

**HINDUSTAN AERONAUTICS LIMITED**  
**CORPORATE OFFICE,**  
**NO.15/1, CUBBON ROAD, BANGALORE-560001.**

HAL/CO/WE/010/13/776

19 December 2013

**NOTICE INVITING TENDER (E -Tendering Mode Only)**

Online E-tender is invited in Two-Bid System in E-mode from reputed contractors having experience in similar nature of work/ services. Free view Tender documents are available on HAL Website [www.hal-india.com](http://www.hal-india.com) under link Tenders, E-Procurement portal (w.e.f **23.12.2013**). Interested agencies are requested to sign-in (new user sign-in only with DSC) online to obtain user-ID and password using Digital Signature. It is requested to download the Tender on acceptance of terms & conditions. The pre-qualification profile and price bids duly filled along with scanned copy of credentials should be uploaded on E-Portal of HAL using Digital Signature before the last date & time for submission as mentioned in the tender notice. The credentials as listed elsewhere in the tender documents along with mandatory documents shall be uploaded online.

Sl. No	Name of the works	Estimated value in Rs. Lacs.	EMD in Rs.	Cost of tender documents + Applicable. Tax	Minimum solvency required in Rs. Lacs.	Period of work/ services
1	2	3	4	5	6	7
1	Periodical Services such as painting, polishing etc. at HAL Corporate Office, Bangalore.	18.52	18,520.00	1050.00	7.50	Six months

A.	Documents available and submissions at	<a href="https://eproc.hal-india.com">https://eproc.hal-india.com</a>
B.	Period of availability of Tender Documents online	23.12.2013 to 17.01.2014
C.	Last date/time for up loading of Tender	17.01.2014 up to 14:00hours
D.	Opening date/time of e-tender	17.01.2014 up to 14:30hours

2. **Earnest Money Deposit/ Tender Cost:** Earnest Money Deposit/ Tender Cost as specified against the work is to be furnished in the form of Demand Draft/ Bankers Cheque drawn in favour of M/s. Hindustan Aeronautics Limited, Corporate Office, Bangalore, towards EMD & the cost of tender documents, as indicated under columns 4 & 5 of the above table, from a Nationalized Bank / Scheduled Bank. Deposit through any other form will not be accepted. The scanned image of earnest money deposit is to be uploaded online along with the tenders and the original one to be submitted to the address mentioned below. The details of DD No. / date etc., are to be provided in the prequalification profile also. The cost of tender document and EMD should reach the following address up to 14.00 Hrs. on the last date of submission of tender document as mentioned in tender notice (i.e.) **17.01.2014**, failing which tender will not be opened. Any postal delay or delay on account of any other reasons what so ever will not be considered.

**Manager (Plant Maintenance)**  
**Works Engineering Department**  
**M/s. Hindustan Aeronautics Limited**  
**Corporate Office**  
**No.15/1, Cubbon Road**  
**Bangalore - 560001**  
**Phone No: 080-22320031**

Filled in Tender Document with the credentials and required documents as listed below shall be uploaded as per the requirement given in the e- portal.

- i) Experience certificates from appropriate authorities with full details of works carried out during the last Seven years in any Government Organization/ Departments such as, MES, State & Central PWD, Railways, Public Sector Undertakings, Private companies doing similar nature of work etc.(statement signed by the bidders shall not be accepted in this regard).
- ii) Registration with HAL/ Other organizations.
- iii) Latest Banker's Solvency Certificate from any Nationalized/Scheduled Bank for the minimum amount of Rs.7.50Lacs as indicated in column-6 of the above table (issued on or after 16.01.2013).
- iv) Copy of PAN/ GIR No. Registration Certificate issued by Income Tax Authority.
- v) Documents relating to the constitution of the Firm i.e., sole Proprietorship Affidavit, Partnership Deed, Articles of Association, etc.
- vi) Audited Financial Statements (Profit & Loss statement and Balance Sheet for last 3 years i.e. 2010-11, 2011-12 & 2012-13) duly signed by Auditor along with Auditor's report.
- vii) Any other documents requested to be completed and submitted by the bidders in accordance with tender document mentioned elsewhere.

Notes – a) Applications without the above Documents/Certificates will not be considered.  
b) Joint Ventures are not eligible to participate.

**Eligibility criteria for the work shall be as under: -**

- i) Average annual financial turnover during each of the last 3 years ending 31<sup>st</sup> March of the financial year (i.e. 2010-11, 2011-12 & 2012-13) should be at least 30% of the estimated cost (i.e.Rs.5.56 Lacs.)
- ii) Experience of having successfully completed similar works during the last 7 years ending with the last day of the month previous to the one in which applications are invited, as indicated below:
  - a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost (Rs. 7.41 Lacs.)

or

b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost (Rs.9.26 Lacs.)

or

c) One similar completed work costing not less than the amount equal to 80% of the estimated cost (Rs.14.82 Lacs.)

iii) Latest Banker's Solvency Certificates from any Nationalized Bank/ Scheduled Bank for minimum amount of Rs.7.50 Lacs.

Definition of similar work: Similar work in this case means –Civil/ Electrical works.

The tender must be submitted online through HAL's "e-Procurement system" at <https://eproc.hal-india.com>. Bidder shall submit both "Technical Bid-A" and "Price Bid-B" through HAL's e-Procurement Portal only. Bids submitted in any other form, such as courier/ post/ in-person/ fax/ telegram/ telex, shall not be accepted against this Tender. Any change in bid after the "Due Date & Time of Tender-Submission" is not allowed. Bidders are advised, in their own interest, to ensure that their bids are submitted well before the "Due Date & Time of Bid-Submission" as HAL's "e-Procurement System" at <https://eproc.hal-india.com>. The system will not allow submission of tenders once the closing date and time of the Tender (i.e. Due Date & Time of Bid-Submission) is reached. HAL shall not be responsible if bidder is not able to submit the bid on account of failure in network / internet connection, uploading delay, inadequate system capacity etc. at bidder's end.

The General Manager(HR), HAL Corporate Office, Bangalore reserves the right to accept any tender and award the work in part or in full or in any manner at his sole discretion or reject any or all tenders without assigning any reason thereof.

**Yours faithfully,  
For HINDUSTAN AERONAUTICS LIMITED,  
Corporate Office**

**(SAM BASSALIL JOB)  
DEPUTY GENERAL MANAGER (WORKS)**

**TO:**

**Appendix - B**

**HINDUSTAN AERONAUTICS LIMITED  
CORPORATE OFFICE, WORKS ENGINEERING DEPARTMENT,  
NO.15/1, CUBBON ROAD, BANGALORE-560001.**

Tele-Fax: 080-22320031

HAL/CO/WE/011/13/777

19 December 2013

M/s./ Mr. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

Sub: **“Periodical Services such as painting, polishing etc. at HAL Corporate Office, Bangalore.”.**

Ref: 1) Tender Notice No. HAL/CO/WE/010/13/----- dated -----

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With reference to the above tender for the subject work, Tender documents are available on HAL Website [www.hal-india.com](http://www.hal-india.com) under link Tenders, E-Procurement portal (w.e.f **23.12.2013**). You are requested to sign-in (new user sign-in only with DSC) online to obtain user-ID and password using Digital Signature and down load a set of blank tender documents which contain the following:

- |     |   |   |            |
|-----|---|---|------------|
| 1.1 | Tender Notice                                     | - | Appendix-A |
| 1.2 | Tender  | - | Appendix-B |
| 1.3 | Instructions to Bidders                           | - | Appendix-C |
| 1.4 | General conditions of contract                    | - | Appendix-D |
| 1.5 | Special conditions of Contract labour regulations | - | Appendix-E |
| 1.6 | General specifications                            | - | Appendix-F |
| 1.7 | Schedule of materials to be issued by HAL         | - | Appendix-G |
| 1.8 | Bill of Quantities & other enclosures             | - | Appendix-H |
| 1.9 | Tender Agreement                                  | - | Appendix-I |

2. Before quoting and submission of tender for the work, you are advised to go through all the documents.

3. You are requested to submit the tender in two-bid system

## **Technical/ Commercial Bid-A**

### **Technical/Commercial bid shall contain the following:**

- i) Tender booklet/ Technical specification etc. for the subject work
- ii) A Demand Draft of **Rs. 18,520.00** drawn from any Nationalized/ Scheduled Bank in favor of M/s. Hindustan Aeronautics Limited, Corporate Office, Bangalore, towards EMD, payable at Bangalore.
- iii) Experience certificates from appropriate authorities with full details of works carried out during the last Seven years in any Government Organization/Departments such as, MES, State & Central PWD, Railways, Public Sector Undertakings, Private companies doing similar nature of work etc.(statement signed by the bidders shall not be accepted in this regard).
- iv) Registration with HAL/ Other organizations.
- v) Latest Banker's Solvency Certificate from any Nationalized/Scheduled Bank for the minimum amount of Rs.7.50 Lacs as indicated in column-6 of the above table (issued on or after 16.01.2013).
- vi) Copy of PAN/ GIR No. Registration Certificate issued by Income Tax Authority.
- vii) Documents relating to the constitution of the Firm i.e., sole Proprietorship Affidavit, Partnership Deed, Articles of Association, etc.
- viii) Audited Financial Statements (Profit & Loss statement and Balance Sheet for last 3 years i.e. 2010-11, 2011-12 & 2012-13) duly signed by Auditor along with Auditor's report.
- ix) Any other documents requested to be completed and submitted by the bidders in accordance with tender document mentioned elsewhere.
- x) The contractor registered as Electrical/Mechanical contractor should produce Electrical license. In case the Electrical / Mechanical work is executed by civil contractor, He/They should engage licensed Electrical contractor/personnel as per Indian Electricity Act. The bidder should enclose an undertaking on this aspect.
- xi) Contractors should furnish the required particulars in the Technical Bid and also submit/upload all relevant documents/catalogue along with the Technical/Commercial Bid-A. In case the contractor fails to submit/upload the above details / documents in full, the tender will be rejected.

### **Eligibility criteria for the work shall be as under: -**

- ii) Average annual financial turnover during each of the last 3 years ending 31<sup>st</sup> March of the financial year (i.e. 2010-11, 2011-12 & 2012-13) should be at least 30% of the estimated cost (i.e.Rs.5.56 Lacs.)

ii) Experience of having successfully completed similar works during the last 7 years ending with the last day of the month previous to the one in which applications are invited, as indicated below:

a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost (Rs. 7.41 Lacs.)

or

b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost (Rs.9.26 Lacs.)

or

c) One similar completed work costing not less than the amount equal to 80% of the estimated cost (Rs.14.82 Lacs.)

iii) Latest Banker's Solvency Certificates from any Nationalized Bank/ Scheduled Bank for minimum amount of Rs.7.50 Lacs.

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### **Price Bid-B**

1. Price Bid shall indicate the item rates quoted against the bill of quantities of the above tender documents which should be duly filled in the respective portion of the tender by you .

