
PART – I

(TECHNICAL)

Tender Documents including Technical Scope & Terms and Conditions.

TENDER NO. CPP-IPR/TPT/TN/2018-19/78, dated 07/01/2018



CENTRE OF PLASMA PHYSICS-INSTITUTE FOR PLASMA RESEARCH

NAZIRAKHAT, SONAPUR-782402, KAMRUP(M), ASSAM

**TENDER DOCUMENT
FOR
OPERATION AND MAINTENANCE
OF
33/.433KV CPP-IPR OUTDOOR SUB STATION,
HT & LT SWITCH GEARS AND
415V DISTRIBUTION SYSTEMS**

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TENDER NOTICE NO.:CPP-IPR/TPT/TN/2018-19/78

Tenders are invited in two parts (Part –I Technical Bid with qualifying requirements & Part-II – Price (Commercial Bid) from the Contractors who satisfy all the following criteria for the Operation and Maintenance (O&M) services for 33/.433kV CPP-IPR Sub Station, HT and LT Switch Gears and 415V(LT) Distribution Systems.

1	Name of the Work	Operation and Maintenance of 33/.433 kV Sub Station, HT and LT Switch Gears and 415V Distribution Systems
2	Earnest Money Deposit	Rs.86,000/-
3	Qualifying Criteria	
	Eligibility Criteria	Requirement
A	The firm shall possess “Electrical Contractor License” for working in Assam issued by the competent authority.	Copy of valid Electrical Contractor license shall be submitted.
B	Bidders must have experience of O&M services for the substations of 33 kV class or above for a minimum period of three (3) years as on date of publication of the tender.(Copy of the satisfactory performance certificate to be enclosed)	Copy of relevant purchase orders/work orders with technical details and Completion certificate / performance certificate must be submitted.
C	Bidders must have at least one (01) ongoing O&M services for substations of 33 kV class or above as on date of publication.	Copy of relevant purchase order/work order with technical details must be submitted.
D	Bidders must have satisfactorily executed O&M services for substations of 33 kV class or above in the last five (05) years as on date of publication of the tender, at least one (01) work with a minimum contract value of 34 lakhs OR two (02) works each of minimum contract value of 26 Lakhs OR three (03) works each of minimum contract value of 17 Lakhs	Copy of purchase order/work order and completion certificate with technical details, issued by client must be submitted.
E	The firm should be a profit making organization for the last two (02) financial years	Audited financial statement (FY16-17 and FY17-18) of the accounts for the above financial years as a proof must be submitted.
4	Tender Fee	Rs. 300.00 (Three hundred only)In form of DD only)
5	Period of Contract	12 calendar months, may be extended for a further period up to one more year depending upon the performance of the contractor and

		directives of CPP-IPR
6	Date of issue of the Tender	Tender documents Can be collected from CPP-IPR or can be downloaded from the institute's website www.cppipr.res.in from 10.01.2019 to 04.02.2019
7	Clarification regarding Tender	10.01.2019 to 05.02.2019
8	Last date & time of submission of Tender	12.02.2019, 1.00 P.M.
9	Date & Time of opening Technical Bid	12.02.2019, 3.30 P.M.
10	Date of opening of Price Bid	Will be declared later on

NOTE: For this tender of O&M services imply[a] providing all year, round the clock (24/7) operation services with personnel in three-shift duty, [b] routine maintenance and testing services as per technical details mentioned in section-IV and [c] break down maintenance services [d]Operation of DG sets

SECTION – I

INSTRUCTIONS TO TENDERERS

1. Tender Fees will accepted by way of Demand Draft issued by any Nationalized Bank/*scheduled Banks, issued in favour of "I.P.R. A/C CPP" and payable at Sonapur, if any vendor wants to download the tender from CPP-IPR website can sent the tender fees (In DD form) along with the tender documents.
***Only HDFC,ICICI,AXIS and IDBI bank shall be considered as scheduled banks.**
2. Security Deposit: 10% of the Contract Value.
3. Assessment of the contractor's qualification: All bids received shall be scrutinized for eligibility as per tender criteria before any further technical consideration.
4. Any document related to the contract terms and conditions & regarding scope of work can be clarified from Purchase Section, CPP-IPR before the Tender (Part-I) closing.
5. The bidders are advised to contact the Engineer-in-Charge (Mr. H C Hazarika) on the 24/01/2019 to inspect and survey the site and its surroundings and satisfy themselves before submitting their tender as to the form and nature of the site, the means of access to the site etc.. In general, bidders shall themselves, obtain all necessary information as to risks, contingencies and other circumstances which may influence or effect their tender. A bidder shall be deemed to have full knowledge of the site, whether he inspects it or not and no extra claims due to any misunderstanding or otherwise shall be allowed.
6. Submission of tender by a bidder implies that he has read this notice and all other Tender documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant etc. will be issued to him by the Centre and local conditions and other factors bearing on the execution of the works.

7. The bidder should quote his rates in the Price Bid of the tender.
8. The Bidder shall submit interest free Earnest Money Deposit (EMD) for Rs.86,000/- (Eighty Six thousand only) by way of Demand Draft of any Nationalized Bank/*scheduled Banks only, issued in favour of "I.P.R. A/C CPP" and payable at Sonapur.
***Only HDFC,ICICI,AXIS and IDBI bank shall be considered as scheduled banks.**
9. Part II (Price Bid) of the Tender shall be opened at a later stage in the presence of only those bidders who qualify in the technical and other evaluations.
10. **Security Deposit:** The successful contractor will have to furnish to the Centre an interest free security deposit for 10% (Ten percent) of the respective order value in the form of Bank Guarantee of an equivalent amount from a nationalized Bank/*Scheduled bank within 21 days from the date of LOI/Work Order valid through the tenure of entire contract. The Security deposit shall be forfeited in case the tenderer who is awarded the contract does not commence the work within the time limit specified or fails to perform within the stipulated guidelines of the Centre or fail to comply with any of the terms and conditions in the Work Order/contract, including satisfactory handing over of the plant to the new contractor.
***Only HDFC,ICICI, AXIS and IDBI bank shall be considered as scheduled banks.**
11. The bidder shall submit the tender who satisfies each and every condition laid down in the tender document, failing which, tender is liable to be rejected.
12. The Centre does not bind itself to accept the lowest or any tender quotation or to give any reasons for their decision.
13. CPP-IPR reserves the right of accepting in whole or any part of the tender and the bidders shall be bound to perform the same at their quoted rates.
14. The Tender Notice shall form part of this tender document.
15. The contract persons deployed for the job will have to put a minimum continuous 12 months service and they will be authorized for working on HV/LV installation at CPP-IPR. In case of any lapses in the continuous service, penalties will be charged as mentioned in this document.
16. This contract is for providing Operation & Maintenance of 33/.433kV Sub Station including Switch yard, HT< Switch Gear, 415V Distribution System and DG sets. The contractor is advised to take into consideration all types of taxes and provision of various Acts applicable to such type of contracts. No claim for additional payments over and above the rates quoted by the party will be entertained by the Centre either during the course of contract or after its completion.
17. The tenders submitted shall remain valid for a Period of 180 days from the date of opening Part-I of the tender. The bidder shall not be entitled during the said period of validity to revoke or cancel his tender or vary the tender given or any item thereof. In case of bidder revoking or canceling his tender, varying any terms in regard thereof, the earnest money paid by the bidder along with the tender shall be forfeited by CPP-IPR.

SECTION – II

GENERAL CONDITIONS OF CONTRACT

I. INTERPRETATION AND DEFINITIONS

Definitions

- a) The Owner/ Centre shall mean the "Centre of Plasma Physics-Institute for Plasma Research" (CPP-IPR) having its registered office at Nazirakhat, Sonapur-782402 and include their legal representatives, successors and permitted assigns.
- b) The "Contract" shall mean an agreement where a proposal has been accepted and shall include the notice inviting the tender, the tender and acceptance thereof and the formal agreement, if any, executed between the Centre of Plasma Physics-Institute for Plasma Research and the Contractor together with the documents referred to therein including these conditions with appendices and any special conditions; the specifications, designs, drawings, schedule of quantities with rates and amounts. All these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- c) The "Contractor" shall mean the individual or registered firm or incorporated company undertaking the works and shall include legal heir of such individual or persons composing such firm or company or successors of such firm or company as the case may be and permitted assigns of such individual or firm or company.
- d) The " Contract Sum" shall mean:-
 - (i) in the case of "Lumpsum Contracts" the sum for which the tender is accepted.
 - (ii) in the case of " Item Rate Contracts" the cost of the works arrived at after extension of the quantities shown in Schedule of Quantities by the item rates quoted by the tenderer for the various items.
- e) A "Day" shall mean a day of 24 hours from mid-night to mid-night irrespective of the number of hours worked in that day.
- f) "Engineer-in-Charge" shall mean the Engineering Officer appointed by CPP-IPR or his duly authorized representative who shall direct, supervise and be in charge of the works for purposes of this Contract.
- g) "Excepted Risks",are risks due to riots (other than that among Contractor's employees) and civil commotion (in so far as both these are uninsurable), war whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of Government, damage from aircrafts, acts of God such as earthquake, lightning and unprecedented floods and other causes over which the Contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by the "Centre" of the part of Works in respect of which a certificate of completion has been issued.

- h) "Market Rate" shall be the rate as decided by the Engineer-In-Charge on the basis of the cost of materials and labour at the Site where the work is to be executed.
- i) "Temporary Works" shall mean all temporary works of every kind required in or about the execution, completion or maintenance of the Works.
- j) "Urgent Works" shall mean any urgent measures which, in the opinion of the Engineer-in-Charge, become necessary during the process of the work to obviate risk of accident or failure or which become necessary for security.
- k) **A "Week" shall mean seven days without regard to the number of hours worked in any day in that week.**
- l) The "Works" shall mean the works to be executed in accordance with the Contract or part (s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the Contract.

II. SCOPE AND PERFORMANCE

1. Contract Documents:

- a. The Contractor shall be furnished, free of charge, two certified true copies of the Contract Documents and the schedule of quantities and rates and of all further drawings which may be issued during the progress of the works. He shall keep one copy of these Documents on the Site in good order, & the same shall at all reasonable times be available for inspection and use by the Engineer-in-Charge, his representative or by other Inspecting Officers.
- b. None of these Documents shall be used by the Contractor for any purpose other than that of this Contract.

2. Works to be carried out:

a. General:

The Contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The Contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge. The works to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plant and equipment, and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include waste on materials, carriage and cartage, carrying in return of empties, hoisting, setting, fitting and fixing in position and all other labour necessary in and for the full and entire execution and completion as aforesaid in accordance with good engineering practice and recognized principles.

In the case of any class of work for which there is no such specifications as referred to above, such work shall be carried out in accordance with Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications. In case there are no such specifications as referred to the above the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

b. Engineering Data :

The furnishing of engineering data by the Contractor shall be in accordance with the Schedule as specified in the technical specifications. The review of these data by the Engineer will cover only general conformance of the data to the specifications and documents. This review and/or approval by the Engineer shall not be construed by the Contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements specified under these specifications and documents.

3. **Inspection Site**

The Contractor shall inspect and survey the Site and its surrounding and shall satisfy himself before uploading his tender as to the form and nature of the Site, the quantities and nature of work and material necessary for the completion of the works and the means of access to the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his tender. No extra charges consequent on any misunderstanding or otherwise shall be allowed.

4. **Sufficiency of Tender**

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance (up to defect liability period) of the works.

5. **Discrepancies and Adjustment of Errors**

The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawing being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

5.1. In the case of discrepancy between the Specifications and/or the Drawings, the following order of preference shall be observed:

- Particular Specification and Special Conditions, if any.
- Drawings
- General Specifications.

- 5.2. If there are varying or conflicting provisions made in any one document forming part of the Contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document.
- 5.3. Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the Contract.
- 5.4. If on check there are found to be differences between the rates given by the Contractor in words and figures or in the amount worked out by him in the Schedule of Quantities and general summary, the same shall be adjusted in accordance with the following:
 - (a) In the event of a discrepancy between description in words and figures quoted by a tenderer, the description in words shall prevail.
 - (b) In the event of an error occurring in the amount column of Schedule of Quantities as a result of wrong extension of the unit rate and quantity, the unit rate shall be regarded as firm and extension shall be amended on the basis of the rate.
 - (c) All errors in totaling in the amount column and in carrying forward totals shall be corrected.
 - (d) The totals of various sections of Schedule of Quantities amended shall be carried over to the General Summary and the tendered sum accordingly. The tendered sum so altered shall, for the purpose of tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer. Any rounding off of the Quantities or in sections of Schedule of Quantities or in General Summary by the tenderer shall be ignored.

6. **Suspension of Works**

- 6.1. The Contractor shall, on receipt of the order in writing of the Engineer-in-Charge, suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-In-Charge may consider necessary for any of the following reasons:
 - (i) on account of any default of the Contractor, or
 - (ii) for proper execution of the Works or part thereof for reasons other than the default of the Contractor; or
 - (iii) for safety of the works or part thereof,

The Contractor shall, during such suspension, properly protect and secure the Works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

- 6.2. If the suspension is ordered for reasons (ii) and (iii) in Sub para (6.1) above,
 - (i) The Contractor shall be entitled to the proportionate amount of operation and maintenance charges.

