
7	Power of Attorney	Annexure-II	Yes / No
8	Proforma for Bank Guarantee towards Security Deposit	Annexure-III	
9	PROFORMA FOR UNDERTAKING BY THE JOINT VENTURE PARTNERS	Annexure-IV	Yes/ No
10	PROFORMA FOR POWER OF ATTORNEY FOR JOINT VENTURE	Annexure-V	Yes/ No
11	DECLARATION BY THE BIDDER	Annexure-VI	Yes/No
12	AGREEMENT	Annexure-VII	Yes/No
13	Make List	Annexure-24	Yes/ No

Date :

Name & Signature for Contractor