2. No commercial or technical condition or clarification of any sort shall be indicated by the contractor in the Price Bid. Otherwise, the tender shall be rejected.

3. Submit both Technical Bid Excel File & Price Bid Excel File through e-tendering mode on or before **17.01.2014** 14:00hrs (<https://eproc.hal-india.com>) and get the acknowledgement through online. Manual submission is not accepted.

4. Please submit the original demand draft amounting to **Rs. 18,520.00** towards the Earnest Money Deposit in favor of M/s HINDUSTAN AERONAUTICS LIMITED, CORPORATE OFFICE, BAGALORE -560 001 drawn on any Nationalized/Schedule bank payable at Bangalore. Scanned copy of the DD with details should be uploaded online. Original DD for Earnest Money Deposit and Tender Cost are to be submitted latest by 14:00 hrs on **17.01.2014**. Tenders without Earnest Money Deposit will be rejected.

5. The period of work/service is to be taken as six months.

6. You are required to execute an Agreement with all the above terms and conditions in the tender, in case your tender is accepted.

Thanking you,

**Yours faithfully**  
**for HINDUSTAN AERONAUTICS LIMITED**  
**Corporate Office, Bangalore**

**K.Srinivasarao**  
**Manager (PM)**

**HINDUSTAN AERONAUTICS LIMITED**  
**CORPORATE OFFICE, WORKS ENGINEERING DEPARTMENT,**  
**NO.15/1, CUBBON ROAD, BANGALORE-560001.**

No.....

Dated.....20...  
Sl.No.....

To  
M/s.

Dear Sir/Sirs

Sub:

With reference to your letter No..... Dated ..... we are herewith forwarding a set of blank tender documents in respect of the above cited work which contain the following;

A book let containing

Tender Notice	-	Appendix-A
Tender	-	Appendix-B
Instructions to tenderers	-	Appendix-C
General conditions of contract	-	Appendix-D
Special conditions of contract	-	Appendix-E
General specifications	-	Appendix-F
Schedule of materials to be supplied by HAL	-	Appendix-G
Bill of quantity and other enclosures, drawings etc.	-	Appendix-H

You are requested to fill you lowest rates in the bill of quantities of the above tender documents The completed tender should be submitted through online (<https://eproc.hal-india.com>) and get the Acknowledgement through online on or before **17.01.2014, 14.00** hours and the tender will be opened on the same day at 14.30 hours through online.

Please submit the hard copy of demand draft amounting to **Rs. 18,520.00** towards the Earnest Money Deposit in favour of M/s HINDUSTAN AERONAUTICS LIMITED, CORPORATE OFFICE, BAGALORE-560 001 drawn preferably on Indian Bank or any other Nationalized/schedule bank payable at Bangalore and the same EMD Scanned DD with Details should submitted through online. Tenders without Earnest Money Deposit will be rejected.

The contractor to upload necessary documents as indicated in the prequalification profile as under or indicated elsewhere in the tender:-

**a)** Solvency Certificate from any nationalized / Scheduled Bank issued not earlier than 12 months from the Final Date of Tender Submission for the value not less than **Rs. 7.50 Lacs**. The solvency certificate should be in the name of Individual in case the party is an individual or in the name of the firm in case of a partnership firm or in respect of all partners of a firm.

**b) Experience Certificate**

Experience in similar work as defined in NIT to be supported by certification including the name and place of Organisation where works were executed and value of each work done during the past seven years.

- c)** Latest Income Tax/Sales Tax clearance certificates.
- d)** Sole Proprietorship deed if any.
- e)** Partnership deed if any
- f)** Articles of association if any.
- g)** List of Technical/Supervisory & skilled persons employed.
- h)** List of Tools and plants under your procession.

**Thanking you**

**Yours faithfully**

**For HINDUSTAN AERONAUTICS LIMITED**

**Signature of the Officer issuing the tender documents.**



**HINDUSTAN AERONAUTICS LIMITED, CORPORATE OFFICE**  
**TENDER NOTICE**

Name of work: **Periodical Services such as painting, polishing etc. at HAL Corporate Office, Bangalore.**

1. E Tenders for the above noted work are hereby invited from approved contractors of HAL Corporate Office/ Contractors experienced in works of similar kind and magnitude. Tenders will be received upto 14.00 Hrs. on **17.01.2014** in the prescribed form and will be opened through online mode at 14.31 Hrs. on the same day in the presence of such of those tenderers or their authorized representatives.

2. Particulars regarding the proposed work can be obtained on the working day during working hours from 09.00. to 16.00 Hrs. A prospective **Tenderer** requiring any clarification of the Bidding documents may notify HAL, Corporate Office, Bangalore, in writing or by cable (hereinafter “cable” includes Telex and Facsimile) at the address indicated in the invitation to Bid. HAL, Bangalore, will respond to any request for clarification, received earlier than 15 days prior to the dead line for submission of Bids. The response will be hosted on HAL e-procurement portal as Corrigendum, which will be treated as part of tender document.

3. Tenders must be submitted by the Tenderer through online mode only (<https://eproc.hal-india.com>)

4. All entries in tender documents should be with contractor's presence, after opening errors will not be considered.

5. Tenderers signature is not required in online submission mode.

6. Unit rates should be quoted in figures and word column and Amount column will generate automatically. These rates shall be for the finished work at site. Amount of each item and the total page by page and the grand total amount of the whole contract should also generate automatically.

7. Item rate tender containing percentage below/ above will be summarily rejected.

8. Any error in description, quantity or rate in Appendix-H (Bill 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, rates, specifications or from any of his obligations under the contract in case of any discrepancy in the rates quoted amount page totals grand total or the following procedure shall be adopted as final.

9. In quoting their rates, the tenderers are advised to take into account all factors of any fluctuations in the market sales etc. No claims will be entertained after acceptance of the tender or during the currency of the contract.

10. Before tendering, the tenderers are advised to inspect the site of work and its environments and be well acquainted with the actual working and other prevalent conditions, position of materials and labour, specifications and all other documents which form part of the agreement to be entered into.

11. The rates quoted in the tender shall remain valid for four months from the date of opening of tenders.
12. In the event of a tender being submitted by a partnership firm the tender must be uploaded by a person holding Power of Attorney on behalf of the firm concerned, a copy of the power of attorney duly attested by a Gazetted Officer must accompany the tender. The attested and certified true copy attested only by a Gazetted Officer) of the partnership deed must be enclosed along with the tender submitted by the partnership firm.
13. The tender shall be accompanied by a crossed demand draft for **Rs. 18,520.00** as earnest money drawn on Bangalore in favour of the Hindustan Aeronautics Ltd. Corporate Office. The earnest money will be refunded to the unsuccessful tenderer after the award of work is finalized. In the case of the successful tenderer the earnest money will be retained as part of the security deposit and will be refunded as per procedure laid in the General conditions of the contract.
- The earnest money is liable to be forfeited in case the Accepting Officer is of the opinion that the tender is not bonafide or the tenderer modifies or revokes the tender during the period the tenders are kept open. The decision of the Accepting officer wherever a tender is bonafied or not is final and conclusive and is binding on the tenderer. The earnest money is also liable to be forfeited in case the tenderer quotes freak rates and makes his tender as a whole unworkable.
14. The earnest money deposit paid along with the tender by the contractor whose tender has been accepted will be adjusted towards security deposit. Within 30 days of the contract the contractor shall deposit the difference between the earnest money and the full security deposit amount as calculated. Where the contractor has lodged a standing earnest money, he shall deposit the full amount of the required security deposit on or before the date indicated in the acceptance letter of the tender.
15. HAL reserves absolute right to appropriate, deduct, set-off or retain/ withhold any amount payable to the tenderers or contractor under any head of account including earnest money under this contract or any other contract or any other transactions against any sum, which in the opinion of HAL is due to HAL whether Sub-judice or not under any contract, deal or transaction whatsoever.
- All compensations or other sums of money payable by the contractor under the terms of this contract may be deducted from his security deposit or from any sums, which may be due to or become due to the contractor by company or any account whatsoever and in the event of the security deposit being reduced by reason of any such deductions, the contractor shall within 10 days make good in cash.
16. If a tenderer withdraws his offer after submission of his tender, fail to start the work in accordance with the instructions of the Engineer-in-charge, the earnest money deposited by him may be forfeited without prejudice to any other remedy available to the company under the contract.
17. Hindustan Aeronautics Ltd. Corporate office, Bangalore reserves the right to reject any or all tenders received or accept any tender or part thereof without assigning any reason. In the case of acceptance of a part of the tender, time for completion may also be reduced to the extent considered appropriate by the Accepting Authority. The acceptance of the tender in part as

mentioned above is the sole discretion of the Accepting Authority and shall be binding on the contractor.

18. Conditional tenders, tenders containing freak rates and amounts, tenders which are incomplete or otherwise considered defective and tenders not in accordance, with tender conditions laid down by the Accepting Officer are liable to be rejected.

19. Tenders not submitted on prescribed forms are liable to be rejected.

20. The work must be completed within a period of **six months** from the day of issue of the order to commence work.

21. The General Manager(HR), Hindustan Aeronautics Ltd., Bangalore shall be the Accepting Officer hereinafter referred to as such for the purpose of this contract.

22. This tender notice shall be deemed to form an integral part of the contract to be entered into for this work.

23. The acceptance of the tender will rest with the General Manager(HR) who does not bind himself to accept the lowest tender and reserves to himself the authority to accept or reject any or all tenders without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

24. The tenderers are required to take into account while quoting their rates, all factors including any fluctuations in the Market Rates, etc., No claim will be entertained on this account. However, price escalation clause as provided in this tender shall be applicable. Rates quoted shall include all Taxes such as sales tax, turn over tax, service tax, entry tax, sales tax on works contracts and all duties and levies like excise duty, royalty, and any other tax levied by State and Central Governments Cess etc. Nothing extra, whatsoever shall be payable and HAL, Bangalore will not entertain any claim whatsoever in this regard. No claim will be entertained due to increase in duties, taxes etc., in the Budgets/ during currency of contract.

25. On acceptance of the tender the name of the accredited representative of the contractor who would be responsible for taking instructions from our Engineer-in-charge shall be communicated by the contractor.

26. The contractor must produce valid income tax clearance certificate and evidence showing the appropriate and eligible class of the contractor on the approved list of P.W.D, M.E.S, Central Government undertakings etc.

27. The contractor shall also produce a list of fixed/ immovable assets in his name or in the name of his firm, along with location in which the same are situated and approximate value thereof, in addition to the solvency certificate.

28. The contractors shall produce along with the tender, details of works carried out details of works already tendered, details of works in hand, details of technical personnel employed, and list of Machinery and equipment owned by them in the prequalification profile.