7. Time Extension for Delay

- 7.1. The time allowed for execution of the works as specified or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence, latest, from the 5th day after the date on which the Centre issues written orders to commence the work or such time period as mentioned in the Letter of Award or from the date of handing over of site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid; the Centre shall without prejudice to any other right or remedy be at liberty to forfeit the earnest money absolutely.
- 7.2. As soon as possible after the Contract is concluded the Engineer-in-charge and the Contractor shall agree upon a Time and Progress Chart. The Chart shall be prepared in direct relation to the time stated in the Contract document for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. Such defined intermediate milestones will form the basis for monitoring the progress and to initiate such corrective/penal measures as may be decided by the Engineer-in-charge which shall be final binding. Further to ensure good progress during the execution of the work, the Contractor shall in all cases in which the time allowed for any work exceeds 30 days (save for special jobs) complete 1/8th of the whole of the work before 1/4th of the whole time allowed in the Contract has elapsed; 3/8th of the work before one half of such time has elapsed and 3/4th before 3/4th of such time has elapsed.
- 7.3. If the work(s) be delayed by:-
- (a) Force majeure, or
 - (b) Abnormally bad weather, or
 - (c) Serious loss or damage by fire, or
 - (d) Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - (e) Delay on the part of other contractors or tradesmen engaged by the Centre in executing work not forming part of the Contract, or
 - (f) Non-availability of stores, which are the responsibility of the Centre to supply or
 - (g) Any other cause which, in the absolute discretion of CPP-IPR & is beyond the Contractor's control; then, upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.
- 7.4. Request for extension of time, to be eligible for consideration shall be made by the Contractor in writing, latest, within four days of the happening of the event causing delay. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

- 7.5 In any such case CPP-IPR may give a fair and reasonable extension of time or completion of the work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 4 days of the date of receipt of such request by the Engineer-in-Charge.

8. **Tools and Equipment**

- 8.1. The Contractor shall arrange at his own expense all tools and equipment (here in after referred to as T&E) required for execution of the work, except otherwise mentioned in this document, will be given to him on hire (if the same can be spared) by the Centre at rates fixed by the Centre from time to time. In case the Contractor shall indicate his requirements at the time of uploading his tender. The Centre's T&E hired to the Contractor shall be conveyed by him at his expense from the place of issue to the place of work and back.
- 8.2. If the Contractor requires any item of T&E on hire from the Centre over and above the requirements indicated by him at the time of uploading his tender, the Centre will, if such item is available, hire it to the Contractor at a rate to be fixed by the Centre.
- 8.3. When T&E is hired on daily rates, the period of hire will be reckoned from the commencement of the day of issue up to the end of the day of return (including all holidays) irrespective of the actual hour of issue and return. Daily hire charges will be based on eight working hours or part thereof per day and for any additional use of T&E at rates fixed for the purpose. The Contractor will be exempted from levy of any charges for the number of days he is called upon in writing by the Engineer-in-charge to suspend execution of the work, provided the Centre's T&E in question has, in fact remained idle with the Contractor due to suspension.
- 8.4. The Contractor shall be responsible for care and custody of the Centre's T&E during the period the Centre's T&E remain with him and any damage (fair wear and tear excepted) to any of the equipment(except for Excepted Risks, provided always that the Contractor has taken precautions necessary to protect it from such risks) shall be made good at the Contractor's expense to the satisfaction of the Engineer-in-Charge unless such damage is caused because of negligence of crew provided by the Centre.
- 8.5. The Centre gives no guarantee in respect of output of its T&E hired to the Contractor and no reduction in rates or any compensation shall be allowed on the ground that out turn or performance of the Centre's T&E was not to the Contractor's expectation.
- 8.6. The Centre's T&E hired to the Contractor shall be returned at the place of issue (unless otherwise directed) by the Contractor to the Engineer-in-charge on completion of the work or section of the work or on termination of work or earlier on termination of the hire by the Centre as hereinafter provided on written notice by the Engineer-in-Charge. The Centre shall be entitled to terminate the hire on two days notice without assigning any reason whatsoever and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever on account of termination of hire of the Centre's T&E by the Centre.
- 8.7. When the T&E is hired on hourly rates, a Log Book for recording hours during which every item of the Centre's T&E issued to the Contractor has worked each day shall be

maintained by the member of the crew in-charge thereof or any representative of the Engineer- in-Charge appointed on that behalf and shall be daily attested by the Contractor or his authorized representative. In case the Contractor contests correctness of any entry and/or fails to sign the Log Book, the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges shall be calculated in accordance with the entries in the Log Book. Hourly rate specified shall be charged for every hour or part thereof.

- 8.8. The hire charges payable by the Contractor shall be recovered from the Contractor's bills.

9. **Materials**

9.1 Materials to be supplied by the Contractor

The Contractor shall, at his own expense, provide all materials required for the works other than those which are to be supplied by the Centre.

- (a) All materials to be provided by the Contractor shall be in conformity with the specifications laid down in the Contract and the Contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of Engineer-in-Charge that the materials so comply.
- (b) The Contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials proposed to be used in the works. The Engineer-in-Charge shall, within seven days of supply of samples or within such further period as he may require, intimate to the Contractor in writing, whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the specifications laid down in the Contract.
- (c) The Engineer-in-Charge shall have full powers to require removal of any or all of the materials brought to Site by the Contractor which are not in accordance with the Contract specifications or do not conform in character or quality to samples approved by him. In case of default on the part of the Contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed by other means. The Engineer-in-Charge shall have full powers to procure other proper materials to be substituted for rejected materials and in the event of the Contractor refusing to comply, he may cause the same to be supplied by other means. All costs, which may attend upon such removal and/or substitution shall be borne by the Contractor.
- (d) The Contractor shall indemnify the Centre, or its employee or agent against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or materials or part thereof included in the Contract. In the event of any claim being made or action being brought against the Centre or its employees or agent in respect of any such matters as aforesaid, the Contractor shall be notified thereof.

Provided that such indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the Centre; but the Contractor shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursed to the Contractor only if the use was the result of any drawings and/or specifications issued after submission of the tender.

- (e) All charges on account of octroi, royalty, terminal or sales tax, GST and other duties on materials obtained for the works from any source (excluding materials supplied by the Centre) shall be borne by the Contractor.

If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Centre and does not any time become payable by the Contractor to the Government/ Local authorities in respect of any material used by the Contractor in the works then in such a case, it shall be lawful to the Centre and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the Contractor.

9.2 Materials to be supplied by the Centre

- (a) Materials to be supplied by the Centre are specified in relevant items in Section V of this document. For the above, the contractor shall give a recommended list of items and their quantities. The Centre shall provide the same in a reasonable time. Such materials shall be supplied for the purposes of the Contract only. Proper accountability for the materials issued to him to the satisfaction of the Engineer-in-charge, certify that balance of materials supplied is available at Site.
- (b) For the Material mentioned in Section V which the Centre has agreed to supply to the Contractor, he shall give a reasonable notice in writing of his requirements to the Engineer-in-charge. Such materials shall be supplied for the purpose of the Contract only. Proper accountability for the materials issued to him to the satisfaction of the Engineer-in-charge, certify that balance of materials supplied is available at Site.
- (c) Surplus materials returned by the Contractor shall be credited to him by the Engineer-in-Charge at rates not exceeding those at which these were originally issued to him less handling and storage charges, if any, and also after taking into consideration any deterioration or damage which may have been caused to the said materials whilst in the custody of the Contractor.
- (d) The said action under this clause is without prejudice to the right of the Centre to take action against the Contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

9.3. General

- (a) Materials required for the works, whether brought by the Contractor or supplied by the Centre, shall be stored by the Contractor only at places

approved by the Engineer-in-Charge. Storage and safe custody of material shall be the responsibility of the Contractor.

- (b) (i) The Engineer-in-Charge shall be entitled to have tests carried out as specified in the Contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer-in-Charge may require for the purpose. If no tests are specified in the Contract and such tests are required by Engineer-in-Charge, the Contractor shall provide all facilities required for the purpose and the Centre shall bear the cost of material and test charges, only where the tests disclose that the said materials are in accordance with the provisions of the Contract.
- (ii) In addition, the Contractor shall perform/submit at his own cost such test/samples as may be required by the Engineer-in-Charge out of materials issued by the Centre, except for the cost of materials used in such tests/samples.
- (c) The Centre's officials concerned with the Contract shall be entitled at any time to inspect and examine any materials intended to be used in or on the works, either on the Site or at factory or workshop or other place(s) where such materials are assembled, fabricated, manufactured or at any place(s) where these are lying or from which these are being obtained and the Contractor shall give such facilities as may be required for such inspection and examination.
- (d) All materials brought to the Site shall become and the property of the Centre and shall not be removed off the Site without the prior written approval of the Engineer-in-Charge. But, whenever the works are finally completed and advance, if any, in respect of any such material is fully recovered, the Contractor shall at his own expense forthwith remove from the Site all surplus material originally supplied by him and upon such removal, the same shall revert in and become the property of the Contractor.

10. Labour

- 10.1. The Contractor shall employ labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-Charge. The Contractor shall not employ in connection with the works any person who has not completed eighteen years of age.
- 10.2. The Contractor shall furnish to the Engineer-in-Charge, fortnightly, a distribution return of the number and description by trades of the workers employed on the works during maintenance.

The Contractor shall also submit on the 4th and 19th of every month to the Engineer-in-charge a true statement showing in respect of the preceding fortnight, the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them.

The number of female workers who have been allowed maternity benefit as provided in the Maternity Benefit Act, 1961 or Rules made there under and the amount paid to them.

- 10.3. The Contractor shall pay to labour employed by him either directly or through sub-contractors wages in accordance with the rules, regulations and the law in force relating to the payment of wages for the workers.
- 10.4. The Contractor shall comply with the provisions of The Payment of Wages Act, 1936, The Minimum Wages Act, 1948, The Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, The Industrial Disputes Act, 1947, The Maternity Benefit Act, 1961, The Mines Act, 1952, The Contract Labour (Regulation & Abolition) Act,1970, or any modifications thereof or any other law relating thereto and rules framed there under from time to time.
- 10.5. The Contractor shall be liable to pay his contribution and the employees contribution to the State Insurance Scheme in respect of all labour employed by him for the execution of the Contract, in accordance with the provisions of "The Employees State Insurance Act, 1948" as amended from time to time. In case the Contractor fails to submit full details of his account of labour employed and the contribution payable, the Engineer-in-Charge shall recover from the running bills of Contractor an amount of contribution as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees State Insurance.
- 10.6. The Engineer-in-Charge shall, on a report having been made by an Inspecting Officer as defined in the Contractor's Labour Regulations, have the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker(s) by reason of non-fulfillment of the conditions of the Contract for the benefit of worker(s),non-payment of wages or of deductions made from his or their wages which are not justified by the terms, of the Contract or non-observance of the said Contractors Labour Regulations.
- 10.7. In every case in which by virtue of the provisions sub-section(1) of Section 12, of The Workmen's Compensation Act,1923, the Centre is obliged to pay compensation to a workman employed by the Contractor, in execution of the works, the Centre will recover from the Contractor the amount of the compensation so paid, and, without prejudice to the rights of the Centre under subsection (2) of Section 12, of the said Act, the Centre shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Centre to the Contractor whether under this contract or otherwise. The Centre shall not be bound to contest any claim made against it under sub-section(1) of Section 12 of the said Act, except on the written request of the Contractor and upon his giving to the Centre full security for all costs for which the Centre might become liable in consequence of contesting such claim.
- 10.8 Compliance and Default
 - 10.8.1. In the event of the Contractor committing a default or breach of any of the

provisions of the aforesaid Contractor's Labour Regulations as amended from time to time or furnishing any information or submitting or filling any Form/ Register / Slip under the provisions of these Regulations which is materially incorrect, then on the Report of the Inspecting Officer as defined in the Contractor`s Labour Regulations, the Contractor shall without prejudice to any other liability pay to the Centre a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filling, such materially incorrect statement and in the event of the Contractor's default continuing in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of five percent of the estimated cost of the works put to tender. The Engineer-in-charge shall deduct such amount from bills or security deposit of the Contractor. The decision of the Engineer-in-Charge in this respect shall be final and binding.

10.8.2. Contractor shall at his own expense comply with or cause to be complied with Model Rules for Labour Welfare as appended to these conditions or rules framed by the Government from time to time for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case the Contractor fails to make arrangements as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost thereof from the Contractor.

10.8.3. The Contractor shall at his own expense arrange for the safety provisions as appended to these conditions (Safety Code) or as required by the Engineer-in Charge in respect of all labour directly or indirectly employed for performance of the works and shall provide all facilities in connection therewith. In case the Contractor fails to make arrangements and provide necessary facilities as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost from the Contractor.

- i. Failure to comply with Model Rules for Labour Welfare, Safety Code on the provisions relating to report on accidents and to grant of maternity benefits to female workers shall make the Contractor liable to pay to the Centre as the penalty an amount not exceeding Rs.200/- for each default or materially incorrect statement.

The decision of the Engineer-in-Charge in such matters based on reports from the Inspecting Officers as defined in the Contractor's Labour Regulation as appended to these conditions shall be final and binding and deduction(s) for recovery of such penalty may be made from any amount payable to the Contractor.

11. Possession of Site

11.1 The Contractor shall not be permitted to enter on (other than for inspection purposes) or take possession of the site until instructed to do so by the Engineer-in-Charge in writing. The portion of the Site to be occupied by the Contractor shall be defined and /or marked on the Site Plan, failing which these shall be indicated by the Engineer-in-Charge at site and the Contractor shall on no account be allowed to extend his operations beyond these areas.

11.2. The Contractor shall provide, if necessary or if required on the Site, all temporary access thereto and shall alter, adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and as and when ordered by the Engineer-in-Charge and make good all damage done to the Site.

12. **Setting out the works**

The Engineer-in-Charge shall supply proper drawings and other information necessary to enable the Contractor to set out the works and the Contractor shall set out the works and be responsible for accuracy of the same. He shall amend at his own cost and to the satisfaction of the Engineer-in-Charge any error found at any stage which may arise through inaccurate setting out unless such error is based on incorrect data furnished in writing by the Engineer-in-Charge, in which case the cost of rectification shall be borne by the Centre. The Contractor shall protect and preserve all bench marks used in setting out the works till end of the Defects Liability Period unless the Engineer-in-Charge directs their earlier removal.