To  
The Deputy General Manager(Works)  
Works Engineering Department  
Hindustan Aeronautics Limited  
Corporate Office  
No.15/1, Cubbon Road  
Bangalore-560001.  
Sir,  
Sub: **Submission of tender**

I/We have carefully gone through all the contents of the following documents connected with the aforesaid work and I/We hereby agree to abide by all the terms and conditions laid down therein:-

- |   |              |
|---|--------------|
| - Tender notice                                 | - Appendix-A |
| - Instructions to tenders                       | - Appendix-C |
| - General Conditions of the Contract            | - Appendix-D |
| - Special Conditions of the Contract            | - Appendix-E |
| - General specification                         | - Appendix-F |
| - Schedule of materials to be supplied by HAL   | - Appendix-G |
| - Bill of quantities, its enclosures & drawings | - Appendix-H |

I/We enclose herewith a demand draft at call No..... Dt..... for an amount of Rs..... towards earnest money drawn in favour of HAL Corporate Office which may please be refunded if the tender is not considered.

I/We further agree to deposit the amount towards the difference between the security deposit and E.M.D to make the full security deposit for this work as provided in the instructions to Tenderers, in case my/our tender is accepted, before the date indicated in the acceptance letter.

I/We further agree to execute all the works referred to in the said documents upon the terms and conditions, contained or referred to there in and as detailed in the above Appendices, annexures and also agree to carry out deviation as may be ordered to a maximum of 10% of the contract sum.

Yours faithfully

(Tenderer)  
Encl: As above.

INSTRUCTIONS TO TENDERERS

1. Tender is open to all contractors. The contractors shall upload all the documents as required to be uploaded as per the prequalification profile or mentioned elsewhere in the tender document.
2. The tender should be accompanied by a list of contracts already held by the contractor at the time of submitting tender and giving particulars in Excel format given in the website
3. a) The tenderer is advised to obtain the tender documents from the E tendering website (<https://eproc.hal-india.com>). The tenderers are advised to upload the documents well within the time. Any plea by the tenderer for non-uploading the documents due to system fault etc. will not be entertained.  
  
(b) The tenderers are required to verify all the documents downloaded by them as to their completeness in all respects and satisfy themselves before submitting the same. If any short receipt of pages or otherwise defective, the same shall be brought to the notice of HAL, Corporate Office immediately and before opening of tenders. If no such defects are reported, it shall be deemed that the tenderers, received the said documents without any defects and no complaint whatsoever in this regard shall be entertained after opening of tenders.
4. Special care should be taken to write rates in figures as well as in words against each item in the bill of quantity in such a way that interpolation is avoided.
5. (a) The rates quoted shall include and shall be deemed to have included all taxes including the taxes on works contract, service tax, excise duty, octroi duty, fees, royalties and any other duties or fees whatsoever leviable under the State or Central Govts. or any other local authorities. The rates shall also include and shall be deemed to have included any other expenses like transportation of materials to the work site, handling, loading & unloading thereof and taxes, duties, royalties, fees, whatsoever on materials. It shall be the responsibility of the contractor to bear any increases at future date after opening of tenders in the rates of taxes, duties, royalties, fees, etc. new taxes, duties royalties, fees etc. by any Govt. or local authorities.  
  
(b) The rates quoted shall be for execution of finished item of works as indicated in the Bill of quantity, which include cost of all materials, consumables transportation to site, all taxes, duties royalties, octroi cost of incidental charges on tools/ plants and cost of labour to complete the work.
6. Should a tenderer find discrepancies or omissions in the drawings or any of the tender documents or should be in doubt as to their meaning he should at once address the authority inviting tender for clarification. Every endeavor is made to avoid any errors which can materially affect the basis of the tender but the successful tenderer shall take upon himself to provide for the risk of any error which; may be subsequently discovered and shall make no subsequent claim on account thereof. The decision of the Manager/ Senior/ Chief Manager (Works), Hindustan Aeronautics Limited, Corporate Office shall be final and binding on the tenderers in this respect.

7. Tenders are required to be uploaded well within the time. These should be uploaded with due allowance for any system hang. The e-procurement system will automatically stop uploading of any document after the due date & time indicated.

8. Where the tender called for, covers only building work and excludes internal services such as sanitary and water supply installations, electrification etc., the building contractor will have to leave pockets, holes etc., as required for the other works and will have to phase this work to ensure smooth progress of the work of the other agencies as directed by the Engineering-in-charge.

9. Where the tender schedule form contains special items such as interiors, special finishes, foam concrete for insulation, special water proofing treatment to roofs or any other specialized items etc., it will be entirely at the discretion of HAL to allot these items of work to any contractor as deemed fit by the HAL. In such cases, the main building contractor will have to ensure the smooth progress of all works.

10. The contractor's responsibility for this contract shall commence from the date indicated in the order of acceptance of his tender. The schedule date of completion of this work will be twenty four months from such date and the contractor will have to plan his work accordingly.

11. a) (i) The maintenance period for this work shall be one year from the actual date of completion of this work in all respects. However, if the work in question under this contract is for routine maintenance services like white/ colour washing, painting etc., there is no maintenance period for such works.

(ii) If the work under this contract is for water-proofing treatment the maintenance period is same as that of service guarantee which shall not be less than five years.

(iii) If the work under this contract is for construction of special type of structure or execution of special types of services, the maintenance period shall be as indicated in the bill of quantities (Appendix-H).

(iv) During the above maintenance period the contractor shall be responsible to make good of all defects or damages which are due to defective workmanship/use of substandard materials at free of cost. If the contractor fails to make good such defects or damages even after intimation to him within a reasonable time, HAL shall get the same rectified as deemed fit at the contractor's risk and the expenditure incurred by HAL shall be recovered from any bills or deposits of the contractor either pertaining to this contract or from any other contracts.

b) After completion of the work in all respects 50% of the security deposit shall be retained by HAL towards defect liability deposit, which will be refunded without interest after successful completion of the aforesaid maintenance period. However, the balance 50% of security deposit amount will be refunded without interest along with final bill payment after completion of work in all respects.

c) The contractor shall consider and include all his claims whatsoever in his final bill which shall construe and mean that the contractor shall not have any other claims whatsoever against HAL order than those indicated in the final bill "NO DEMAND CERTIFICATE" stating that he has no other claims on HAL except the claims indicated in the final bill and defect liability amount should be submitted along with the final bill.

12. If the contractor desires to entrust his affairs to any person or agent, a power of attorney duly authenticated by a Magistrate/ Notary/ Court/ Judge in favour of such person/ Agent, shall be submitted to HAL, acceptance of which shall be at the discretion of accepting officer.

13. If the tenderer deliberately gives wrong information in his tender or creates conditions favourable for acceptance of his tender, the accepting officer reserves the right to reject such tender at any stage and forfeit the earnest money. The accepting officer shall be at liberty to foreclose the contract without prejudice to any other remedies that may be available to HAL under the contract even after the acceptance of the tender.

14. Words imparting the singular number shall also be deemed to include the plural number and vice versa where the context so requires.

15. The contractor shall make all arrangements for execution of agreement at his own cost using HAL standard format on non-judicial stamp paper and execute the same.

16. Several documents forming the contract are to be taken as mutually explanatory in one another, detailed drawings and figured dimensions in the drawings shall be followed in preference to scaling the drawing.

17. If there are varying or conflicting provisions made in any one of the documents forming part of the contract, the Engineer-in-charge shall be the sole deciding authority with regard to the intention of the document and his decision in this respect shall be final and binding.

18. The tenderer shall not increase his quoted rates in case the accepting officer negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be valid for a period of 4 months from the date of opening of tenders.

19. Canvassing in any form in connection with the tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to be rejected.

20. All contractors will have to produce latest Income Tax clearance certificate from the income tax officer concerned along with their tenders. If the successful tenderer fails to produce the Income Tax clearance certificate within the stated period the Earnest money and security deposit of the tenderer may be forfeited and the contract terminated.

21. The amount of Earnest Money which a Contractor shall deposit along with the tender equal to and amount of 1% of the approx. estimated amount put to tender of the work subject to a minimum of Rs.500.00 and subject to maximum of Rs.50 Lakhs.

22. The Security Deposit for works in HAL shall be determined as follows:

**A. Civil, Electrical & Consultancy works:**

a. The successful tenderer will be required to furnish security deposit for the fulfillment of contract. The security deposit shall be 10% of the original contract sum. This amount shall not be altered during the execution of work due to deviation, either plus or minus.

- b. Security Deposit shall consist of two parts;
  - i. Performance Guarantee to be submitted at award of work, and
  - ii. Retention money to be recovered from Running Bills.
- c. Performance Guarantee should be 5% of Contract amount and should be submitted as Bank Guarantee, DD or any other form of deposit stipulated in Tender Document within 30 days of receipt of letter of acceptance.
- d. Retention Money should be deducted at 5% from Running Bills. Total of Performance Guarantee & Retention Money should not exceed 10% of Contract amount. However, Retention money recovered should not be less than 5% of Final Bill value including Deviations if any.
- e. 5% Performance Guarantee should be refunded within 30 days of the issue of the defect liability Certificate (taking over Certificate with a list of defects) / Completion Certificate. Retention money should be refunded after Defects Liability period.

**B. Service Works:**

- a. The successful tenderer will be required to furnish security deposit for the fulfilment of contract. The security deposit shall be equal to one month value of the contract amount. This amount shall not be altered during the execution of work due to any kind of deviation [either plus or minus] or extension of duration of contract.
- b. In addition to security deposit 5% retention money shall be deducted from the bills which shall be released after six months / one year / satisfactory completion of work whichever is earlier and on production of proof / vouchers to effect that ESI / EPF contribution have been made and fulfilment of the entire statutory obligation under the contract by the contractor. Retention money will be continued to be recovered when the contract gets amended due to additional payments arising out of variable dearness allowances, increase in EPF / ESI contribution etc., as notified by the statutory authorities / extended period of the contract. However, retention money for the original contract period shall be refunded after fulfilling the ESI / EPF requirements as per contract if the contract gets extended.
- c. Whenever the contract is to be amended due to additional payment arising out of variable dearness allowances, increase in EPF / ESI contribution etc. [Statutory Increases], as notified by the statutory authorities, the security deposit on the increased amount shall be waived off.

22.1 The contractor shall deposit the difference between earnest money and full security deposit by Demand Draft / Bank Guarantee within 30 days of acceptance or before commencement of work whichever is earlier. Any delay in depositing the security deposit as above shall attract a penal recovery for the delay period on the balance security deposit amount [if EMD is deposited] @ 2 % of security deposit per week or part thereof with a maximum penalty of 25% of security deposit. The non-submission of security deposit in time shall be reflected in the completion certificate of the Contractor.

22.2 For works costing Rs.50 Lakhs [accepted contract value] and above Bank Guarantee can be accepted. Any delay in submitting Bank Guarantee shall attract the same penal recovery as indicated above. The Bank Guarantee shall cover the completion period of the work plus three months / extended period plus three months, as per standard format.

22.3 The contractor shall not be generally allowed to commence the work unless security deposit has been paid. However, in exigency and to facilitate the completion of work, the same



may be allowed with an undertaking from the contractor that the security deposit shall be deposited within the period as indicated at 22.1. No payment shall be released to the Contractor unless Security Deposit is submitted and contract agreement is executed. Security deposit will be released along with the final bill.

23. The security deposit as a whole is liable to be forfeited incase the contractor fails to complete and abandons the work.

24. When-ever the Engineer-in-charge of the work feels it is necessary and advises the contractor for production of bills for any materials whatsoever procured/purchased by the contractor for use and incorporation in the work, the contractor shall produce such bills in proof of such purchase/procurement from bonafide dealers/manufacturers. Such as demand for production of bills can be made by the Engineer-in-charge even after use and incorporation of such materials in the work after clearance by the Engineer-in-charge for the quality of the materials. In the event of such a demand by the Engineer-in-charge for production of bills, the contractor shall not use and incorporate such materials in the work without the prior clearance in writing from the Engineer-in-charge. In case, the contractor fails to produce the bills or uses/incorporates the materials in the work against which bills are advised to be produced without prior clearance of Engineer-in-charge, no payment against any work under the contract executed by the contractor shall be made.

25. These instructions to tenderers shall be deemed to form an integral part of the contract

Dy General Manager(Works)  
HAL Corporate Office

I ACCEPT THE ABOVE

**HINDUSTAN AERONAUTICS LIMITED**  
**CORPORATE OFFICE BANGALORE**  
**GENERAL CONDITIONS OF THE CONTRACT**

**CHAPTER-I****1. GENERAL CONDITIONS OF THE CONTRACT****1. DEFINITION:**

In these General conditions of contract, the following terms shall have the meaning hereby assigned to them except where the context otherwise requires.

a) CONTRACT means tender and acceptance thereof, which include the following documents.

- |  |   |            |
|--|---|------------|
| a) Tender notice                                     | - | Appendix-A |
| b) Tender  | - | Appendix-B |
| c) Instructions to tenderers                         | - | Appendix-C |
| d) General conditions of contract                    | - | Appendix-D |
| e) Special conditions & contract labour(R&A) Act     | - | Appendix-E |
| f) General Specifications                            | - | Appendix-F |
| g) Schedule of materials to be supplied by HAL       | - | Appendix-G |
| h) Bill of quantities, drawings and other enclosures | - | Appendix-H |
- i) Acceptance letter and any other conditions mutually accepted by the parties after issue of acceptance letter.

b) 'TENDER DOCUMENTS' means the appendix A to H as aforesaid given to the contractors on payment for the purpose of their tenders.

c) The 'WORKS' means the work described in the tender documents, in individual work order and accompanying drawing and specifications as may be issued from time to time to the contractor by the Engineer-in-charge-within the powers conferred upon them, including all modifications, additional work and obligations to be carried out either at the site or at any Factory-workshop or other places as required for the performance of the contract.

d) The "SITE" means the land and other places on, into or through which the work is to be executed under the contract or any adjacent land path or street, which may be allotted to or used for the purpose of carrying out the contract.

e) The "CONTRACTOR" means the individual firm or company whether incorporated or not undertaking the work and shall include the legal, personal representatives of such individual, or the persons composing the firm or the company, successors of the firm or company and permitted assigns of such individual or firm or company and the authorized representatives and power of attorney holders.

f) "I.S.S" means the Indian Standard Specifications and "MES" means the Military Engineering Services.

g) "THE ENGINEER IN CHARGE" means the Executive Engineer or Deputy Manager(Works) deputed by the Superintending engineer or Manager(Works)/ Chief engineer or Senior/ Chief Manager Works to supervise the work or part of the work.

- h) HINDUSTAN AERONAUTICS LIMITED, Corporate Office hereinafter referred to as HAL shall mean the Board of Directors, General Manager or other Administrative Officers of the said company, Chief Engineer or Chief Manager(Works)/ Superintending Engineer/ Manager(Works) is authorized to invite tenders and enter into contract for Works on behalf of the company.
- i) The “CONTRACT SUM” means the sum accepted or the sum calculated in tender in accordance with the prices accepted or at the contract rates as payable to the contractor for the entire execution and full completion of the work, as agreed to by the parties.
- j) “APPROVAL” “DIRECTED” means the approval or direction of the Superintending Engineer or Chief Engineer or Senior Manager (Works) or Chief Manager (Works), HAL.
- k) The “FINAL SUM” means the actual amount payable under the contract by HAL to the contractor for the entire execution and on full completion of the work.
- l) The “DATE” of the completion is the date or dates for completion of the whole or any part of the work as set out in or ascertained in accordance with the individual work order or any subsequent agreed amendments therein.
- m) A “DAY” means a day of 24 hours irrespective of the number of hours worked or not worked in that day.
- n) A “WEEK” means seven days without regard to number of hours not worked in any day in that week.
- o) A “WORKING DAY” means a day other than that prescribed by the Negotiable Instruments Act as being holiday and consists of the number of hours of labour as commonly recognized by good employees in the trade in the Bangalore District where the work is carried out or as laid down in the HAL Regulations.
- p) “DEVIATION ORDER” means an order given by the Superintending Engineer or Manager(works) or Chief Engineer or Senior Manager(Works) or Chief Manager(Works) or Engineer-in-charge which become necessary to effect an alteration, addition or deduction or deletion, which does medically affect the scope or nature of the contract.
- q) “EMERGENCY WORKS” means any urgent measures, which in the opinion of the Engineer-in-charge become necessary during the progress of the work to obviate any risk or accident or for security.
- r) “PROVISIONAL SUM” means a lump sum included by HAL in the tender documents and represents the estimated value of work for which details are not available at the time of inviting the tender.
- s) “PROVISIONAL ITEMS” means for which approximate quantities have been included in the tender documents.
- t) ”ACCEPTING OFFICER” means the Additional General Manager, HAL CO or any other officer nominated by the Director(Personnel), HAL Corporate Office, Bangalore.
- u) “ENGINEER-IN-CHARGE, “SUPERINTENDING ENGINEER OR MANAGER(WORKS) OR CHIEF ENGINEER OR SENIOR MANAGER(WORKS) OR CHIEF MANAGER(WORKS) means the Engineer-in-Charge, Superintending Engineer or Manager(Works), Chief Engineer or Senior Manager(Works) or Chief Manager(Works) of HAL Corporate Office, Bangalore.

**CHAPTER – II****SCOPE OF THE CONTRACT**

2. a) The contractor shall carryout and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the Engineer-in-charge. The Engineer-in-charge may use his absolute discretion and from time to time issue further drawings depending on the progress and necessity, and written instructions, detail directions and explanations which are hereafter collectively referred to as “Engineers” instructions in regard to:-

i) The variation or modification of the design, quality or quantity of the works or the addition or omission or substitution of any work.

ii) Any discrepancy in the drawing or between the schedule of quantities and/drawings and/ specification.

Omissions there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the work comprised therein according the Drawing and specifications or from any of his obligations under the contract the insertion of the name of any firm or supplier in the tender documents is for the purpose of obtaining a particular class or quality of materials or workmanship but the articles or materials specified may be obtained from any other firm subject to the prior written approval of the Chief Engineer or Chief Manager (works) or Sr. Manager (Works) or Superintending Engineer or Manager (Works), HAL.

In case of discrepancy between Bill of quantities, the specification and or the drawings the chief Engineer or Chief Manager (Works) or Sr. Manager works/ Superintending Engineer or Manager (Works), HAL shall be the sole deciding authority as to which shall prevail and his decision shall be final and conclusive. If neither drawing, nor specifications contain any mention of details of the constructions which in; the opinion of the Chief Engineer or Chief Manager (Works) or Sr. Manager (Works) /Superintending Engineer or Manager (Works) whose decision shall be final and conclusive, reasonable and obviously fairly intended for the satisfactory completion of the work, such details shall be provided by the contractor without any extra cost as if they were specifically mentioned and shall be deed to be included in the contract.

b) For Term contract only.

The contactor will be deemed to have satisfied himself as to the nature of works likely to be ordered upon him, local facilities for the supply of labour and materials and access to the sites and all others matters affecting locations and completion of the work. No extra charges consequent on the misunderstand or otherwise will be allowed.

c) For Term contract only:

The quantum of work that may be assigned on term contract will depend on the exigencies of work subject to the maximum limit as stipulated in the contract. Lower limit as specified and the submission of tender by the tenderer will imply specifically that he will not have any claim whatsoever incase the quantum of work fails below the amount expected by him.

The limit of the deviation mentioned elsewhere in the contract will not apply in case of term contract.

All terms and conditions of the contract except otherwise stated will apply to each work order issued under term contract (separately and individually).

Notwithstanding the provisions made above the ordering of work on term contract will be at the sole discretion of Chief Engineer or Chief Manager (Works) or Sr. Manager (Works)/ Superintending Engineer or Manager (Works), based on the capability and financial resources of the contractor as well as the performance and progress of the contractor in respect of any or all the works entrusted to him in HAL or for any other reasons, whatsoever like urgency of work etc.

## **5. DEVIATIONS AND AMENDMENTS:**

Tenderer shall execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and as detailed in the Appendix 'H' and also carry out such deviation as may be ordered. Deviation order within the 10% of Quoted Amount (Accepted Contract Amount) under deviations are binding on the Contractors.

Ordering of deviation is also subject to the following condition:

- a) Deviations ordered in respect of quantities in individual items shall not exceed (+/-) 50% of the quantity of that individual item.
- b) The value of additions of items of Non Tendered Items not already in the contract shall not exceed 50% of the deviation limit. These items will be called Non Tendered Items and the rates for the same will be approved by HAL. However, the total value of work including deviation and Non- tendered items shall not exceed the prescribed deviation limit of 10%.
- (c) Deviations during the execution beyond the deviation limit shall be approved by HAL and contractor shall execute amendment to contract agreement.

## **6. PRICING OF DEVIATION**

Deviations are to be priced in accordance with the conditions of the contract. Those provide for the following order of precedence for pricing:-

- a) Deviations will be priced at Appendix-H [Bill of Quantities] rates where the item is already included in Appendix-H [Bill of Quantities]
- b) In respect of items not included in Appendix-H but where similar items are found in Appendix-H, at rates derived from the rates directly from Appendix-H items where such a direct derivation is possible. If the Appendix-H rate is an HFR rate derivation will not be done from that rate and the other methods of pricing as detailed below shall be followed.
  - i. Where the above alternatives are not possible, the rate will be taken/ derived from Standard Schedule of rates and increased/ decreased by the Contractor's percentage [Tender Percentage] for pricing of deviations as inserted in the contract. The contractors percentage worked out based on HAL estimate shall be intimated to the contractor when Acceptance / work order is issued.