13. **Site Drainage**

All water which may accumulate on the Switchyard during the progress of the works, or in trenches and excavations, from other than the Excepted Risks shall be removed from the Switchyard and other areas to the satisfaction of the Engineer-in-Charge and at the Contractor's expense.

14. **Nuisance**

The Contractor shall not at any time do, cause or permit any nuisance on Site or do anything which shall cause unnecessary disturbance or inconvenience to CPP-IPR employees or occupants of other properties near the Site and to the general public.

15. **Materials obtained during maintenance**

Materials of any kind obtained from dismantling of a structure, excavation on the Site etc. shall remain the property of the Centre and shall be disposed off as the Engineer-in-Charge may direct.

16. **Contractor's Supervision**

The Contractor shall either himself supervise the execution of the Works or shall appoint a competent agent approved by the Engineer-in-Charge. If the Contractor has himself not sufficient knowledge and experience to be capable of receiving instructions or cannot give his full attention to the works, the Contractor shall at his own expense, employ as his accredited agent an engineer approved by the Engineer-In-Charge. Orders given to the Contractor's agent shall be considered to have the same force as if these had been given to the Contractor himself. If the Contractor fails to appoint a suitable agent as directed by the Engineer-in-Charge, the Engineer-in-Charge shall have full powers to suspend the execution of the works until such date as a suitable agent is appointed and the Contractor shall be held responsible for the delay so caused to the works.

17. **Inspection and Approval**

17.1. All works embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorized representative when such stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof.

17.2. No work shall be covered up or put out of view without the approval of the Engineer-in-Charge or his authorized representative and the Contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examination of foundations before permanent work is placed there on. The Contractor shall give due notice to the Engineer-in-Charge or his authorized representative whenever any such work or foundation is ready for examination and the Engineer-in-Charge or his representative shall without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations. In the event of the failure of the Contractor to give such notice, he shall, if required by the Engineer-in-Charge, uncover such work at the Contractor's expense.

17.3. The Engineer-in-Charge or his representative shall have powers at any time to inspect and examine any part of the Works and the Contractor shall give such facilities as may be required for such inspection and examination.

18. **Duties and Powers of Engineer-in-Charge's Representative**

18.1. The duties of the representative of the Engineer-in-Charge are to watch and supervise the works and to test and examine any materials to be used or workmanship employed in connection with the works.

18.2. The Engineer-in-Charge may from time to time, delegate to his Representative any of the powers and authorities vested in the Engineer-in-Charge Any written instruction or written approval given by the Representative of the Engineer-in-Charge to the Contractor shall be taken as if same is issued by the Engineer-in-Charge himself.

19. **Removal of Workmen**

The Contractor shall employ in and about the execution of the Works only such persons as are skilled and experienced in their several trades and the Engineer-in-Charge shall be at liberty to object to and require the Contractor to remove from the works any person employed by the Contractor in or about the execution of the Works who, in the opinion of the Engineer-in-Charge, misconducts himself or is incompetent or negligent in the proper performance of his duties and such person shall not be again employed upon the Works without permission of the Engineer-in-Charge.

20. **Compensation for Delay**

If the Contractor fails to maintain the required progress to complete the work and clear the site on or before the Contract or extended date of completion, the Contractor shall, without prejudice to any other right or remedy of the Centre on account of such breach, pay as agreed

compensation amount calculated as stipulated below or such smaller amount as be fixed by CPP-IPR on the Contract Value of the work for every week that the progress remains slow that the work remains incomplete.

21. Defects Liability Period

The Contractor shall be responsible to make good and remedy at his own expense within such period as may be stipulated by the Engineer-in-Charge, any defect which may develop or may be noticed before the expiry of the contract period hereto from the certified date of completion and intimation of which has been sent to the Contractor within seven days of the expiry of the said period by a letter sent by hand delivery or by registered post.

22. Contractor's Liability, Insurance and Indemnity

22.1. The Contractor shall indemnify and keep indemnified the Centre against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out or in consequence of the operation & maintenance works and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Centre against any compensation or damage caused by the Excepted Risks/ Third Party Liability /risks.

22.2. The Contractor shall at all times indemnify the Centre against all claims, damages or compensation under the provisions of The Payment of The Wages Act,1936, The Minimum Wages Act, 1948.The Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, The Industrial Disputes Act, 1947 and The Maternity Benefit Act, 1961 or any modifications thereof or any other law relating thereto and rules made there under from time to time or as a consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the Contractor or not, save and except where such accident or injury has resulted from any act of the Company/ Centre, his agents or servants, and also against all costs, charges and expenses of any suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the Contractor be paid to compromise or compound any claim. Without limiting his obligations and liabilities as above provided, the Contractor shall insure against all claims, damages or compensation payable under The Workmen's Compensation Act, 1923 or any modification thereof or any other law relating thereto.

23. Facilities to other Contractors

The Contractor shall, in accordance with the requirements of the Engineer-in -Charge, afford all reasonable facilities to other contractors engaged contemporaneously on separate contracts in connection with the Works and for departmental labour and labour of any other authorized agency or statutory body which may be employed at the Site on execution of any work not included in the Contract or of any contract which the Centre may enter into in connection with or ancillary to the Works.

24. **Sub-Contracts**

The Contractor shall not sub-contract any part of the scope without the prior written approval of the CPP-IPR.

25. **Instructions and Notices**

- 25.1. Subject as otherwise provided in this Contract, all notices to be given on behalf of the Centre and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any Officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.
- 25.2. All instructions, notices and communications, etc. under the Contract shall be given in writing and if sent by registered post to the last known place of abode or business of the Contractor, shall be deemed to have been served.
- 25.3. The Contractor or his Agent shall be in attendance at the Site(s) during all working hours and shall superintend the execution of the Works with such additional assistance in each trade as the Engineer-in-Charge may consider necessary. Orders given to the Contractor's Agent shall be considered to have the same force as if they had been given to the Contractor himself.

26. **Foreclosure of Contract**

- 26.1. If at any time after acceptance of the tender ,during execution of work, the Centre shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the authorized person of the Centre shall give notice in writing to that effect to the Contractor and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- 26.2. The Contractor shall be paid at contract rates full amount for works executed at Site and, in addition, a reasonable amount as certified by the Engineer-in-Charge, but not more than the amount proportionates to the value of balance work for the items hereunder mentioned which could not be utilized on the work to the full extent because of the foreclosure:
 - (a) For Contractor's materials not retained by the Centre, reasonable cost of transporting such materials from Site to Contractor's permanent stores or to his other works, whichever is less. If materials are not transported to either of the said places, no cost of transportation shall be payable.
 - (b) If any materials supplied by the Centre are rendered surplus, the same except normal wastage shall be returned by the Contractor to the Centre at rates not exceeding those at which these were originally issued less storage charges, if any and allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the Contractor.

- (c) Reasonable compensation for transfer of T&E from to Contractor's permanent stores or to his other works, whichever is less. If T&E are not transported to either of the said places, no cost of transportation shall be payable.
- (d) Reasonable compensation for repatriation of the Contractor's site staff and labour to the extent necessary. The compensation amount mentioned above be in excess of 2% of the cost of works remaining incomplete on the date of closure. The Contractor shall, as required by the Engineer-in-charge, furnish to him books of account, wage books, time sheets and other relevant documents as may be necessary to enable him to certify the reasonable amount payable under this clause.
- (e) The amount of Security Deposit shall be worked out based on redefined value of contract in case of such foreclosure.

27. **Termination of Contract on Death**

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies, then, unless the Centre is satisfied that the legal representatives of the individual Contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract, the Centre shall be entitled to cancel the Contract as to its incomplete part without the Centre being in any way liable to payment of any compensation to the estate of the deceased Contractor and /or to the surviving partners of the Contractor's firm on account of the cancellation of the contract. The decision of the Centre that the legal representatives of the deceased Contractor or the surviving partners of the Contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties. In the event of such cancellation, the Centre shall not hold the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable for damages for not completing the Contract.

28. **Determination/Cancellation of Contract in Full or Part**

28.1. If the Contractor:

- (a) at any time makes default in proceeding with the works with due diligence and continues to do so after a notice in writing of 7 days from the Engineer-in-Charge; or
- (b) commits default in complying with any of the terms and conditions of the Contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- (c) fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or

- (d) shall offer, or give or agree to give to any person in the Centre's service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or having done or forborne to do any act in relation to the obtaining or execution of this or any other Contract for the Centre; or
 - (e) shall enter into a contract with the Centre in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to the Accepting Authority/Engineer-in-Charge; or
 - (f) shall obtain a Contract with the Centre as a result of wrong tendering or other non-bonafide methods of competitive tendering; or
 - (g) being an individual, or if a firm, any partner thereof, shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for purpose of amalgamation or reconstruction) under any insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
 - (h) being a company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
 - (i) shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
 - (j) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge; the Accepting Authority may, without prejudice to any other right to remedy which shall have accrued or shall accrue thereafter to the Centre, by written notice determine/ cancel the Contract as a whole or only such items of work in default from the Contract.
- 28.2. On determination/ cancellation of the Contract in full or in part ,the Accepting Authority shall determine what amount, if any, is recoverable from the Contractor for completion of works or part of the works or in case the works or part of the works is not completed, the loss or damage suffered by the Centre. In determining the amount, credit shall be given to the Contractor for the value of the work executed by him upto the time of cancellation, the value of Contractor`s material taken over and

incorporated in the work, and use of tools, tackles and machinery belonging to the Contractor.

- 28.3. Any excess expenditure incurred or to be incurred by the Centre in completing the works or part of the works or the loss or damage suffered or may be suffered by the Centre as aforesaid after allowing such credit shall be recovered from any money due to the Contractor on any account, and if such money is not sufficient the Contractor shall be called upon in writing to pay the same within 30 days.
- 28.4. If the Contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to retain any or all of the Contractor's unused materials, till the balance outstanding from the Contractor is recovered in accordance with the provisions of the Contract.
- 28.5. In the event of anyone or more of the above courses being adopted by the Engineer-in-Charge, the Contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the Contract.

And in case action is taken under any of the provision aforesaid the Contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this Contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid so certified.

29. **Liability for Damage, Defects or Imperfections and Rectifications**

If the Contractor or his workman or employees shall injure or destroy any part of the Centre's property or if any damage shall happen to the any equipment while the work is in progress, the Contractor shall, upon receipt of a notice in writing, in that behalf make the same good at his own expense. If it shall appear to the Engineer-in-Charge or his Representative at any time during or prior to the expiration of the Defects Liability Period, that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the Contractor for execution of the work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the Contract, or that any defect, shrinkage or other faults have appeared in the work arising out of defective or improper materials or workmanship, the Contractor shall, upon receipt of a notice in writing in that behalf from the Engineer-in-Charge, forthwith rectify or remove and re-construct the work so specified in whole or in part, as the case may require or as the case may be and/or remove the materials or articles so specified and provide other proper and suitable materials or articles at his own expense, notwithstanding that the same may have been inadvertently passed, certified and paid for and in the event of his failing to do so within the period to be specified by the Engineer-in-Charge in his notice aforesaid, the Engineer-in-Charge may rectify or remove and re-execute the work and/or remove and replace with others the materials or articles complained of, as the case may be, by other means at the risk and expense of the Contractor. In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to

the safety and utility of the item and the structure or he may reject the work outright without any payment.

30. Urgent Works

If any urgent work (in respect whereof the decision of the Engineer-in-Charge shall be final and binding) becomes necessary and the Contractor is unable or at once to carry it out, the Engineer-in-Charge may by his own or other workmen carry it out as he may consider necessary. If the urgent work shall be such as the Contractor is liable under the Contract to carry out at his cost, all expenses incurred on it by the Centre, then shall be recoverable from the Contractor and be adjusted or set off against any sum payable to him.

31. Changes in Constitution

Where the Contractor is a partnership firm, prior approval in writing of the Centre Authority shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu Undivided Family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership firm which would have the right to carry out the work hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained, the Contract shall be deemed to have been assigned in contravention of point no. 27 hereof and the same action may be taken and the same consequences shall ensue as provided for in the said point 27.

32. Arbitration

Except where otherwise provided for in the Contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein before contained in this Contract or as to the quality of the workmanship or materials used on the work or arising out of the terms and conditions of the Contract whether during the progress of the work or after the completion or abandonment thereof, at the request of the aggrieved party in writing, shall be referred to the sole arbitration of the person nominated and appointed by the competent authority of the Centre in respect of the contracts entered for and on behalf of the Centre, by any Officer/Authority of the Centre.

The parties of the Contract agree that it will be no objection to any such appointment that the sole arbitrator so appointed is a Centre Employee. The Sole Arbitrator to whom the matter is originally referred being transferred or having vacated his office or being unable to act for any reason whatsoever, the competent authority of the Centre, as aforesaid at the time of such transfer, vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the Contract. Such person as and when appointed shall proceed with the reference from the stage at which it was left by his predecessor in accordance with the rules, regulations and the law of the land. It is also a term of this Contract that no person other than a person appointed by competent authority of the Centre, as aforesaid should act as Arbitrator and if for any reason that is not possible, the matter is not to be referred to arbitration at all.

It is also the term of the Contract that the party invoking the arbitration clause shall specify the dispute(s) or difference(s) to be referred to under this Contract together with the

amount(s) claimed in respect of each such dispute(s) or difference(s). In an arbitration invoked at the instance of either party to the Contract, the Arbitrator would be free to consider the counterclaims of the other party or even though they are not mentioned in the reference to arbitration.

Subject as aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 (No.26 of 1996) or any statutory modification or reenactment thereof and rules made there under and for the time being in force shall apply to the arbitration proceeding under this Clause.

33. **Laws Governing the Contract**

This Contract shall be governed by the Indian Laws for the time being in force.

Relations working in CPP-IPR:

The Contractor shall not be permitted to tender for works in the CPP-IPR (Responsible for award and execution of work) in which his near relative is posted as an officer in any capacity. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives of any officer in the CPP-IPR. Any breach of this condition by the Contractor would render him liable to be removed from the approved list of contractors of the CPP-IPR.

Note: By term "Near Relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles and aunts, cousins and their corresponding in-laws.

34. **CONTRACTORS` LABOUR REGULATIONS AND FORMS**

1. **Definitions:**

In these regulations, unless otherwise expressed or indicated, the following words and expression shall have the meaning hereby assigned to them:

- a) "Labour means workers employed by Contractor directly, or indirectly through a sub-contractor or by an agent on his behalf on a payment as per applicable norms.
- b) "Fair Wage" means wages, which shall include wages for weekly day of rest and other allowances, whether for time or piece work, after taking into consideration prevailing market rates for similar employments in the neighborhood but shall not be less than the minimum rates of wages fixed under The Minimum Wages Act.
- c) "Contractor" for the purpose of these regulations shall include an agent or sub-contractor employing labour on the work taken on contract.
- d) "Inspecting Officer" means any Labour Enforcement Officer, or Assistant Labour Commissioner of the Chief Labour Commissioner's Organization.
- e) "Form" means a form appended to these Regulations.

2. Notice of commencement:

The Contractor shall, within SEVEN days of commencement of the work, furnish in writing to the Inspecting Officer of the area concerned the following information:

- a) Name and situation of the work
- b) Contractors` name and address
- c) Particulars of the Department for which the work is undertaken.
- d) Name and address of sub-contractors as and when they are appointed.
- e) Commencement and probable duration of the work.
- f) Number of workers employed and likely to be employed.
- g) "Fair wages" for different categories of workers.

(i) Number of hours of work which shall constitute a normal working day:

The number of hours which shall constitute a normal working day for an adult shall be EIGHT hours. The working day of an adult worker shall be so arranged that inclusive of intervals, if any, for rest, it shall not spread over more than twelve hours on any day; when an adult worker is made to work for more than EIGHT hours on any day or for more than FORTY EIGHT hours in any week, he shall, in respect of overtime work, be paid wages at double at ordinary rate of wages.

(ii) Weekly day or rest:

Every worker shall be given a weekly day of rest which shall be fixed and notified at least TEN days in advance. A worker shall not be required or allowed to work on the weekly rest day unless he has or will have a substituted rest day, on one of the five day immediately before or after the rest day. Provided that no substitution shall be made which will result in the worker working for more than ten days consecutively without a rest day for a whole day.

Where in accordance with the foregoing provisions a worker works on the rest day and has been given a substituted rest day he shall be paid wages for the work done on the weekly rest day at the overtime rate of wages.

NOTE: The expression "ordinary rate of wages" means the fair wage the worker is entitled to.

3. Display of notice regarding Wages, Weekly Day of Rest etc.,:

The Contractor shall, before he commences his work on Contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the works, notice in English and in the local Indian Language spoken by majority of workers, giving the rate of fair wages, the hours of work for which such wages are payable, the weekly rest days workers are entitled to and name and address of the Inspecting Officer. The Contractor shall send a copy each of such notices to the Inspecting Officers.

4. Fixation of Wage Periods :

The Contractor shall fix wage periods in respect of which wages shall be payable. No wage period shall normally exceed one week.

5. **Payment of Wage:**

- (i) Wages due to every worker shall be paid to him direct. All wages shall be paid in current coins or currency or in both.
- (ii) Wages of every worker employed on the Contract shall be paid where the wage period is one week, within THREE days from the end of the Wage period; and in any other case before the expiry of the 7th day from the end of the wage period
- (iii) When employment of any worker is terminated by or on behalf of the Contractor, the wages earned by him shall be paid before expiry of the day succeeding the one on which his employment is terminated.
- (iv) Payment of wages shall be made at the work site on a working day except when the work is completed before expiry of the wage period, in which case final payment shall be made at the work site within 48 hours of the last working day and during normal time.

NOTE : The term "working day" means a day on which the work on which labour is employed, is in progress.

6. **Register of Workmen :**

A register of workmen shall be maintained in the Form appended to these regulations and kept at the work site or as near to it as possible, and relevant particulars of every workman shall be entered therein within THREE days of his employment.

7. **Employment Card:**

The Contractor shall issue an employment card in the Form appended to these regulations to each worker on the day of work or entry into his employment. If a worker already has any such card with him issued by the previous employer, the contractor shall merely endorse that Employment Card with relevant entries. On termination of employment the Employment Card shall again be endorsed by the Contractor and returned to the worker.

8. **Register of Wages etc. :**

- (i) A Register of Wages-Cum-Muster Roll in the Form appended to these regulations shall be maintained and kept at the work site or as near to it as possible
- (ii) A wage slip in the Form appended to these regulations shall be issued to every worker employed by the Contractor at least a day prior to disbursement of wages.

9. **Fines and deductions which may be made from Wages:**

- (i) Wages of a worker shall be paid to him without any deduction of any kind except the following:
 - a) fines;
 - b) Deductions for absence from duty; i.e. from the place of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent;

- c) deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money which he is required to account for, where such damage or loss is directly attributable to his neglect or default;
 - d) deductions for recovery of advances or for adjustment or overpayment of wages, Advance granted shall be entered in a register; and
 - e) any other deduction which the Centre may from time to time allows.
- (ii) No fines shall be imposed on any worker say in respect of such acts and omissions on his part as has been approved by the Chief Labour Commissioner.
 - (iii) No fine shall be imposed on a worker and no deductions for damage or loss shall be made from his wages until the worker has been given an opportunity of showing causes against such fines or deductions.
 - (iv) The total amount of fines which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the wages payable to him in respect of that wage period.
 - (v) No fine imposed on a worker shall be recovered from him in installments, or after expiry of sixty days from the date on which it was imposed. Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.
 - (vi) The contractor shall maintain both in English & the local Indian language a list, approved by the Chief Labour Commissioner, clearly stating the acts and omissions for which penalty or fine may be imposed on a workman and display it in a good condition in a conspicuous place on the work site.
 - (vii) The Contractor shall maintain a register of fines and the register of deductions for damage or loss in the Forms appended to these regulations which should be kept at the place of work.

10. Register of Accidents:

The Contractor shall maintain a register of accidents in such form as may be convenient at the work place.

11. Preservation of Registers:

The Register of workmen and the Register of Wages-cum- Muster Roll required to be maintained under these Regulations shall be preserved for 3 years after the date on which the last entry is made therein.

12. Enforcement:

The Inspecting Officer shall either on his own motion or on a complaint received by him carry out investigations, and send a report to the Engineer-In-Charge specifying the amounts

representing Workers' dues and amount of penalty to be imposed on the Contractor for breach of these Regulations, that have to be recovered from the Contractor, indicating full details of the recoveries proposed and the reasons therefore. It shall be obligatory on the part of the Engineer-In-Charge on receipt of such a report to deduct such amounts from payment due to the Contractor.

13. Disposal of amounts recovered from the Contractor:

The Engineer-In-Charge shall arrange payment to workers concerned within FORTY-FIVE days from receipt of a report from the Inspecting Officer except in cases where the Contractor had made an appeal under Regulation 16 of these Regulations. In cases where there is an appeal, payment of workers dues would be arranged by the Engineer-In-Charge, wherever such payments arise, within THIRTY days from the date of receipt of the decision of the Regional Labour Commissioner (RLC).

14. Welfare Fund :

All moneys that are recovered by the Engineer-In-Charge by way of workers dues, which could not be disbursed to workers within the time limit prescribed above, due to reasons such as whereabouts of workers not being known, death of workers, etc. and also amounts recovered as penalty, shall be credited to a Fund to be kept under the custody of CPP-IPR for such benefit and welfare of workmen employed by Contractors.

15. Appeal against decision of Inspecting Officer:

Any person aggrieved by a decision of the Inspecting Officer may appeal against such decision to the Regional Labour Commissioner concerned within THIRTY days from the date of the decision, forwarding simultaneously a copy of his appeal to the Engineer-in-Charge. The decision of the Regional Labour Commissioner shall be final and binding upon the Contractor and the workmen.

16. Representation of parties:

- (i) A workman shall be entitled to be represented in any investigation or enquiry under these Regulations by an officer of a registered trade union of which he is a member or by an officer of a Federation of Trade Unions to which the said trade union is affiliated or where the workman is not a member of any registered trade union, by an official of a registered trade union, connected with, or by any other workman employed in, the industry in which the worker is employed.
- (ii) A contractor shall be entitled to be represented in any investigation enquiry under these Regulations by an officer of an association of Contractors of which he is a member or by an officer of a Federation associations of contractors to which the said association is affiliated where the contractor is not a member of any association of contractors, by an officer of association of employers, connected with, or by any other employer engaged in, the industry in which the contractor is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in investigation or enquiry under these Regulations.

17. Inspection of Books and other Documents:

The Contractor shall allow inspection of the Registers and other documents prescribed under these Regulations by Inspecting Officers and the Engineer-in-charge or his authorized representative at any time and by the worker or his agent on receipt of due notice at convenient time.

18. Interpretation etc.:

On any question as to the application interpretation or effect of these Regulations, the decision of the Chief Labour Commissioner or Deputy Chief Labour Commissioner (Central) shall be final and binding.

19. Amendments

Central Government may from time to time, add to or amend these Regulations and issue such directions as it may consider necessary for the proper implementation of these Regulations or for the purpose of removing any difficulty which may arise in the administration thereof.

SECTION-III

GENERAL INFORMATION & SPECIAL INSTRUCTIONS TO TENDERERS

1. GENERAL:

These special conditions supplement the General Conditions of contract and shall be considered as part of the contract document. Where these special instructions are at variance with the corresponding conditions, stipulations, and specifications elsewhere in the tender document, these special instructions shall prevail.

2. LOCATION:

The site of work is at Centre of Plasma Physics-Institute for Plasma Research, Nazirakhat, Sonapur-782402. CPP-IPR, which is located at about 18 km from Dispur. The contractor should visit the area to assess the scope of work before uploading his tender.

3. CLARIFICATIONS:

The tenderers should note that if any clarification regarding specifications conditions of the contract, schedule of quantity, scope of the work etc is required he should contact the Stores Officer-1, CPP-IPR for the same. No claim on account of any ambiguity in any respect will be entertained at any stage later on.

4. MEDICAL FACILITIES:

The contractor shall arrange adequate facilities for first aid and other medical treatment for his staff and workers engaged on this work. Subject to availability, the contractor may be permitted to use the CPP-IPR Engineers' First Aid Facility.

5. SECURITY AND SAFETY RULES:

The contractor shall follow at site all security rules as may be framed by CPP-IPR from time to time regarding movement of materials and equipments to site, issue of identity card, control of entry of personnel and all materials. The contractor and his personnel shall abide by all security and safety measures imposed by the Engineer-In-Charge or his duly authorized representative from time to time. Nothing extra will be payable on account of stoppage / hindrance of the work on this account.

6. DEPLOYMENT OF MANPOWER:

OPERATION AND MAINTENANCE:

The contractor shall deploy persons as detailed below for Operation & Maintenance:

Station In-Charge: The Station In-charge must be an engineer having Degree/Diploma in Electrical Engineering with minimum 5 years and of experience of operation and maintenance of similar kind of sub stations. He will be responsible for the operation and maintenance of switch yard, maintaining the shift duties of his sub-ordinates and other work stated in this tender shall be under his charge and normally He shall be posted in General / Day shift **(9AM -5:30PM, 6 days per week)** or as and when required. He shall arrange and organize shut downs if warranted, plan and organize schedules for maintenance, coordinate between the Institute Engineer In-charge and other agencies involved.

Working knowledge in Hindi, English language is essential and should be Computer literate with knowledge of MS Word, Excel & MS Project.

Shift In-Charge: The Shift In-charge must be an engineer with Diploma of Electrical Engineering and with minimum 3 years of experience of shift duties in similar type of sub stations. He shall be posted in shift of 8 hours. Three Shift In-charges would be deployed in a day and one as a Reliever. He shall be responsible for operation of substation. He shall report to the Station In-charge of the Contractor. Working knowledge of Hindi and English is essential and must be a Computer literate with knowledge of MS Word, Excel & MS Project.

The Station In-charge of the contractor shall be required to coordinate with the Engineer In-charge on a regular basis.

Operators: The Operators shall be Diploma in Electrical Engineering or ITI with proper grade of electrical license at least 2 years' experience of shift duties in similar type of sub-stations. They would be responsible for maintaining log books, operation and maintenance during his shift. Three Operators would be deployed in a day and one would stay as reliever. They will report to the respective Shift In-charge deployed by the Contractor.

Maintenance Technician: Maintenance Technician must be a ITI in Electrical Engineering with minimum 3 years of experience in Maintenance of similar kind of sub-station and LV electrical installation. He shall be posted in General / Day shift **(9AM -5:30PM, 6 days per week)** or as and when required. He will be responsible for routine and breakdown maintenance of substation as well as the entire electrical system of the institute along with operation of the DG sets. He will report to the respective Shift In-charge deployed by the Contractor.

Two technicians would be deployed in a day. They will report to the respective Shift In-charge deployed by the Contractor.

Additional Person: The additional persons comprising of skilled and unskilled shall be deployed for yearly, half yearly maintenance during break downs and shut downs as per requirement and quantum of work. Apart from above the Testing engineers along with skilled persons shall visit sub-station for annual relay testing and in event of emergency whenever their services required for smooth functioning of sub-station.

Operation staff shall be exclusive and not utilized for regular, periodic and breakdown maintenance works

CPP-IPR shall provide space for the operation staff persons free of cost.