- ii. Non Tendered Items shall not be derived from Freak Rates. The freak rates of the quoted items shall be intimated after opening of price bid before issue of acceptance letter.
- iii. Where it is not possible to derive the rate from the SSR i.e. the item is not available in SSR, the same will be based on the material cost to the contractor, which will include taxes if any etc., plus a profit of 10%. In this case contractor has to produce satisfactory evidence in the form of cash vouchers as proof of expenditure. The material cost shall be based on cash vouchers and derivation for labour and other factors shall be done to arrive at the total cost. In such cases contractor shall submit thorough rate analysis of the item based on sound engineering practice using CPWD / MES co-efficients for men and material. However, reasonableness of the rates shall be certified by Engineer-in-charge and binding on the contractor.

7. **TIME:**

Time is the essence of the contract and the same is specified in the contract documents. As soon as possible after the contract is let out or any substantial work order is placed and before the work under it is begun the Sr.Manager (Works)/Manager (Works) or Engineer-in-charge and the contractor shall agree to a time and progress chart. The same is to be prepared and submitted by the contractor for acceptance of the Engineer-in-charge. The same is to be prepared and submitted by the contractor for acceptance of the Engineer-in-charge. The same is to be prepared in direct relation to the time stated in the contract documents or the work order for the completion of the individual items thereof and/or the contract or rates as a whole. It shall indicate the forecast of the dates for commencement and completion of any various trade process or sequences of the work and shall be amended as may be required by agreement between the Manager (Works) or Engineer-in-charge and the contractor within the limitation of the time imposed in the contract documents, or order.

In the absence of any specific time and chart, the contractor shall ensure and maintain uninterrupted progress of the work so that entire work shall be completed within the time imposed in the contract documents or order and that the proportion of the work completed up to any time in relation to the entire work to be done under the contractor or order shall not be less than the proportion that the time lapsed bears the total time of completion provided in the contract documents or order. The contractor shall suspend the execution of the work on any part or parts thereof wherever called upon in writing by Engineer-in-charge to do so, and shall not resume work thereon until so directed in writing by the Engineer-in-charge. The contractor will be allowed an extension of time for completion not less than the period of suspension, but no other claim in this respect for compensation or otherwise whatsoever, will be admitted. Time may be extended to allow for alteration of work made by the deviation orders.

8. **Stores and Materials:**

a. The contractor shall at his own expenses, supply all stores and materials required for the contract. All stores and materials to be supplied by the contractor shall be of best kind as described in the specifications and the contractor shall, if required by the Engineer-in-charge, furnish him proof to his satisfaction that such store and materials conform to the I.S. specifications. The contractor shall, at his own expense and without delay supply samples of stores and materials proposed to be used in the execution of work for the approval of the Engineer-in-charge.

b. All stores and materials for the work are to be deposited, and stored in suitable manner by the contractor only in places to be indicated by the Engineer-in-charge.

c. HAL officers connected with the contract shall have the power at any time to inspect and examine any stores or materials intended to be used in the work whether on the site or any factory premises or workshop of other place where such stores or materials are being fabricated or manufactured, or at any place where the same are lying and the contractor shall give necessary facilitation for such inspection and examination.

d. The engineer-in-charge shall be entitled to have tests made of any store or materials supplied by contractor who shall provide at his own expenses all facilities which the Engineer-in-charge or an independent expert is employed to conduct any such tests, his charges shall be borne by the contractor.

e. i) Should the Manager (Works)/ Sr. Manager (Works) consider at any time during the construction or reconstruction are of unsound or of a quality inferior to the contracted for or otherwise not in accordance with the contract or defective (in respect whereof the decision of the Manager (Works) / Sr. Manager (Works) shall be final and conclusive), the contractor shall on demand in writing from the Manager (Works)/ Sr. Manager specifying the stores or materials complained of notwithstanding that the same may have been inadvertently passed, certified; and paid for, forthwith remove the stores or materials so specified and paid for or forthwith remove the stores or materials so specified and provide other proper and suitable stores or materials at his own expense, to the entire satisfaction of the Engineer-in-charge may replace with others such stores or materials complained of at the risk and expense of the contractor. The liability of the contractor under this condition shall not extend beyond the maintenance period except as regards stores or materials which the Manager (Works) / Sr. Manager (Works) shall have previously given notice of to the contractor to replace.

ii) Notwithstanding anything contained either in the hypothecation deeds executed under this contract or in any where in this contract, all stores, materials, equipments, etc. whatsoever, whether hypothecated or not which are brought to the site become and remain the property of HAL and the contractor shall not have any right to remove the same from the site. However after completion of the work in all respects,; the Manager (Works) / Sr. Manager (Works) may at their absolute discretion permit; the contractor to remove and take back any of the materials stores equipment, the decision of Manager (Works) / Sr. Manager(Works) shall be final conclusive and binding on the contractor.

f. All HAL stores and materials issued to the contractor for incorporation or fixing in the work and which , taking ;due allowance for reasonable wear and tear/or waste, have not on completion of the work been so incorporated or fixed shall be returned by the contractor at his own expense to the place of issue failing which the cost of such items as assessed by the Engineer-in-charge whose decision shall be final and binding on the contractor, shall be recovered from the contractor in any manner as deemed fit by the Engineer-in-charge.

g. If in the opinion of the Engineer-in-charge (which shall be final and conclusive) any stores supplied by HAL to the contractor have, either during currency of the work or after completion of the work, while it is under the custody of the contractor become damaged to such an extent that they cannot be usefully utilized, either; in the same work or in other works, the Engineer-in-charge shall not accept the stores in the event of his so rejecting, the contractor shall be charged for the said stores; at a rate fixed by the Engineer-in-charge on the basis of damage caused to the materials, whose decision in this regard shall be final and binding on the contractor. The contractor shall not be entitled to any claim whatsoever on this account.

h. The Manager (Works)/ Sr. Manager (Works) or the Engineer-in-charge shall have full powers to acquire and removal from the premises of all materials which in their/ his opinion are not in accordance within the specifications and in case of default, the above officers are at full liberty to employ other persons to remove the same without being answerable or accountable for any loss or damages that may happen or arise to such materials. The above officers shall also have full powers to acquire other proper materials to be substituted thereof and in case of default the above officers may cause the same to be supplied and all costs, which may attribute to such removal and substitution are to be borne by the contractor.

i. The contractor shall treat all materials obtained during dismantling of a structure excavation of the site as HAL's property and such materials shall be disposed of the best advantage of HAL according to the instructions in wiring issued by the Engineer-in-charge.

9. **TOOLS PLANT AND EQUIPMENT:**

The contractor shall at his own expenses supply all tools, plants and equipments etc., required for the work under this contract. All tools, plant and equipment, etc. brought to the site by the contractor shall become the property of HAL and the contractor shall have no right to remove and such Tools and plant from the site without prior written permission of the Engineer-in-charge and upon giving such, written permission the contractor shall forthwith remove such Tools and plants from the site and thereafter the ownership of such removed Tools and plants shall rest in and become the property of the contractor. However, such permission by the Engineer-in-charge shall only be given on satisfactory completion of work in all respects or upon termination of the contract otherwise for the reasons of no default on the part of the contractor.

10. **HIRE CHARGES:**

In case the contractor is provided by HAL any tools, plant, equipment, Materials, etc. on payment of hire charges as decided by the Engineer-in-charge, the contractor shall play the same or such charges which shall be recovered from the contractor from any of his bills as deemed fit. In case of loss, damage etc. HAL shall recover the cost of such damages/lost; items from the contractor in the same manner.

11. **TEMPORARY WORKSHOPS, STORES ETC., :**

The contractor shall, during the progress of the work provide, erect and maintain at his own expense all necessary temporary workshops, stores offices; etc required for the proper and efficient execution of the work and the planning billing; and execution of these buildings, shall at all times keep them tidy and in a clean and sanitary condition to the entire satisfaction of the Engineer-in-charge. On completion of the work or after the contract is terminated/cancelled/determined for whatsoever reasons it may be all such temporary buildings shall be cleared away by the contractor at his own expense and the site restored and left; in a clean; and tidy condition to the; entire satisfaction of the Engineer-in-charge if the contractor fails to do so within 10 days from the date of completion of the work or determination as the case may be, HAL shall clear all such building deemed fit by it without any further notice to the contractor and expenses incurred by HAL in such clearance shall be borne by the contractor and also HAL shall not be responsible for damage/loss of any materials lying in such nor HAL is liable to account for the same, No final bill with be cleared and paid unless such buildings are removed / cleared and a certificate to that effect duly counter signed by the Engineer-in-charge is submitted along with the final bill.



12. **A) ROYALTIES :**

It shall be the responsibility of the contractor to pay all royalties whatsoever whether/arising out of the deeds and; actions on the parts of the contractor either on HAL's property or otherwise to the authorities concerned. In case HAL is required to pay such royalties due to the failure on the part of the contractor in paying the same, HAL shall recover the same from the contractor in a manner as deemed fit by it.

B) **TAXES ROYALTIES, DUTIES ETC.**

Notwithstanding any thing contained anywhere in; any of the documents under this contract, unless otherwise specifically agreed to HAL, CO, Bangalore, the contract rate/rates as per this contract, shall be deemed to be inclusive of all taxes, royalties and duties etc., whatsoever, and the contractor shall not be entitled to any reimbursement thereof.

13. **NOTICES AND FEES:**

The contractor shall give all notices required by any statutory provision or by the regulations and/ or bye-laws of any local authority and/or of any public service, company or any Government affected by the work or with whose systems the same are or will be connected. The contractor shall pay and indemnify HAL against any fee and charges demandable by law under such Acts. Regulations and/or bye-laws in respect of the work and shall make and supply all drawings required in connection with any such notices at his own cost.

14. **ORDERS UNDER THE CONTRACT:**

All orders, notices, etc. to be given under the contract shall be in writing and if sent by registered post to the contractor to any of the addresses given by the contractor or to the last known address of the contractor, shall be deemed to have been served on him. The contractor shall carry out without delay all orders given to him.

15. **ADMISSION TO SITE:**

The contractor shall not enter or take possession of the site (other than for inspection purposes) unless permitted to do so by the Engineer-in-charge. The portions of the site to be occupied by the contract will on no account to allow to be extended for his operations beyond these areas.

The contractor may provide if necessary or required, at the site at his cost temporary access there to After completion of the work or after determination of contractor for whatsoever reasons it may be, he shall take out and clear away the access route restoring the area to its original condition failing; which HAL shall take action of such taking out clearing away and the expenses incurred by HAL shall be borne by the contractor. Also HAL shall not be responsible nor is it liable to account for any materials/property of the contractor in such an event., the Engineer-in-charge shall have right to order execution of other works (Whether or not connected with the work in; the contract) on the site contemporaneously with the execution of the original work and the contractor shall give reasonable facilities for this purpose.

HAL reserves the right of taking over at any time any portion of site which it may require and contractor shall at his own expense clear such portion forthwith. No photographs, diagram etc., of the site or of the work or any part thereof shall be taken, published, or otherwise circulated without the prior written approval of the Engineer-in-charge.

HAL Office is connected with the contract will have the right of entry to the site at all times. The Engineer-in-charge shall have the power to exclude from the site any person whose admission or presence thereto may threat, in his opinions, be undesirable for any reasons whatsoever.