7. DEFINITION OF TEAM & TEAM DAY:

A team means a group of two experienced persons of different levels. The following constitutes a team:

A) One Shift-in-charge and One Operator and

B) Two (02) Maintenance Technicians

Station-In-Charge & Maintenance Technician: 9:00AM to 5:30 for all six days of the week or as and when required.

Shift-in-charge & Operator: 6:00AM to 2:00PM (Morning)

2:00PM to 10:00PM (Evening)

10:00PM to 6:00AM (Night)

The maintenance technicians shall remain present during yearly, half yearly maintenance, break downs and shut downs as per requirement and quantum of work.

The output of the team per shift is called a team day.

8. THE PERSONS TO BE DEPLOYED :

The persons to be deployed by the contractor shall be fit in all respect to carry out the work including that in higher elevation jobs, night duty etc. The Manpower to be deployed by the Contractor for operation and maintenance duties-

- The Station-In-Charge (1 No.)
- Shift-in-charge (4 Nos.)
- Operators (4 Nos.) and
- The Maintenance technician (2 No.)

Total: 11 Nos.

9. CPP-IPR ENDORSEMENT OF PERSONS TO BE DEPLOYED BY THE CONTRACTOR :

The persons to be deployed must strictly meet the requirement of the work contracted to the contractor and the contractor must ensure that these persons remain for 12 months. The suitability of the persons to carry out the work contracted shall be endorsed by the Engineer-in-charge and in case, in the opinion of the Engineer in Charge, the deployed persons are found to be not suitable for the work, the contractor shall ensure immediate replacement of them. The additional persons deployed will also have the endorsement of the Engineer in Charge.

10. ABSENCE:

The Station In-charge shall be responsible to ensure that there is no absence of persons in any shift for any work assigned as per the contract.

11. ATTENDANCE:

Regular attendance of the personnel deployed shall be maintained by the Station-In-Charge and will be daily authenticated by the Engineer-in-charge or his representative to confirm the deployment. As attendance sheet will form an important document for settlement of bills, utmost care in maintaining this record involving monitoring, quality and custody shall be the sole responsibility of the Station-in-Charge.

12. SALARY AND WAGES TO THE PERSONS DEPLOYED BY THE CONTRACTOR :

Salary and wages for the persons deployed by the contractor shall be paid as per the terms conditions of this contract and the same shall be witnessed by an authorized officer of this Centre.

13. PENALTY:

Failure to deploy the persons:

- a) Station-in-Charge: Rs.1000/- per day shall be recovered from the routine bill of the contractor.**
- b) Shift-in-Charge: Rs.500/- per day shall be recovered from the routine bill of the contractor.**
- c) Operator/Technician/Helper: Rs.300/- per visit shall be recovered from the routine bill of the contractor.**

The above penalty shall be in addition to the consequential loss, if any, the Centre may incur for substituting the requirement for running the system in view of the failure of contractor to deploy the persons as per the contract.

Failure to complete the repair and replacement work by the contractor as per the contract:

a) A maximum period of 7 days is allowed to the contractor to carry out the minor repairs and replacement. If the Contractor fails to complete the minor repairs and replacement within 7 days, CPP-IPR will charge penalty @ Rs. 300/- per day from the 8th day till completing minor repairs/replacement.

b) If the major repairs/replacement cannot be completed within 7 days due to unforeseen reasons/causes, extension of time limit may be granted by the Engineer-In-Charge in writing after reviewing the nature of problem. The decision of Engineer-In-Charge in this regard shall be final and binding.

c) The Engineer-in-charge shall be final authority to determine between major and minor repairs / replacements.

BRIEF SCOPE OF WORK:

Scope of work shall be as per details mentioned in Section IV and has to be read in conjunction with other sections of this document.

The Operation of 33kV Switchyard, 33/.433kV Sub-Station, HT< Switch Gear, 415V Distribution Systems and DG Sets involves deployment of right persons as mentioned above for operation and these persons would be responsible for the work contracted for this purpose. The main jobs will include:

1. Routine Surveillance of 33kV Switchyard indoor equipment like Control Relay Panels, Station Metering Panel, Switch Yard Control Panel, AC Distribution Boards.

2. Routine Surveillance of 33kV Switch Yard Outdoor equipments such as Power Transformer (ratings mentioned later), 33kV Vacuum Circuit Breakers(VCB) and their respective Field Control Panels, Isolators and their respective Field Control Panels, CTs, PTs, LAs etc.,DG sets and all Indoor LT Distribution System.
3. Filling up of Approved Data Sheets for the different Indoor & Outdoor equipments of 33kV Switch Yard, raising deficiency reports and communicating to Main Control Room, Engineer-in-charge and maintenance staff.
4. Recording all tripping of breakers and other events that occur in the order of sequence with the time of occurrence correctly and record them in Log Book.
5. Carrying out operations correctly and accurately and recording the same in the relevant Log Books
6. Strictly following operating instructions given by the Engineer-In-Charge.
7. Observing all safety precautions and ensure safety to men and material and the equipment during the contract period.
8. Attending to all emergencies which may arise during the contract period such as equipment failures, fire accidents, etc., shall get acquainted with the operations all equipments covered under the contract.
9. Attending to all Telephone calls and issue receipt message promptly.
10. Preparing daily reports and periodic returns in the prescribed format in duplicate and submit to the concerned Engineer-In-Charge. The Centre will supply the Forms and directions if needed.
11. Assuming responsibility for the equipment and other materials kept at the Sub-station area.
12. Assuming responsibility for any damages that occur due to mal-operation of equipment and shall make good the loss suffered by CPP-IPR.
13. To be alert and attending to all operations and events promptly without any delay.
14. Updating of interruptions Register, Call register, Data Book. Apart from the above, the contractor shall carry out the checks mentioned in Section IV in the document during the contract period daily.
15. Ensuring routine, preventive and breakdown maintenance works as mentioned in Section VI for the Maintenance of 33kV Switchyard, 33/.433kV Sub-Station, HT< Switch Gear & 415 V Distribution Systems. The testing reports in standard format must be submitted in hard and soft copies.
16. Operation of DG Sets, maintain Log Books. The Station-In-charge himself has to monitor the maintenance of the DG sets and report back to the Engineer-In-Charge immediately regarding necessary maintenance issues.

14. WORKING HOURS:

The normal working hours for operation staff shall be a block of continuous 08 (Eight) hours (including one hour for lunch and tea break). However, working hours may be changed depending on the work requirement; contractor's scope accordingly will vary. There will be 3 shifts per day for round the clock operation of the Sub-station.

Normally stay over beyond normal working hours will be avoided. However, reliever at all locations is to be ensured by the contractor.

The maintenance staff shall have to visit CPP-IPR at required intervals and complete the stipulated work in the given time schedules.

15. CO-ORDINATION OF WORK:

The tenderers shall note that they shall have to carry out their work in close co-ordination with other contractors' agencies working in the same premises.

16. VALIDITY OF OFFER:

The Tenderer shall note that the tender rates quoted by him shall be valid for a period of 180 days from the date of opening of tender.

17. RATES:

Rates must be mentioned in the Rate Schedule given in PRICE BID. Rates quoted shall include labour, accommodation, boarding and lodging material, tools, appliance, transport, equipment, GST, duties, levies, contractor's supervision overhead and profit and all that are necessary for satisfactory completion of the job, other than services and materials supplied free by CPP-IPR.

The quantities furnished are approximate and may vary. The rates quoted by the contractors shall remain firm within the deviation limit stipulated in the form of tender.

Note: EPF & GST clause are mentioned at clause nos. **30 & 31** respectively.

18. TRANSPORT:

Contractor has to arrange passenger vehicle for transportation of manpower. Non-compliance of this will result in strict action. Details of passenger vehicle shall be intimated to designated Engineer/ Division Head -Power Systems Section after award of work. For unauthorized travelers in departmental bus penalty of Rs. 1000/- per person will be imposed.

19. PAYMENT:

a) The payment for the completed work shall be made through running account bills payable monthly. The contractor shall submit his monthly bills along with satisfactory work done certification by the Engineer In-charge. The monthly bills should be submitted immediately after completion of each the month. CPP-IPR will make payment to contractor within 30 days from the date of submission of bill and certificate.

b) Payment for the last bill as well as release of Security Deposit will be subject to fulfillment of all the terms and conditions of the contract to the entire satisfaction of CPP-IPR. CPP-IPR reserves the right to hold the last payment and Security Deposit till the successful tenderer completes the pending job if any, to the entire satisfaction of CPP-IPR, including satisfactory handing over of the switch yard and the equipments to the incoming contractor. However, the successful tenderer's payment will be withheld if the successful tenderer fails to hand-over the plants as they were at the time of taking over, considering normal wear and tear of plants during the course of operational period.

c) All the spares/consumables procured and used by the successful tenderer shall be original/genuine and new. CPP-IPR reserves the right to ask the successful contractor to use only original/genuine and new spares/consumables. However, before going to use, the successful contractor should furnish necessary delivery Challans to the CPP-IPR. The decision of designated Engineer/ Division Head - Power Systems Section in the respect of spares/consumables will be binding on the successful contractor

d) If the work carried out by the successful tenderer is not satisfactory, CPP-IPR shall hold such bills till satisfactory services are provided.

e) Any amount due from the successful tenderer to CPP-IPR will be recovered from his monthly bill.

20. ESCALATION:

No escalation is applicable throughout the contract period.

21. TERMINATION OF CONTRACT:

In the event of repeated lack of performance, negligence, unfair practices by the contractor to the scope of work in the opinion of the Institute, then the contract could be terminated at any stage without any reference to the right of action under any other clause of the contract.

The competent Authority reserves the right to consider the tender as a whole or in part at his discretion for which the contractor shall have no additional claim what so ever.

22. OBSERVANCE OF SAFETY PRECAUTIONS:

The contractor shall abide with all the safety regulations as in included in the Electrical safety guide for works contract at site. The contractor shall comply with all applicable provisions of the safety regulations, clean-up program and other precautionary measures, which the Engineer-In-charge has in effect at the site. The contractor shall comply with all instructions given by the safety engineer or his authorized representatives regarding safety precautions, protective measures, clean up and all the other practice which in the opinion of the Engineer or his authorized representative might be hazardous.

For the work at elevated places, the persons identified to work shall be subjected to medical check - up once in 12 months with respect to :-

- a) Vertigo
- b) Epilepsy/fits
- c) Other related medical problem

The fitness certificate in this regard shall be submitted in the prescribed format & duly counter signed by CPP-IPR AMO.

If the contractor has been found violating the safety rules more than twice as per the intimation received from concerned Engineer, he will be penalized by Rs.500/- each time and this amount shall be deducted from his R.A. Bills.

Safety and fire training for labour engaged on work shall be organized by the contractor under the guidance of CPP-IPR Safety Section. Cost for such training occurred, if any, shall be borne by the contractor.

Safety helmets, safety shoes, gloves and any other safety equipment are to be provided by the contractor to his workers.

23. SECURITY:

The contractor shall follow all security rules as may be framed by CPP-IPR from time to time regarding removal of material from site, issue of identity cards, control of entry of persons and other similar matters. The contractor's personnel shall abide by all security measure imposed by the Engineer-In-Charge or his duly authorized representative from time to time.

The Contractors' personnel shall not disclose any information or drawings furnished to him by CPP-IPR. Any drawings, records and other information's prepared by the contractor or by CPP-IPR or jointly by both for the execution of the works shall not be disclosed without the prior approval of the engineer. No photograph of the sub-station or any other place within the premises of CPP-IPR shall be taken without the prior approval of the Engineer-In-Charge.

24. PAYMENT TO WORKMEN:

The Contractor shall strictly comply with all provision of labour laws given in General Conditions of the contract.

The contractor shall strictly follow all provisions of Minimum Wages Act (s) (central or state *which ever is more advantageous to workers*), contract labour (regulation & abolition) act or any other act(s) applicable to workers in this area. The contractor shall have to strictly pay minimum wages to his personnel as notified by the Asst. Labour Commissioner (Central) as applicable from time to time. The payment of wages to the persons deployed by the Contractor may be witnessed by an accredited representative of the Centre.

The contractor must obtain valid license under the Contract Labour (R & A) Act 1970 and Contract Labour (Regulation and abolition central rules 1971) before the commencement of work and continue to have valid license during the currency of the contract.

If minimum wages increases during the contract period the difference (new minimum rate - old minimum rate) shall also be payable by contractor.

The contractor shall record a certificate on every bill that minimum wages as applicable have been paid to all workmen. All Government / Centres' notification procedure issued in this regard shall be applicable to this contract.

The contractor shall comply with the provision of payment of wages Act 1936, minimum wages Act 1948, employees liability Act 1938, Workmen's compensation Act 1923, Industrial disputes Act 1947, maternity benefit Act 1961 and the contractor labour (Regulation & Abolition) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.

25. LIABILITY FOR LOSS, DAMAGE, ACCIDENT ETC.

The contractor shall immediately on award of work take out at his own cost a "Workmans' Insurance Policy" to a value equivalent to work order value. All policies taken by the contractor are to be in the join names of the Centre and the contractor & the contractor is required to deposit the policies in original with the Authorized Authority. The contractor must have a third party insurance and insurance for workman compensation. The policy should include holidays also.

The first bill will be processed only after receipt of confirmation and documentary evidence of the policy enforced. The second bill will be processed only after due verification of the original insurance policy otherwise the second bill will be returned for compliance of the insurance clause.

In case there is a failure of keeping the insurance policy in force the contract will be terminated without giving any notice to the contractor. In this case the contractor shall be liable for the consequential losses that CPP-IPR will be subjected to.

If the policy was not in force for the intervening period the contractor shall be required to renew it without any delay and he shall be liable for consequential losses for not renewing it in time.

26. HOUSE KEEPING:

The contractor shall keep his work spot, site office and surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipments. All scaffolding and temporary structure including the tools and equipments shall be removed as soon as the job for which they are intended are completed. All equipment and material to be taken inside the plant building shall be cleaned thoroughly before taking them inside. The Engineer-in-charge has right to stop the work, if the contractor fails to improve upon the house keeping after having been notified.

Necessary de-weeding of the substation has to be done as and when required.

All the control rooms/operator room/relay room shall be maintained clean and free from dust, rubbish, scrap, surplus materials and unwanted tools and equipment.

All the unwanted/scrap materials are to be shifted at the assigned/specified area/scrap yard after consulting with Engineer In-charge.

A penalty of Rs.100.00 per occasion shall be imposed if any contractor or contractor's person is found chewing Gutka/ Smoking Cigarette during the period of contract in substation premises. Consumption of alcohol or influenced by alcohol is highly prohibited.

27. SUB-CONTRACTS:

The contractor shall not sublet the whole or any part of the work without the written consent of the Centre.

The following undertaking shall be submitted by the contractor along with the request for the approval of sub-contract:

“I undertake that sub-contractor (Name of sub-contractor) who is being engaged by me to carry out work at this site will not violate any labour laws applicable to contract workers appointed by him. In case, if he fails to comply with requirement, I undertake that the same would be complied by me. In case of any prosecution filed by anyone including labour department, I undertake to accept the responsibilities before such court for violation done by my sub-contractor.”

The contractor shall bind every approved sub-contractor by their agreement to the terms and conditions of the contract. The subcontractor shall also oblige with all responsibilities as the contractor.

28. NOTICES:

Any notice, order direction or other communication to be given to the contractor under any of the provisions of the work order shall be intimated to the contractor be conclusively deemed to have been received by the contractor at the address mentioned in the work order or to the contractor's last known place of business or residence or to his Resident Engineer or Engineer in charge.

29. OTHER TERMS:

The contractor must furnish particulars of inter-state migrant persons deployed or to be deployed in future, at CPP-IPR during the contract period.

The contractor can make the reasonable use of existing road at the site. The Engineer-In-charge will regulate the entry of the vehicles in the site.

Contractor shall make his own arrangement for providing all facilities like accommodation, boarding, lodging, transport to site etc. for the persons deployed by the contractor for the purpose of this contract. The contractor persons must be given transport to CPP-IPR and back at the prevailing rates. He shall submit details of vehicle being used for the transportation. For unauthorized travelers in the Centre's bus, penalty of Rs.800/-per person will be imposed. Transportation charges shall be in scope of contractor and should not be deducted from the wages / salary of the persons deployed at CPP-IPR for the purpose of the contract.

The contractor shall submit the details of his previous similar works carried out as the proof of ability to carry out the specified work as specified in the Technical Evaluation form.

Contractor has to follow strictly the labour laws /acts, which are in force from time to time. Any payment required to his workmen shall be born by the Contractor. He shall make necessary payment to insurance, provident fund and third party insurance etc. as per law.

The contractor is required to enclose with the tender an income tax clearance certificate made out exactly or signed by the income tax department counter signed by the income tax officer of their area. In case of partnership firms, the contractors shall submit individual income tax clearance certificate relating to all the partners in addition to the certificate relating to the firm. Contractors may note that their tender will not be considered unless the Income Tax Clearance Certificate accompanies it.

The contractor shall comply with all statutory requirements such as insurance coverage, workmen's compensation so as to absolve CPP-IPR of any and all liabilities in case of accidents. Contractor shall produce to CPP-IPR within 15 days from the date of work order, the insurance policy covering the workmen as per relevant act.

All disputed matters of the award of Contract shall be decided by CPP-IPR, and shall be final and binding on the Contractor.

The respective rights, privileges, duties and obligations of CPP-IPR and the Contractor under this award of contract shall be governed/determined by the laws of the State of Gujarat.

Engineer-in-charge will have the right to withdraw the works permit for any of the contract workmen for reasons of misconduct, incompetence in work, violation of safety and fire rules, negligence on duty etc.

Cost of damages caused due to bad workmanship shall be recovered from the contractor.

Before employment of labour for the work, the contractor shall obtain Labour License from Assistant Labour Commissioner for employment of Labour.

Payment shall be made to all workers upto **7th of every month** in the presence of authorized representative of CPP-IPR. Non-compliance of this will result in strict action; explanation call and penalty of Rs. 200/- per day will be deducted from bills.

The knowledge/Information of availability of manpower on daily basis shall be responsibility of contractor himself the information regarding manpower absent shall not be communicated by Engineer-In-charge. Contactor should ensure availability his representative throughout the contract period who shall be responsible for manpower availability and their record keeping.

30. IMPLEMENTATION OF EPF & MP ACTS, 1952:

The contractor must have a provident fund code allotted to it by EPF, Assam. This has to be submitted by the contractor before the award of work otherwise CPP-IPR may reject their offer without assigning any reason. The contractor shall submit along with the monthly bills, a monthly statement showing the PF remittance and the copies of relevant challan duly certified by the Engineer In Charge. For payment of the final bill, the contractor shall furnish following documents.

- a) Letter from PF officer concerned (where the registration is done by the contractor) stating that the contractor is operating the PF code without any default.
- b) An affidavit stating that all the liabilities on account of PF for the Employees / labours deployed by the contractor for the work, has already been liquidated and indemnifying CPP-IPR of any future liabilities on this account and CPP-IPR will have no responsibility on this account

In the event, the contractor not complying with the condition, the following action shall be taken:

- a) Work order shall be issued only after submitting PF registration code by the contractor, otherwise next to L1 party may be evaluated.
- b) If contractor does not submit PF remittance proof with monthly bill, then the requisite amount of the minimum wages component of labour supply portion will be reduced from the payment due to the contractor. On submission of the proof, this will be refunded. If not submitted till final bills, the contract price will be reduced since the price includes these elements. In addition the contractor shall be liable for any action as deemed fit.

If contractor does not submit the Affidavit as specified in para. 32 (b) above, then final bill will not be processed.

31. GST

The contractor should quote the price “inclusive of service tax” or “exclusive of service tax”. In case the contractor quote the price exclusive of service tax, in the quoted price following information may also be furnished by the contractor:

GST rate applicable under this contract with HSN/SAC code.

GST rate will be applicable as per updated government rules and norms.

In case, the contractor quote the price without specifying the GST, the tender will be treated as “the price is inclusive of GST”.

32. FACILITIES

A: Under CPP-IPR’s scope:-

- i. Access to canteen at non-subsidized rates during working hours of shift only.
- ii. Space for Engineers & safe storage will be provided.
- iii. Spares for replacement as and when required.

B: Under Contractor’s scope:

- i) Boarding & lodging to his personnel.
- ii) Medical facility & Insurance coverage.
- iii) All test & measuring instruments & tools with valid calibration certificate as required.
- iv) Uniform to staff as per specs given by CPP-IPR before placement of order.
- v) Personal Safety aids like helmets, shoes and safety belts, aprons and gloves, etc.
- vi) Transport facility for contractor staff
- vii) PC and printer for data entry and taking print out of technical reports.

Contractor shall be responsible for maintaining and storing the data pertaining to the work.

SECTION-IV

TECHNICAL AND GENERAL SPECIFICATIONS

1) **CURRENT SCOPE & ENHANCED SCOPE:**

a) **CURRENT SCOPE:**

The current scope indicates the scope of equipment as detailed in **Annexure-I** in this section. This scope will begin from the effective date of the contract.

2) **DEPLOYMENT OF PERSONS :**

OPERATION AND MAINTENANCE :

The contractor shall deploy persons as detailed below for Operation & Maintenance:

Station In-Charge: The Station In-charge must be an engineer having Degree/Diploma in Electrical Engineering with minimum 5 years of experience of operation and maintenance of similar kind of sub stations. He will be responsible for the operation and maintenance of switch yard, maintaining the shift duties of his sub-ordinates and other work stated in this tender shall be under his charge and normally He shall be posted in General / Day shift **(9AM -5:30PM, 6 days per week)** or as and when required. He shall arrange and organize shut downs if warranted, plan and organize schedules for maintenance, coordinate between the Institute Engineer In-charge and other agencies involved. Working knowledge in Hindi, English language is essential and should be Computer literate with knowledge of MS Word, Excel & MS Project.

Shift In-Charge: The Shift In-charge must be an engineer with Diploma of Electrical Engineering with minimum 3 years of experience of shift duties in similar type of sub stations. He shall be posted in shift of 8 hours. Three Shift In-charges would be deployed in a day and one as a Reliever. He shall be responsible for operation of substation. He shall report to the Station In-charge of the Contractor. Working knowledge of Hindi and English is essential and must be a Computer literate with knowledge of MS Word, Excel & MS Project.

The Station In-charge of the contractor shall be required to coordinate with the Engineer In-charge on a regular basis.

Operators: The Operators shall be Diploma in Electrical Engineering or ITI with proper grade of electrical license at least 2 years' experience of shift duties in similar type of sub-stations. They would be responsible for maintaining log books, operation and maintenance during his shift. Three Operators would be deployed in a day and one would stay as reliever. They will report to the respective Shift In-charge deployed by the Contractor.

Maintenance Technician: Maintenance Technician must be a ITI in Electrical Engineering with minimum 3 years of experience in Maintenance of similar kind of sub-station and LV electrical installation. He shall be posted in General / Day shift **(9AM -5:30PM, 6 days per week)** or as and when required. He will be responsible for routine and breakdown maintenance of substation as well as the entire electrical system of the institute along with operation of the DG sets. He will report to the respective Shift In-charge deployed by the Contractor.

Two technicians would be deployed in a day. They will report to the respective Shift In-charge deployed by the Contractor.

Additional Person: The additional persons comprising of skilled and unskilled shall be deployed for yearly, half yearly maintenance during break downs and shut downs as per requirement and quantum

of work. Apart from above the Testing engineers along with skilled persons shall visit sub-station for annual relay testing and in event of emergency whenever their services required for smooth functioning of sub-station.

Operation staff shall be exclusive and not utilized for regular, periodic and breakdown maintenance works

3) **TOOLS & TACKLES:**

All tools and tackles required for the safe and satisfactory operation and maintenance including preventive and break down maintenance of the sub-station and related equipment covered under this tender shall be provided by the contractor.

The tools and tackles, apart from other things, must comprise of

- a) Set of Discharge rods (Minimum six nos.)
- b) Complete set of all sizes of Double-ended, Ring, Tubular & box spanners – 2 sets.
- c) Complete set of all sizes of screw drivers -2 sets
- d) Complete Tool Box -2 nos.
- e) 1 No. Blower & Vacuum Cleaner.
- f) One derrick capable of handling highest equipment of the sub station
- g) Guy ropes suitable for hoisting above derrick.
- h) Minimum two sets of Electrical safety heavy duty hand gloves of highest voltage rating available in the market.
- i) 6 nos. Safety Helmets, 6 nos. safety belts & Safety shoes.
- j) 2 nos. of heavy duty dry cell or rechargeable (without acid) torches.
- k) Rain coats and gum boots as required.
- l) First aid box
- m) 1 No. Insulation tester 1 kV capacity
- n) 1 No. Earth tester
- o) 2 nos. Multi meter - Analog & Digital
- p) Clamp meter for measuring AC/DC current
- q) Temperature sensor adaptor for multi meter
- r) Cable crimping tools of adequate capacity etc.
- s) Metal-clad extension Power supply boards with MCB & surge protection
- t) Phase Sequence meter
- u) Other general purpose test instruments
- v) PC with printer

All the above tools and tackles shall be produced to the Engineer In-charge for verification every six month basis.

4) **CONSUMABLES:**

- a) Petroleum jelly as required
- b) Carbon Tetra Chloride (CTC) solution as required
- c) Contact Cleaner Spray (STANVAC chemical or equivalent)/CRC spray as required
- d) M-Seal epoxy compound, sealing compound, emery paper, paint, red oxide, etc. as required.
- e) Insulation tapes, HT tapes, etc. as required.
- f) Silica gel, gasket (neoprene cork & neoprene rubber), cotton tape, Teflon tape, etc. as required.
- g) Cotton waste, muslin cloth, waste cloth, cleaning agents, etc. as required.

Other major consumables like transformer oil, indicating lamps, control and power cables/wires, etc. shall be provided by the Centre.

5) **SPARES:**

- a) All spares recommended by manufacturers of equipment installed in the sub-station. (To be provided by CPP-IPR but a comprehensive list should be prepared by the contractor at the time of starting the contract.)
- b) Nuts, bolts, washers of sizes used in sub-station and other systems.
- c) Fuse holders and HRC fuses, terminal links, control wires and lugs of rating used in the substation and other systems.
- d) The contractor shall keep ready stock of all items/consumables for day to day maintenance/repairing works.

6) **OPERATIONS:**

a) **Hourly:**

- i) Taking readings of all meters installed at control panel. ACDB, DCDB, Battery Charger etc.
- ii) Oil & Winding temperatures of Transformers.
- iii) Taking the reading of surge arrestor counters of Lightning Arrestors,
- iv) Checking any sparking or flash over / hot spots in the sub-station.

b) **Daily :**

- i) Checking the operation of Circuit breaker.
- ii) Visual Checking contacts of Isolators are in proper position or not.
- iii) Checking oil levels of all bushings, Main & OLTC Conservator, CTs and PTs, etc.
- iv) Checking oil leakages if any for Transformers, CTs & PTs & taking appropriate action for its timely repair
- v) Checking condition of Silica gel.
- vi) Checking DC voltage.
- vii) Cleaning of premises, Control relay panels etc.
- viii) Maintaining log books and daily check list.
- ix) Checking Deposition of dust and dirt on Insulators.
- x) Checking Locks and doors of sub-station are in good condition.
- xi) Checking no leaks have developed in the roof. Ventilating systems.
- xii) Checking the heating systems are working normally.
- xiii) Checking the prescribed safety aids are in place and in good order.
- xiv) Checking the earthing connections is unbroken.
- xv) Checking the packing of cables entering and leaving the trenches or tunnels with in the premises are intact.
- xvi) Checking the ventilating louvers are not damaged.
- xvii) Checking the access roads to the oil filled devices is not obstructed.
- xviii) Draining the air / moisture from air conservators of circuit breakers.
- xix) Trouble shooting and repair of Electrical circuit components in case of any abnormal conditions.
- xx) Operation along with regular inspection of DG sets, DB's etc around the institute premises.

c) **Weekly:**

- i) Checking Yard and control room lighting.