#### 16.1 **CONTRACTORS SUPERVISION:**

The contractor shall either himself supervise the execution of the contract work or shall appoint a COMPETENT Engineer/agent holding a power of attorney to act on his behalf.

If the contractor fails to appoint suitable Engineer/Agent as aforesaid the Senior Manager (Works)/ Manager (Works) shall have full powers to suspend the execution of work and stop payment of any advances/bills that may have become due until such date a suitable Engineer/Agent is appointed and the contractor shall be held responsible for the delay caused to the work and no extension of time on this account shall be given to him. Non-deployment of engineers suffers quality of work and HAL shall impose nominal penalty for non-deployment as under:

Resident Engineer	-	Rs.15,000 per month
Project Manager	-	Rs.10,500 per month
Dy. Project Manager	-	Rs.7,500 per month
Engineers/ Officers	-	Rs.5,000 per month
Others like safety officer etc	-	Rs.5,000 per month

On acceptance of the tender, the Contractor shall furnish within 14 days to Engineer-in-Charge for his approval, site set up with list of Engineers, Supervisors and other staff to be employed by him on full time basis as per with their date of joining. In case the contractor fails to deploy adequate manpower in the opinion of Engineer-in-charge during the execution of work after one month of commencement date, penalty as above shall be recovered from the contractor's bill.

Orders given to the contractor's agent/Engineer shall be considered to have the same force as if they had been given to the contractor himself. The contractor or his agent/engineer shall be in attendance at the site during all working hours and shall supervise the execution of work with such additional assistance in each trade as the Senior Manager (Works)/Manager (Works) may consider necessary.

The contractor or his accredited agent/ Engineer shall attend when required and without making any claim for doing so, either the office of the Engineer-in-charge or the work site to receive instructions.

The Sr. Manager (Works)/Manager (Works) shall have full power and without assigning any reasons to advise the contractor immediately to cease to employ in connection with the contract any agent, servant or employee whose continued employment is in his opinion, undesirable. The contractor shall not be allowed any compensation on this account.

Where the contractor is not a qualified Engineer or even if he is so qualified he cannot in the opinion of the accepting officer given full personal attention to the works, he shall at his own expenses employ an Engineer possessing the following qualifications as his accredited Agent to supervise the works and to receive instructions from the Engineer-in-charge.

#### **TECHNICAL QUALIFICATION OF SUPERVISORY STAFF**

The minimum technical qualifications in the respective field of supervisory staff of each class of contractor/shall be as follows:

- a) For works costing : A Degree or Diploma Holder Civil/Electrical Engineering

- |  |   |
|--|---|
| upto Rs. 10.00 L :                                   | as applicable with min. of 6 months experience in work of the nature contracted for   |
| b) For works costing :<br>Rs.10 to Rs. 20.00 L       | A Degree or Diploma Holder Civil/Electrical Engineering as applicable with min. of 6 months experience in work of the nature contracted for   |
| c) For works costing :<br>Rs.20.00 to Rs.50.00 Lakhs | A Degree Holder in Civil / Electrical Engineering as applicable with at least 2 years practical experience<br>(or )<br>A Diploma Holder in Civil / Electrical Engineering as applicable with at least 4 Years practical experience in work of the nature contracted for |

Note :- For this projects the contractor has to depute a graduate in Civil/ Electrical/ Electronics/ Mechanical/ Audi Video or any other branch of Engineering with required experience as per the requirement at different stages of execution to ensure execution of the work with quality, within the time schedule and in a professional Manner.

The employment of an Engineer shall be made after the approval of the accepting officer who may verify his qualifications and experience by referring to original degree/ diploma/ testimonials etc., which shall be made available to him by the contractor or the individual employed.

## 16.2 SITE RECORDS

a. The Engineer-in-Charge or his representative(s) will maintain a “Site Order Book” for each contract in which he will record all orders on contractor for commencement of work, deviations, stopping of work and the contractor should be required to note these instruction and sign in token thereof. Any objections raised by the contractor should be promptly amended to and resolved without any delay.

b. The contractor should assist Engineer-in-charge or his representative(s) for maintaining the following Site registers/ documents in order to control the quality of works as per relevant specifications and also to ensure passing of materials / works at appropriate stage, as per terms of contract:-

- i. Works Diary for all works
- ii. Works passing Register / Material Passing Register for all works
- iii. Cement Register / Cement Consumption Register for all works
- iv. Steel Register / Steel Consumption Register for all works
- v. Cube Test Register for all works
- vi. Site Order Book for all works
- vii. Hindrance Register for all works
- viii. Material Testing Register for major works
- ix. Sample Approval Register for major works
- x. Dismantled Material / Recovered items such as cut trees, rock / stones from the work site Register for major works
- xi. Concrete design mix Register for major works
- xii. Record of paints, Bitumen, Tar, Anti-termite Chemical etc., Register for all works
- xiii. Inspection Register for major works
- xiv. Bills register [showing bill submission date, bill details and passed amount for running bills / material advance bills] for major works

**17. EXECUTION OF THE WORK:**

The work shall be executed in a workman-like, manner and to the satisfaction, in all respects of the Engineer-in-charge. The contractor is entitled for payment of any work or items of works executed by him only after passing the said executed works by the Engineer-in-charge of HAL and upon entering the measurements of; such passed work in the measurement book and accepted by the contractor. The Engineer-in-charge will communicate or confirm his instructions to the contractor in respect of the execution of the work in a site order book maintained at his office and the contractor shall visit his office daily and shall confirm receipt of such instructions by the signing the relevant entries in the said book. Such entries will rank as orders or notices in writing within the intent and meaning of those conditions. Failure or refusal to sign the said book does not observe the contractor of his responsibilities to give effect to any orders noted therein.

**18. SETTING OUT OF THE WORKS AND PROTECTING AND MAINTAINING SIGNALS AND MARKS:**

The Engineer-in-charge shall supply dimensioned drawings, levels and other information necessary to enable the contractor to set out the work. The contractor shall at his own expense set out accurately according to the drawing and figured dimensions thereon, all the works comprised in the contract and any extra or additions thereto and shall be solely responsible for their being so set out and executed.

All bench marks pages, signals on the surface, alignment, stone, milestones and all similar marks whether put in by HAL authorities for the purpose of checking the contractor's work or in the nature of permanent of the contract, be under the care of the contractor who shall, at his own expense, take all proper and reasonable precautions and care to preserve and maintain them in their true position. In the event of these marks being disturbed or obliterated by accident or due to any other cause whatsoever the same may, if deemed necessary be replaced by the Manager (Works) at the contractor's expense and the cost thereof deducted from any money then or thereafter becoming due to the contractor.

Where requested by the contractor, the level marks center line and change pages corresponding to those show on the drawing will be pointed out to the contractor on the ground by tall bench marks or chainage pegs additional to those shown on the drawing will be set out by HAL authorities.

**19. SITE DRAINAGE:**

All water that may accumulate on the site during the progress of the work, or in trenches and excavations shall be removed to the entire satisfaction of the Engineer-in-charge and at contractor's expense.

**20. EXCAVATIONS, RELICS ETC.**

Material of any kind obtained from excavation on the site shall remain the property of HAL and shall be disposed of as the Engineer-in-charge directs.

**21. FOUNDATIONS:**

The contractor shall not lay any foundations until the excavations for the same have been examined and approved in writing by the Engineer-in-charge.

22. **COVERING OF WORK:**

The contractor shall give reasonable notice in writing to the Engineer-in-charge whenever any work is to be permanently covered up or concealed whether by earth or other means so that it can be finally inspected or measured in necessary. In default of so doing the contractor shall, if required by the Engineer-in-charge, uncover each work at his own expense when directed by the Engineer-in-charge.

23. **INSPECTION OF THE WORK:**

HAL officers concerned with the contract shall have power at any time to inspect and examine any part of the work and; the contractor shall give such facilities as may be required to be given for such inspection and examination.

Should the Engineer-in-charge consider at any time during; the construction or reconstruction or prior to the expiry of the maintenance period that any work has been executed with unsound, Imperfect or unskilled workmen ship, or of a quality inferior to that contracted for or not otherwise in accordance with the contract (in respect whereof the decision of the Engineer-in-charge shall be final and conclusive) the contractor shall on demand in writing from the Engineer-in-charge specifying the fault notwithstanding; that the same may have been inadvertently passed certified and that the same have paid for forthwith rectify or remove and reconstruct the work so specified in whole or in part as the case may be required at his own expense to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period to be specified by the Engineer-in-charge, in; his demand aforesaid the Engineer-in-charge may carryout the work by other means at the risk and expense in all respects of the contractor. However, the liability of the contractor under this condition shall not extend beyond the maintenance period except as regards to workmanship, which shall have previously given notice of to the contractor to rectify.

24. **APPROVAL OF WORK BY STAGES:**

All work consisting of more than one process shall be subject to examination and approval of Engineer-in-charge at each stage thereof and the contractor shall give notice in writing to the Engineer-in-charge when each stage is ready. In default of such notice being received, Engineer-in-charge shall be entitled to disallow the whole work or any part thereof, at any time he may choose and in the event of any dispute the decision of the Engineer-in-charge thereon shall be final and conclusive. If any work is so disallowed, the same shall be redone by the contractor at his cost to the satisfaction of the Engineer-in-charge. Also in the event of failure of the contractor to give notice, he shall uncover any part of the works and/or make openings in or through the same as the Engineer-in-charge may direct for his verification and shall make good such part to the satisfaction of the Engineer-in-charge at the contractor's expense.

25. **RESPONSIBILITY FOR BUILDING**

In the event of any building or part of a building being handed over to the contractor for the execution of works thereto under the provision of the contract he shall give a written receipt for all fixtures, glasses, fittings etc., and he shall be required to make good at his own expenses all damages, losses etc., resulting from any cause whatsoever while in his charge and to deliver up the said buildings or part thereof to the Engineer-in-charge in a clean state complete in every particular on the completion of work.

26. **LABOUR:**

The contractor shall employ labour in sufficient number to maintain the required rate of progress and of the quality required to ensure workmanship of the degree required by the specifications and to the satisfaction of the Engineer-in-charge.

The contractor shall remain liable for the payment of all wages or other moneys to his workpeople or employees under the payment of wages Act, 1936, Employer's Liability Act, 1938, Workmen's compensation Act, 1923, or any other Act or enactment relating there and rules framed there under from time to time. The contractor shall work only on and during the hours or working day, unless he obtains the prior written approval of the Engineer-in-charge to do otherwise. If such approval is given no liability in respect of any excess cost arising there shall be incurred by HAL. He shall not work at night or on a weekly holiday (as declared previously by Engineer-in-charge).

27. **CONSERVANCY:**

The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-charge to effect a proper disposal of night soil and other conservancy work in respect of the contractor's workpeople or his employees on the site.

The contractor will bear the cost of any charges levied by the local authorities for the execution of such work on his behalf.