- d) **Monthly:**
- i) Checking Auto/ Manual operations of OLTC.
 - ii) Checking earthing points and their contact, tighten wherever required.
 - iii) Preparation of monthly checklist and events log for the month.
- e) **Events:**
- i) Logging auto / manual operations of OLTC.
 - ii) Logging the breakdown events with relay indications etc.
 - iii) Logging shut down events, log of operations during shut down period.
 - iv) Logging of on /off of feeders in the .433kV and 415V distribution system.
 - v) Maintaining visitors registers along with their comments and details of their visits.

7) **MAINTENANCE:**

a) Maintenance scope include both preventive and breakdown maintenance. Preventive maintenance shall be routinely carried as per details provided herein below.

b) **Breakdown maintenance** shall be provided as and when situation warrants with a failure/fault in the system. The breakdown maintenance shall be attended at the highest priority so as to make the faulted system healthy and putting it into operation. In case of breakdown or equipment is found unserviceable. The scope of work of the contractor is as follows:

- Diagnose the fault / breakdown/failure in the respective system.
- Submit the detailed breakdown/failure analysis report to Engineer-In-charge, CPP-IPR.
- Ensures the requirement of OEM if any for the execution of breakdown activities in consultation with Engineer-In-charge, CPP-IPR.
- The contractor shall undertake coordination / liaison with original equipment manufacturer for replacement parts and services as necessary.
- All the tools and tackles, site support (man power) and infrastructure shall be provided by the contractor on priority basis without unnecessary delays.
- OEM parts and services, if any, required for the completion of breakdown services shall be approved and cleared for execution by the Engineer In-charge, CPP-IPR. The cost of services and spares if any from the OEM shall be borne by CPP-IPR.

b) During the preventive (routine) maintenance the contractor shall carry out the following as listed for various system components:

c) Though the list contains several individual jobs they could be executed in a combined scope as in servicing or overhauling of the component.

d) All the maintenance activities shall be carried out by following all the safety measures using required PPE equipment. The contractor will be solely responsible for any mishap due to unsafe act / practice.

LIST OF MAINTENANCE ACTIVITIES IN THE SCOPE INCLUDE THE FOLLOWING:

1. Power Transformers:

a) Hourly:

- i) Check oil & winding temperatures, check for abnormalities & recording them.
- ii) Observe and record Load (amperes) and Voltage. Check against rated figure.
- iii) Visual check for overheating if any at terminal connections (Red hots) and observation for any unusual internal noises. This check must be done in each shift.

b) Daily:

- i) Observation of oil levels in (a) main conservator tank (b) OLTC conservator (c) bushings and examining for oil leaks if any from the transformer.
- ii) Checking the Color of silica gel in the breather and also oil level of the oil seal. If silica gel colour changes from blue to pink by 50% the silica gel is to be reconditioned or replaced.
- iii) Visual check of explosion vent diaphragm for any cracks.

c) Monthly:

- i) Physical examination of diaphragm of vent pipe for any cracks.
- ii) Cleaning of bushings, inspect for any cracks or chippings of the porcelain and checking of tightness of clamps and jumpers.
- iii) Measurement of IR values of transformer with suitable megger according to the rating of the transformer. Recording of the values specifying the temperature which measurements are taken.
- iv) Cleaning of Silica gel breather.
- v) Checking of temperature alarms by shorting contacts by operating the knob.

d) Quarterly:

- i) Testing of Bucholz surge relays & low oil level trips for correct operation.
- ii) Checking of all connections on the transformer for tightness such as bushings, tank earth connection.
- iii) Lubricating / Greasing all moving parts of OLTC mechanism.

e) Half Yearly:

- i) Bushing testing for tan delta.
- ii) Testing of main tank oil for BDV and moisture content.
- iii) Testing OLTC oil for BDV & moisture content.

f) Yearly:

- i) Testing of oil for dissolved gas analysis, acidity, tan delta, interface tension specific resistivity.
- ii) Calibration & testing of oil & winding temperature indicators.
- iii) Measurement of magnetizing current at normal tap and extreme taps.
- iv) Measurement of DC winding resistance.
- v) Turns ratio test at all taps.
- vi) Overhaul of tap changer and mechanism.
- vii) Calibration of tap position indicator.
- viii) Filtration of oil or replacement of oil in main tank as well as OLTC

- ix*) Changing the gaskets at all locations as when leakage is found or the gasket is damaged or else yearly.
- x*) Replacing of Buchholz relay, OTI, WTI, breather etc. if found malfunctioning (material to be provided by CPP-IPR)
- xi*) Replacement of bushing when required.

2. **33kV VCB Circuit Breakers (Spring Charge Mechanism)**

- a) **Daily:**
Check the operation of spring charging motors. Check timing and sound.
- b) **Monthly:**
 - i*) Air cleaning with blower.
 - ii*) Cleaning of circuit breaker body and bushings.
 - iii*) Auxiliary contacts cleaning.
 - iv*) Tightening of nuts and bolts.
 - v*) Checking breaker Operation (Local/Remote operation).
 - vi*) Check of motor control
 - vii*) Use of anti-corrosion spray where required.
- c) **Quarterly:**
 - i*) Oiling and greasing of all moving parts.
 - ii*) Functional check of trip circuit.
- d) **Half-yearly:**
 - i*) Checking ON/OFF Timings of Circuit breaker poles.
 - ii*) Complete servicing, oiling and greasing of all moving parts. Replacement of any defective part
 - iii*) Operation and control of Auxiliary circuits.
 - iv*) Recharge time of operating mechanism after specified sequence.
 - v*) Checks on specific operations.
 - vi*) Control Circuit Insulation Checking.
 - vii*) Measurement of Humidity
- e) **Yearly:**
 - i*) Touch up painting wherever required. Porcelain insulator.
 - ii*) Checking contact resistance of Breaker main contact.
 - iii*) Checking of circuit breaker level with spirit level.
 - iv*) Mechanism checking and lubrication to all moving parts.
 - v*) IR values of Power and Control Circuits.
 - vi*) Operating circuits power consumption during operations.
 - vii*) Verification of correct rated operating sequence.
 - viii*) Checking and adjustment of Track alignment and Interlocking mechanism.
- f) **Repairs:**
 - i*) Repair of 33kV VCB only by or under the supervision of qualified personnel.

3. **Lightning Arrestors:**

- a) **Hourly:**
 - i*) Checking the readings of surge arrestor counters.

- b) **Monthly:**
 - i)* Cleaning of porcelains Insulators.
- c) **Quarterly:**
 - i)* Removing of bird nests, if any.
 - ii)* Monitor the total leakage current (capacitive and resistive current) and resistive current.
 - iii)* Records of the number of operations of the Arrester should be maintained and if more number of operations are seen then the same should be informed to the concerned authority.
- d) **Yearly:**
 - i)* Testing of counters
- e) **Repairs:**
 - i)* Replacement of Lightning Arrestor pole.(LA to be provided by CPP-IPR)

4. **Isolators**

- a) **Daily:**
 - i)* Visual Inspection
- b) **Monthly:**
 - i)* Clean the porcelain insulators and inspect for cracks and chip off.
 - ii)* Check for tightness of nuts and bolts. Drive tube locknuts. Drive lever and phase coupling plan, bolts etc.
- c) **Quarterly:**
 - i)* Open the disconnecter and earthing switch and inspect the contacts. (wipe the contact surface with solvent).
 - ii)* Check for contact surface soundness.
 - iii)* After maintenance and inspection, smear contact surface lightly with contact lubricant.
 - iv)* Check for split pins in clevis, if damaged, to replace the same.
 - v)* Lubricate all clevis pins.
 - vi)* Check contact gap 34-36 mm. if found inadequate replace contact spring.
- d) **Half Yearly:**
 - i)* Maintenance of Drive Mechanism:
 - ii)* Apply grease on the teeth of the spur gear and GEAR box/ Lead screw and guide nut and incase of lead screw type.
 - iii)* Oil auxiliary switch linkage and pivot on the guard aperture for manual operation.
 - iv)* Cleaning of auxiliary switch contact & greasing with silicon grease.
 - v)* Check that all the electrical components are firmly fixed and let the contactors operate freely.
 - vi)* Check all electrical connections for tightness.
 - vii)* Check all mounting bolts for tightness.
 - viii)* Apply grease to mechanical interlock-cam groove, if the disconnecter is with earth switch.
 - ix)* Check interlocks.
 - x)* Adjustment of limit switch if it is required.
 - xi)* Main Contacts

- xii*) Cleaning and lubrication of main controls
- xiii*) Check Alignment.
- xiv*) Main contact resistance measurement
- xv*) Tightness of nuts bolts and pins etc.
- xvi*) Cleaning of support insulators and checking of insulator cracks, if any.
- xvii*) Earth Switch
- xviii*) Checking and Alignment of earthing blades
- xix*) Cleaning of contacts
- xx*) Checking of Contact resistance.
- xxi*) Operation of earthing switch.
- xxii*) Checking of aluminum Copper flexible conductor.
- xxiii*) Checking of earth connections of structures and marshalling box.
- xxiv*) Marshalling Box
- xxv*) Visual check of auxiliary contacts.
- xxvi*) Cleaning and terminal tightness.
- xxvii*) Checking of space heaters and illumination.
- xxviii*) Checking of healthiness of gaskets else replace the gaskets.

e) **Lubricants recommended:**

- i*) For Contact Surface - Clean contact surface with plain cloth and apply contact Grease.
- ii*) For External drive linkage - Shell Alvania grease

5. **Current Transformers**

a) **Daily:**

- i*) Visual Check
- ii*) Check for Oil leakage

b) **Monthly:**

- i*) Clean the porcelain insulators and inspect for cracks and chip off.
- ii*) Secondary connection of the CT should be intact.

c) **Half yearly:**

- i*) Check the I.R. value of each Current Transformer and keep record.
- ii*) Check the Pressure Diaphragm. If pressure diaphragm is defective, replace it with new one as per the procedure explained in the instruction manual.
- iii*) If the insulation resistance of the current transformer is low it can be improved by oil filtration under vacuum.
- iv*) Attending to oil leakage in the CT. If it due to failure of gaskets, the gaskets need to be replaced. (Gaskets should be provided by the contractor)
- v*) Tan-delta and Capacitance measurement

6. **Potential Transformers**

a) **Daily:**

- i*) Check Oil level and check for any leakage
- ii*) Chattering sounds

b) **Monthly:**

- i*) Cleaning of Bushing
- ii*) Checking for Oil level & topping up of oil if, required

c) **Half yearly:**

- i)* Check the I.R. value of each Potential Transformer and keep record.
- ii)* Check the Pressure Diaphragm. If pressure diaphragm is defective, replace it with new one as per the procedure explained in the instruction manual.
- iii)* If the insulation resistance of the Voltage transformer is low it can be improved by oil filtration under vacuum.
- iv)* Attending to oil leakage in the PT. If it due to failure of gaskets, the gaskets need to be replaced. (Gaskets should be provided by the contractor)

7. **Switch Yard (all equipment including structural that are not covered elsewhere)**

- a) Checking the yard at periodic intervals and attend to any unusual observations, defects, sparks, loose contacts, red hot spots and loose bolts and nuts etc., and informing the concerned authority. The records of operational persons shall also be consulted for this purpose.
- b) Checking the earth resistance of all earthing pits **half-yearly**.
- c) Checking the Protection and control circuit of each equipment monthly.
- d) Checking of operation and interlock of all equipment monthly.
- e) The premises should be kept neat and clean and de-weeding of the substation shall be done as and when required.

8. **Control & Relay Panels/APFC/Battery and Battery Charger Panel:**

a) **Daily:**

- i)* Check for any tripping chattering in the electrical parts, abnormal noise, overheating in the panels.
- ii)* Check whether indication lamps, enunciator lights, bell, buzzers and hooter are working.
- iii)* Check all terminal cubicles for healthy contacts, minor repairs/services/cleaning etc.
- iv)* Observe the annunciation window, and there is any alarm then consults the concerned authority.
- v)* Check whether the panel is ingress protected.
- vi)* Cleaning of relay cases of dirt etc.
- vii)* Cleaning the panels, relay covers, blowing dust from inner side of panels.
- viii)* Polarity of DC supply.
- ix)* Physical checks of all wiring & connections.

b) **Monthly:**

- i)* Check for the proper working of all ammeters, voltmeters, relays, contactors malfunction etc. and if found faulty/not working replace it with new corresponding spare meters (All spares are to be provided by CPP-IPR).
- ii)* Clean the panels from inside with the help of the blower/ vacuum cleaners.
- iii)* Check all the cables for overheating, tightness of the glands, lugs & crimping.
- iv)* Check the fuse-link & fuse holders.
- v)* Check the control wiring of the panel along with the controls for the proper functioning and tripping at the preset parameters.
- vi)* Tightening of all earthing connections.

c) **Yearly:**

- i)* Check the operation of MCB, relays, TNC.
- ii)* Testing and calibration of relays.

d) **Repairs:**

- i)* The following items can be replaced and made functional if they are found not repairable, then need to be replaced MCB, Contactors, Cable termination with glands, relays, TNC,

selector switch, indicating lamps, voltmeter, ammeter, fuse holders etc. (All spares to be provided by CPP-IPR).

9. **LT Panel:**

a) **Daily:**

- i)* Visual inspection
- ii)* Check whether indication lamps, selector switch, TNC & all meters are working .
- iii)* Check whether all relays, are functioning properly.

b) **Quarterly:**

- i)* Visual inspection of panels.
- ii)* Checking and sealing of cable entry holes.
- iii)* Checking of D.C. supply & control switchgear.
- iv)* Checking of Indication lamps, replacement if required.
- v)* Checking of Indication Meter and rectification/replacement if, required.
- vi)* Checking/replacement of fuses if required.
- vii)* Checking of Bus bar connection, Tightening of nut bolts, cleaning of bus bar if, required.
- viii)* Cleaning and Tightening of bus bar in the bus bar chamber.
- ix)* Tightening of all earthing connections.
- x)* Cleaning of the inside and outside panels using blowers and vacuum cleaner.
- xi)* Cleaning and Tightening of cable Incoming and outgoing terminations.

c) **Yearly:**

- i)* Checking of D.C. supply & control switchgear.
- ii)* Checking & ensuring the closing of the all panels/panel doors including the supply of necessary material if required
- iii)* Cleaning of circuit breakers, lubricating the moving parts as per maintenance procedure
- iv)* Checking of alignment in racking mechanism of breakers for free and smooth movement of circuit breakers.
- v)* Checking of contact erosion of circuit breakers.
- vi)* Checking of mechanical/ electrical interlocks, interlocks within the switchboard to ensure proper functioning of same.
- vii)* Functional operations check of limit switches, auxiliary contacts.
- viii)* Visual inspection of earth connections and checking of tightness
- ix)* Measurement of insulation resistance value of circuit breakers
- x)* Measurement of contact resistance of circuit breaker poles.
- xi)* Measurement of circuit breaker closing and tripping time.
- xii)* Functional operations check of circuit breaker
- xiii)* During operation, any of the items found malfunctioning must be replaced. All material will be provided by CPP-IPR.
- xiv)* Measurement and recording of IR values for Main Bus bar.
- xv)* Checking of all terminations for tightness.
- xvi)* Checking of CT, PT and Relays connections for tightness.
- xvii)* Testing of all panel Relays and Meters, CTs & PTs.

10. **415V Distribution System (MCCBs, MDBs and DBs):**

a) **Daily:**

- i)* Visual inspection
 - ii)* Check whether indication lamps, selector switch, ammeter, MCBs etc are working .
- b) **Quarterly:**
- i)* Check if all the panels are ingress protected.
 - ii)* Routing of cables for new loads if required.
 - iii)* At the time of adding new cable proper tags and ferruling must be done.
 - iv)* Cleaning of the panel.
 - v)* Tightening of all earthing connections.
 - vi)* Checking and sealing of cable entry holes.
 - vii)* Checking of D.C. supply & control switchgear.
 - viii)* Checking of Indication lamps, replacement if required.
 - ix)* Checking of Indication Meter and rectification/replacement if, required.
 - x)* Checking/replacement of fuses if required.
 - xi)* Checking of Bus bar connection, Tightening of nut bolts, cleaning of bus bar if, required.
 - xii)* Cleaning and Tightening of bus bar in the bus bar chamber.
 - xiii)* Cleaning of the inside and outside panels using blowers and vacuum cleaner.
 - xiv)* Cleaning and Tightening of cable Incoming and outgoing terminations.
- c) **Repairs:**
- i)* If any component is found malfunctioning it has to be replaced. Material will be provided by CPP-IPR.

11. **CABLE NETWORK:**

- a) **Monthly:**
- b) Visual inspection of cables.
- c) Checking all cable terminals & joints for overhauling /loose connections and tightening, terminating, rejoining, if required.
- d) Checking and recording or IR values of all cables with megger of suitable range if the concerned feeder cable is idle for more than one month.

Fault Diagnosis:

Wherever there is fault in any cable network, the contractor has to diagnose the fault in the pertinent cable and identify the type and location of faults if any.

12. **EMERGENCY POWER DISTRIBUTION SYSTEM:**

The Emergency Power distribution System caters electrical power demand for different critical systems. It comprises of 750 kVA, 100 kVA, 2 x 30 kVA and 4 x 15 kVA Diesel Generators. This contract does not include the maintenance of the DG sets. In the event of normal power failure, the operational staff will monitor the operation of DG set and log the required data in the log book.

13. **EARTHING SYSTEM:**

- a) **Quarterly:**
- i)* Checking of all earthing connections, joints and cleaning and tightening thereof.
- ii)* Putting adequate quality of water in earth pits.

- iii)* Checking and recording of earth resistance of all points, pits and taking corrective action to improve it, if required.

14. **METERS:**

a) **Daily:**

- i)* Visual inspection.
- ii)* Checking of each meter (Analog/Digital) for its correct operation, if found faulty/not working replace it with new spare.

15. **PROTECTIVE RELAYS**

a) **Quarterly:**

- i)* Visual inspection and cleaning from outside.

b) **Yearly:**

- i)* Checking of each relay for its correct operation by secondary injection.
- ii)* Cleaning of relay contacts by CRC-2-26.
- iii)* Calibration of relay.
- iv)* Checking of current/voltage setting as per recommended setting.
- v)* Checking of time characteristic as per recommended setting.

GENERAL TERMS AND CONDITIONS

It is to be noted that **any damage occurs due to faulty operation or maintenance of the contractor** in all cases, the contractor has to carry out necessary repair with the supply of parts, consumables within minimum possible downtime and make the same functional. If they are found not repairable, then the same needs to be replaced **with new one without any extra cost**. This will be applicable to all equipment, instruments and controls covered in the scope of contractor as well as those equipment, instruments and controls which are part of the plant but not covered in the scope of contractor.

Not with standing as to what is specifically stated under SUB-STATION MAINTENACE SCHEDULE, it shall be responsibility of the contractor to attend to all the preventive & routine maintenance and repairs and breakdown services including replacement of necessary parts and components.

ANNEXURE – I
List of Major Equipments and their Main Specifications

Sr. No.	Name of Equipment	Quantity	Make/ Manufacturer	Specifications
1.	Lightening Arrestor	6 Nos.	Oblum electrical industries Pvt.Ltd	Voltage Rating-33KV Current Rating-10 KA HSV-36 KV
2.	Voltage Transformer	3 Nos.	Automatic Electric Limited	Voltage Ratio-33 KV/110V HSV-36 KV
3.	Current Transformer	6 Nos.	Automatic Electric Limited	HSV-36 KV CT #1 Ratio-400-200-100/5 CT#2 Ratio-200-100-50/5
4.	Circuit Breaker	2 Nos.	ABB India Ltd.	Current Rating-1250 Amp. Type-Spring Charge Mechanism HSV-36 KV
5.	Isolator/Earth Switches	2 Nos.	R.M. Electric Co.	Rating-400 Amp HSV-36 KV (Incoming unit with Earth Switch)
6.	Power Transformers	1 Nos.	Kirloskar Electric Co.Ltd	Rating-2.5 MVA Percentage Impedence-8.00 Vector Group-DYn11 Ratio-33 /.433KV Cooling-ONAN Insulating Oil volume- 3430 ltr. On load tap changer – Not present(OFF circuit Tape switch)

7.	Indoor type Line Control and Relay Panel for 33kV	1 Nos.	Electrokings	<p>Each panel consists of Annunciation Window, Multifunction meter, Analog meters, Relays, indication lamps, hooter, 8-window microprocessor based alarm annunciator, thermostate, spaceheater etc.</p> <p>Relays (numeric & electromagnetic) Mainly consists of</p> <ul style="list-style-type: none"> • Overcurrent relay • Earth Fault relay • Under voltage relay • Relay for DC fail
8.	Indoor feeder Control Relay Panel of 33kV	1 Nos.	Electrokings	<p>Each panel consists of Annunciation Window, Multifunction meter, Analog meters, Relays, indication lamps, hooter, 8-window microprocessor based alarm annunciator, thermostate, spaceheater etc.</p> <p>Relays (numeric & electromagnetic) Mainly consists of</p> <ul style="list-style-type: none"> • Overcurrent relay • Earth fault relay • REF relays • Master trip relays • Auxiliary relays for WTI, OTI, PRV and bucholz relay • Relay for DC fail • Trip ckt. Supervision relays
9.	Indoor Type Auto Power Factor Compensation (APFC) Panel	1 Nos.	Electrokings	<p>Incomer:500A,500KA,TP 'd sine series' MCCB with thermal-magnetic release</p> <p>Meter Display: RYB indicator lamp, 3 phase digital Ammeter and Voltmeter with inbuilt selector switch,500/5A CT,8-stage APFC Relay</p> <p>25KVAR capacitor 4 Nos.: MPP Cylindrical type heavy duty Capacitor, 50A MCB TP,2A SP MCB</p>
10.	Float & Float cum Boost Charger	1 Nos.	Chloride Power Systems and Solutions Ltd.	<p>Float Charger: 415V±10%,3-phase,4 wire, 50Hz±5%, O/P Voltage :110V,O/P current: 15A(float mode)</p> <p>Float cum Boost Charger: 415V±10%,3-phase,4 wire, 50Hz±5%, O/P Voltage :110V,O/P current: 30A(Boost mode)</p>

				Battery Bank: 55Nos.lead acid VRLA Type with 100AH battery cells
11	415V MDB A) ACDB B) DCDB	1 Nos. 1 Nos.	L&T Havells	Incomer MCB: Standards: IEC 60947-2 Current Rating:100A Four pole C curve Outgoing MCB: Standards: IEC 60898-1 Current Raring: 10-60A (C25) Current Rating:16A (C16) Incomer MCB: Standards: IEC 60947-2 For DC supply 130V(C63) Outgoing MCB: For DC supply 130V(C6)
12	Diesel Generator 1)15KVA 2)30KVA 3)100KVA 4)750KVA	4Nos. 2 Nos. 1 Nos. 1 Nos.	Jakson Cummins Kirloskar Electric Co. ltd Jakson Cummins Jakson Cummins	ESN:A08I000444 ESN:A08I000176 ESN:A08I000443 ESN:L07I001986 ESN:1020552 ESN:1020876 ESN:25417692

SECTION – V

SCHEDULE OF SUPPLY OF MATERIAL BY CPP-IPR

Name of work: O&M of 33KV switchyard, 33/.433KV substation, HT & LT switchgear and 415V distribution systems

Sr. No.	Description of Item	Quantity	Remarks
1.	Space for operational staff and storage	One	
2.	Spares of equipments as and when required	As Required	

SECTION-VI

All the forms / tables / data sheets in this section shall be duly completed and submitted along with the technical offer (Part –I)

ANNEXURE – I

BIDDER DATA

A) STRUCTURE AND ORGANISATION

- | | | |
|----|----------------------------|-------------------------|
| 1. | Name of company: | Previous Business name: |
| | Address in full: | If any: |
| | Telephone No.: | Telephone No: |
| | Registered Office Address: | Fax No.: |
| | E-mail Address: | |
| | GST registration No.: | |
-

2. Description of company (e.g. general/engineering discipline and /or specialist in any particular field. Please mention registration No. and class, etc. if available.
-

3. Number of years of experience as a Main Contractor:

In India:

Abroad:

4. Number of years of experience as a sub-contractor:
(Furnish the main contractors name and address)

In India:

Abroad:

5. Name address of associated companies who will be involved in the Station and whether parent/ subsidiary/ other category:
-

6. If the company is subsidiary, what involvement, will the parent company have in Station:
-

7. Does the company belong to Individual/Partnership/Private Limited/Consortium/ Joint Venture:

-
8. Registration No. legal deed, responsibilities and financial involvement of consortium of partners of joint venture, power of attorney, etc.:
-
9. Penalty provision in case a number of consortium of partner abandon his responsibility in between the execution of control:
-
10. Whether the firm is registered under Employees Provident Fund ? Please furnish details of PF and ESI registration
-
11. Whether the firm is having Labour Licensed in case of manpower deputed more than 20 personnel:
-
12. Whether the firm or any of its partners/ Shareholder has been black listed / banned suspended from doing business earlier?
-
13. In case of Corporation (s), please indicate whether the firm was referred to BIFR in the past. If so, please furnish full details thereof:
-

Signature of the Applicant with Seal

PART – II

(PRICE BID)

TENDER NO. CPP-IPR/TPT/TN/2018-19/78, dated 07/01/2018



CENTRE OF PLASMA PHYSICS-INSTITUTE FOR PLASMA RESEARCH

NAZIRAKHAT. SONAPUR-782402, KAMRUP(M)

**TENDER DOCUMENT
FOR
OPERATION AND MAINTENANCE
OF
33/.433KV CPP-IPR OUTDOOR SUB STATION,
HT & LT SWITCH GEARS AND
415V DISTRIBUTION SYSTEMS**

CENTRE OF PLASMA PHYSICS-INSTITUTE FOR PLASMA RESEARCH
NAZIRAKHAT. SONAPUR-782402, KAMRUP(M)

FOR ANNUAL OPERATION & MAINTENANCE CONTRACT SERVICES OF 33/.433KV OUTDOOR
SUB-STATION AT CPP-IPR, NAZIRAKHAT FOR A PERIOD OF ONE YEAR.

PRICE BID FORMAT

Note: The bidder must quote for one year and the contract is extensible for one more year with same rates, terms and conditions.

Sl. No.	Description	Quantity	Unit	Rate	Amount
1	Charges for the Operation & surveillance works of the 33/.433 kV Substation, HT & LT Switch gears and 415V distribution systems as per details given in tender document including compliance of statutory obligations for the scope of Section IV	12	month		
2	Maintenance & assistance works for 33/.433 kV Substation, HT & LT Switch gears and 415V distribution systems as per details given in tender document including compliance of statutory obligations for the scope of Section IV	12	month		
	GST				
	Total (in words)				
	Total(figures)				

Tender Validity:

Place:

Authorized Signatory

Date:

Company Seal