28. **NUISANCE:**

The contractor shall not at any time do, cause or permit any nuisance on the site or do anything which may cause unnecessary disturbance or inconvenience to owners, tenants or occupants or properties near the site and to the public generally and shall secure the efficient protection of all streams and waterways against pollution.

29 **WATER & ELECTRICITY**

a. **ELECTRICITY:**

Electricity shall be provided only for use in office & area lighting at work site limiting to a maximum of 5 KW. This however doesn't include electricity for labour / staff hutment / colony. No electricity shall be provided for running of works equipment like welding machines, grinder, winches etc

In case the successful tenderer requires electrical supply for purpose of lighting only, the energy provided for lighting shall be charged as per prevailing BESCOM tariff rates at the time based on actual utilization. The supply shall have to be tapped off by the Contractor from the tap off point indicated to him by the Manager / Deputy Manager at his own cost. The Contractor shall have to fix a meter, at his own cost. In case the meter goes out of order, the assessment of electric or energy consumption as made by HAL's Engineers shall be binding on the Contractor.

The supply shall not be given unless the temporary electric installation is certified as safe by the Engineers of electrical section. However no claim for extension of work shall be entertained on account of non- availability of power by HAL, the Contractor thus shall have his own back-up arrangement for such circumstances.

b. **WATER:**

Contractor should make their own arrangements for supply of water. Water if available only will be supplied by the Company and the Contractor shall be charged for the quantity of water consumed by him at Rs.22/- per 1000 litres. The Contractor shall make his own arrangements to tap and store water from the point indicated by the water supply section. The Contractor should also provide a meter. In case the meter is not provided or the meter goes out of order, the assessment of water consumption will be based on Rs.20/- per thousand rupees value of work done priced only in respect of such items where the consumption of water is involved. Meter charges if fixed by the Department will be Rs.10/- per month. Alternatively In case the contractor draws the water from HAL supply main or taps, tube wells etc. 2.5% of the cost of those items of the contract which consume water for its execution shall be charged and recovered from the contractor.

**30. RESPONSIBILITY OF CONTRACTOR AGAINST RISKS:**

During currency of the contract it shall be the responsibility of the contractor to safeguard all materials(tools, plant, equipment etc., either issued by HAL or brought by the contractor, against all losses, damages thefts shortages, fire or any reasons whatsoever and HAL shall not be responsible for losses, damages etc., as aforesaid. The contractor shall solely be responsible for protecting and securing such property.

**31. DAMAGES AND LOSSES TO THE PRIVATE PROPERTY AND INJURY TO THE WORKMEN:**

a) The contractor shall at his own expenses reinstate and make good to the satisfaction of the Manager(Works)/Senior Manager(Works) and pay compensation for any injury, loss or damages occasioned to any property or rights whatsoever(including the property and rights of HAL or agents, servants and employees of HAL) which in any way arising out or in any way in connection with the execution or proposed execution of the contract work shall be responsible to bear and pay all Compensations whatever which are payable to his workmen either under the Workmen's compensation Act or under any labour enactments. The contractor shall indemnify HAL against all claims enforceable against its servants or employees or which would be enforceable in respect of such injury (including injury resulting in death), loss or damages to any person, property, whatsoever, including all claims which may arise under workmen's compensation Act or under any of the labour enactments. In case HAL is liable to pay or payable any compensation, as aforesaid, due to the failure all such amounts paid or paying the same, HAL reserves the right to recover all such amounts paid or payable by HAL from the contractor.

b) The contractor has to carry out the work in accordance with the general safety instructions given to him from time to time besides he shall strictly conform to the various safety measures required to be observed under va

Provide all safety appliances et, to his workers and ensure that his works duly and strictly comply with all such requirements. The contractor shall in all respects be responsible for safety of the works employed by him.

The following are the instructions on safety code to be followed by the contractor during execution of the work.

i) Suitable scaffold shall be provided for workmen for all work that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used for carrying materials as well suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than ¼ to 1(1/4 horizontal and vertical.)

ii) Scaffolding or staging more than 3.25 meters above the ground or floor, swing or suspended from an overhead support or: erected with stationary support, shall have a guard rail properly attached, bottled braced and otherwise secured at least 1 metre high above the floor or platform of such scaffolding or staging and extending along the entire length of the delivery of materials such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

iii) Working platform, gangways and stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangway or stairway is more than 3.25 metres above ground level, it shall be closely boarded and have adequate width and be suitable fenced, as a described in (ii) above.2

iv) Every opening in floor of a building or in a working platform shall be provided with suitable means so prevent fall of persons, or materials by providing suitable fencing or railing with aluminum height of 1 metre.

v) Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable singer ladder shall be over 9 metres in length width between side rails in a rung ladder shall in no case be less than 30 cm, for ladder up to and including 3 mtrs in length . Uniform step spacing shall not exceed 30 cm. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defense of every suit action or other proceedings to any such person or which may, with the consent of the contractor, be paid to compromise any by such person.

vi) Excavation and trenching: All trenches, 1.5 mtrs or more in depth shall at all times be supplied with at least one ladder for each 20 mtrs in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1 metr above of the ground, sides of a trench which in 1.6 mtr or more in depth shall be back to give suitable slope, or securely held by bracings to ensure that no Danger of sides collapsing. Excavated material shall not be placed within 1.5 metres of edge of trench or half of depth or trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstances shall undermining or undercutting be done.

vii) Demolition: Before any demolition work is commenced and also during the process of the work:

a) All roads and open are as adjacent to the work site shall either be closed or suitably protected.

b) No electric cable or apparatus, which is liable to be a source of danger over a cable or apparatus used by operator, shall remain electrically charged.

c) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion, or flooding, roof or other part of a building shall be so overloaded with debris or materials as render it unsafe.

viii) All necessary personal safety equipment as considered adequate by the Engineer-in-charge shall be available for use of persons employed on –the site and maintained in a condition suitable for immediate use, and the contractor shall take adequate steps to ensure proper use of equipment by those concerned.



Workers employed on mixing asphaltic materials cement and lime mortar/ concrete shall be provided with protective footwear and protective goggles.

Those engaged in handling any material which is injurious to the eyes shall be provided with protective goggles.

Those engaged in welding work shall be provided with welder's protective eye-shields.

Stone breakers shall be provided with protective goggles and protective clothing and sealed at sufficiently safe intervals.

When workers are employed in sewers and manholes, the contractor shall ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manhole so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.

The contractor shall not employ men below the age of 18 and women on the work of painting with products containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken:

No paint containing lead or lead products shall be used except in the form of paste or ready made paint.

Suitable face masks shall be supplied for use, by workers when paint is applied in the form of spray or on a surface having lead paint dry rubbed and scrapped.

Coveralls face masks shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

ix) When work is done near any place where there is risk of life, injury etc., Equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

x) Use of hoisting machines and tackle including their attachments, anchorage and supports. Shall conform to the following:

These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept in good repair and in good working.

Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age 21 years shall be in charge of any hoisting machine including any scaffold which give signals to operator.

In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No

part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

In case of a departmental machine, safe working load shall be notified by the Engineer-in-charge. As regards contractor's machine to the contractor. Shall notify safe working load of each machine to the Engineer-in-charge whenever he brings it to site of work and get it verified by the Engineer-in-charge.

xi) Motors gearing transmission electric wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards: hoisting appliance shall be provided adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations. Which are already energized, insulating mats, working appeared such as gloves, sleeves and boots, as may be necessary, shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

xii) All scaffold, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.

xiii) These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible for ensuring compliance with the Safety Code shall be named therein by the contractor.

xiv) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to scrutiny.

xv) Notwithstanding the above conditions (b) (i) to xiv) the contractor is not exempted from the operation of any other Act or rule in force.

### **32. COMPLETION:**

The works shall be completed to the entire satisfaction of the Engineer-in-charge and in accordance with the contractor's forecast of Time and Progress chart where operative and all unused store and materials tools, plant, equipment temporary buildings and other things shall be removed and the site of work cleared of rubbish and all waste materials and delivered up clean and tidy to the satisfaction of the Engineer-in-charge at the contractor's expense on or before the scheduled date of completion.

HAL shall have power to take over from the contractor from time to time such sections of the work as have been completed to the satisfaction of the Engineer-in-charge.

The Engineer-in-charge shall certify to the contractor the stage of work at the end of the maintenance period applicable.

### **33. PATENT RIGHTS:**

The contractor shall fully indemnify HAL or the Agent, servants or employee of HAL against any action, claim or proceeding relating to infringement or the use of any patent or design or any alleged patent or design rights, and shall pay royalties which may be payable of article or part thereof included in the contract. In the event of any claims being made or action brought against.

HAL or any agent, or servant or employee of HAL in respect of any of the matters aforesaid, the contractor shall immediately be notified thereof for taking necessary action provided that payment of indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the HAL in writing but the contractor shall pay any royalties payable in respect of any such use.

**34. ASSIGNMENT OR TRANSFER OF CONTRSCT:**

a) The contractor shall not, without the prior written approval of the accepting officer, assign or transfer the contract or any part thereof or any share, or interest therein to any other person. No sum of money which may become payable under contract shall be payable to any person other than the contractor unless the prior written approval of the Accepting officer to the Assignment or transfer is given.

**SUB-COBTTRACT:**

b) The contractor shall not sublet any portion of the contract without the prior written approval of the accepting officer.

**35. COMPLIANCE TO REGULATION AND BYE-LAWS:**

The contractor shall conform to the provisions of any statute relating to the work and regulations and bye-laws of any local authority and of any water/ organizations. He shall before making any variation from the drawings or the pacifications that may be necessitated for such connections, give the manager/sir, manager, specifying the variation proposed to be made and the reactions thereof and shall not carryout any such variation until he has received instructions from the Engineer-in-charge in respect thereof. The contractor shall be bound to give all notice required by statute regulations or bye-laws as afford-aid and to pay all fees and taxes payable to any authority in respect in respect thereof.

**36. LAWS GOVERNING ERNING THE CONTRACT:**

This contract shall be governed by the Indian Laws for the time being in force and as modified from time to time.

**37. EXTENSION OF TIME:**

a. Time is the essence of the contract and the contractor shall be required to complete the work in all respects within the time stipulated in the contractor's quotation, depends upon the time allowed. However, if in the opinion of Engineer-in-charge the work is delayed by reasons of

- i) Abnormally bad weather, or
- ii) By reason of serious loss or damage by fire, or
- iii) By reason of civil commotion, local combination of workmen, strike or lockout affecting any of the employed on the work, or
- iv) By delay on the part of the agency or tradesmen engaged by HAL in executing the work not forming part of this contract, or
- v) By reason of any other cause which in the absolute discretion of the Engineer-in-charge is beyond the contractor's control, then in any such case the Accepting Officer on the recommendations of the Engineer-in-charge, may make fair and reasonable extension of time in the completion dates of the individual items of work or the contract as a whole, and such extension which will be communicated to the contractor by the Engineer-in-charge in writing

shall be final and binding on the contractor. No claim whatsoever in this respects either for compensation or otherwise shall be admissible.

b. In case there is delay in the issue of materials by HAL, the Accepting officer on the recommendations of the Engineer-in-charge may consider reasonable extension of time for completion of work or the individual items of work as the case may be. No claim whatever in this respect other for compensation or otherwise shall be admissible.

c. Upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer-in-charge

d. But shall nevertheless use constantly, his best endeavor to prevent or make good the, delay and shall do all that may reasonable be required to the satisfaction of the Engineer-in-charge.

**38. SUBMISSION OF AGREEMENTS, BANK GUARANTEES, HYPOTHECATION DEEDS ETC:**

Any agreements, bank guarantees, and hypothecation deeds required to be executed under this contract shall be made at the cost of the contractor with proper stamp duty as per the prevailing rules.

**39. ENCASHMENT OF BANK GUARANTEE:**

HAL shall have full rights whatsoever to encash any bank guarantee executed under this contract at any time during the validity of the guarantee and the contractor shall have no right or claim whatsoever in the encashment of the bank guarantee amount by HAL and any disputes/claims whatsoever in this regard shall only be settled by means by HAL and any disputes/claims whatsoever in this contract and the decision of HAL as to what amount is due to HAL from the said bank against the guarantee and as to contractor has committed breach of contract or not, shall be final and binding on the guarantor-bank and the contractor shall have no right to interfere with the same except to agitate/claims/dispute the same before the arbitration and the bank shall have full rights in terms of the guarantee to make immediate payments against the bank guarantee to HAL without the contractors consent and without referring the matter to the contractor.

**40. JURISDICTION:**

Notwithstanding anything contained elsewhere in this contract, quotations of the contractor or in any other document whatsoever, for the purpose of jurisdiction, the courts at Bangalore shall only have jurisdiction to try matter or disputes arising out of this contract.

**41. ARBITRATION:**

a. 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 mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs drawings to the specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to execute, the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Managing Director / General Manager of HAL, Bangalore and if the Managing Director / General Manager is unable or unwilling to act, to the sole arbitration of some other persons appointed by the Managing Director / General Manager willing to act as such Arbitrator. The Arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, such Managing Director / General

Manager 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 shall be entitled to proceed with the reference from the stage at which it was left by his predecessor

b. Subject as aforesaid the provision of the Arbitration and Conciliation Act, 1996, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

c. The Sole Arbitrator shall pass a considered and reasoned award on all claims made within 6 (six) months of appointment of the Sole Arbitrator. This time period may be extended by the mutual consent of the Parties, but however shall not extend beyond an additional period of 3 (three) months.

d. The work under the contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings, subject to the final outcome of the arbitration proceedings.

e. The venue of arbitration shall be in Bangalore City alone and the Courts in Bangalore City alone shall have jurisdiction in this regard.

f. Both Parties shall bear the costs of the arbitration equally or as ordered by the Sole Arbitrator.

g. The award of the arbitrator shall be final, conclusive and binding on both the parties to the contract.

#### 42. **ARBITRATION IN CASE OF PUBLIC ENTERPRISES**

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of public Enterprises as per the rules and regulations of the Permanent Machinery for Arbitration established for that purpose. The Arbitration and Conciliation Act, 1996 shall not be applicable to Arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the disputes, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the law Secretary, whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

### CHAPTER: III

#### 43. **COMPENSATION FOR DELAY IN COMPLETION OF WORKS:**

If the contractor fails to complete the work and clear the site on or before the extended date/period of completion the contractor shall, without prejudice to any other right or remedy of the company on account of such breach, pay agreed compensation calculated as stipulated below.

Sl. No.	Completion period as originally stipulated	Compensation	Maximum
a.	For works up to Six months	1 % per week on contract sum	10%
b.	For works beyond Six months up to Twenty Four Months	½ % per week on contract sum	7.5%
c.	For works above Twenty four Months	¼ % per week on contract sum	5%

The amount of compensation may be adjusted or set off against any sum payable to the contractor under this or any contract with HAL.

#### 44. **CANCELATION OF CONTRACT FOR CORRPUT PRACTICES:**

The accepting office, whose decision shall be final and conclusive shall without prejudicing to any other right or remedy, which shall have

If the contractor shall:

- Offer or give agree to give to any person in HAL service any gift or consideration of any kind as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act in relation to the obtaining or execution of this or any other contract for HAL service or
- Enter into a contract with HAL in connection with which commission has been paid or agreed to be paid by his or with his knowledge unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to the Accepting officer.
- Obtain a contract with HAL as are sulting of ring tendering or by non-bonafied methods of competitive tendering without first disclosing the fact in writing to the Accepting officer.
- Misrepresent any fact while tendering for any work or create conditions favourable for acceptance of his tender.

#### 45. **CANCELLATION PF CONTRACT FOR INSOLVANCY ASSIGMENT, TRANSFER,OR SUBLETTING CONTRACT:**

The Accepting officer may without prejudice to any other or remedy which shall have accrued or shall accrue there after to HAL, shall cancel the contract in any of the following cases:

- Being an individual, or if a firm, any partner thereof shall at any time be adjudged bankrupt or have a receiving order or order for administration of his estate made against him or shall take any proceeding for liquidation of compensation under any Bankruptcy 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 propose to do so, or if any application be made

under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditor of.

b) Being a company, shall pass a resolution or the court shall make an order for the liquidation on of its affairs, or a receiver or manager in behalf of the debenture holders shall be appointed or circumstance shall arise which the court or debenture holders to appoint a receiver or manager or.

c) Assigns, transfers, sublets or attempts to assign, transfer or sublet any portion of the work without the prior written approval of the Accepting Officer. Whenever the Accepting officer exercises his authority to cancel the contract under this condition, he may complete the work by any means at the contractor's risk and expense provided always that in the event of cost of completion (as certified by the Engineer-in-charge which is final and conclusive) being less than the contract cost, the advantage shall accrue to the HAL and that if the cost of completion exceeds the moneys due to the contractor shall either pay the excess amount ordered by the Engineer-in-charge or the same shall be recovered from the contractor by other means.

In case the HAL completes the work under the provisions of this conditions, the cost of such completion to be taken into account in determining the excess cost to be charged to the contractor under this condition shall consist of the cost of materials purchased and labour provided by the HAL with an addition of such percentage to cover superintendence and establishment charges, as decided by the Engineer-in-charge whose decision shall be final and conclusive.

45. **CANCELLATION OF CONTRACT FOR DEFAULT OF THE CONTRACTOR:**

a) If the contractor makes default in commencing the work within a reasonable time or within the time specified or having taken over the site does not commence his work within a reasonable time. Or if the contractor, in the opinion of the Engineer-in-charge during the currency of the contract, makes default in proceeding with the work, or programs of work is slow, or in the opinion of the Engineer-in-charge the workman is poor, or if the contractor fails to comply with any of the terms and condition of the contract, or fails to complete the work in full or part and clears the site on or before the date of completion, or fails to achieve the progress as set out under the contract or fails to carry out the orders issued by the Engineer-in-charge or Deputies or abandons the contract or otherwise commits any breach of contract, the Accepting officer or Engineer-in-charge or any other officer nominated by the Accepting officer shall cancel the contract and get the balance work executed either by HAL, itself, or by another contract or through any other agency as deemed fit. In such an event the contractor shall be liable to make good and compensate all losses expenses incurred or to be incurred, by the HAL.

b) In case HAL completes the works by itself, the cost of such taken into account in determining the excess cost to be charged shall consist of cost of all materials and labour provided by HAL of such percentage to cover superintendence and establishment charges as may be decided by the Engineer-in-charge of HAL, whose decision shall be final, conclusive, and binding on the contractor.

c) In the event of completion of the work either by HAL or by another contractor or through any other agency, if the cost of completion works out less than the cost under this contract, advantage shall accrue to the HAL.

46. **CANCELLATION OF CONTRACT FOR DEATH ETC:**

Without prejudice to any of the rights or remedies under this contract, if the contractor dies or attains legal disability, the Accepting Officer shall have the option of canceling the contract without any compensation to the contractor or to any of his legal heirs/successors and without any prior notice.

47. **SPECIAL POWER OF CANCELLATION OF CONTRACT/ FORECLOSURE OF CONTRACT:**

If at any time after acceptance of the tender HAL shall, for any reasons whatsoever, not require the whole or any part of the work to be carried out, the Engineer-in-charge shall give notice in writing of the fact to the contractor and upon receipt of such notice the contractor shall stop the execution of such work as indicated in the otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the for closing of the work. He shall be paid at contract rates for the full amount of the work executed including such additional work (eg. Clearing of site etc) as may be rendered necessary by the said fore closing.

48. **COMMUNICATION OF ORDERS:**

Any communication under this contract on any matter whatsoever under the signatures of Engineer-in-charge shall be deemed to have been issued under the approval of the Accepting officer.

49. **RECORDING OF FINAL MEASUREMENTS AFTER CANCELLATION OF WORK:**

In the event of cancellation of the work under the terms of the contract, the contractor shall, within 10 days from the date of receipt of such cancellation order, come forward and complete measurements and recording thereof the unmeasured work and also recording of list of materials unused, jointly with the Engineer-in-charge or his authorized representative, failing which, the Engineer-in-charge shall complete the aforesaid work in the absence of the contractor in the presence of any person unconnected with the work, which shall be final, conclusive and binding on the contractor.



**VALUATION OF PAYMENT**

**50. RECORDING OF MEASUREMENTS:**

All items having a financial value be entered in the HAL Measurement Book so that a complete record is obtained of all work performed under the contract, MES/SSR mode of measurement shall be followed for the purpose of taking measurements.

Work which fails to be measured in details shall be measured physically, without reference to any local custom that may obtain excepting where it may otherwise be directed in the contract documents. The measurements shall be taken jointly by any person or persons duly authorized on the part of the HAL and by the contractor.

The Engineer-in-charge shall give reasonable notice in writing to the contractor of appointment for measurement. The contractor shall, without extra charge, provide assistance with appliances and other thing necessary for measurement.

The contractor shall bear all the costs of measurement of his work.

Measurements shall be entered in the HAL. Measurement Book and signed and dated by both parties each day on the completion of measurement.

If as a result of such objection, if becomes necessary to re-measure the work wholly or in part, the expense of such measurements shall be borne by the party requiring the measurement to be taken.

If the contractor or contractor's representative fails to attend when required the Engineer-in-charge shall have power to proceed by himself to the measurements, and in that case these measurements shall be deemed to have been accepted by the contractors as final.

It shall be the sole responsibility of contractor to prepare and submit all or any of his bills to the Engineer-in-charge against the works executed by him under this contract.

The contractor shall once in every month submit to the Engineer-in-charge of his claim in detail for the work done by him upto and including the previous months which are not covered by his contract agreement in any of the following respect.

- a) Deviation from the items and specifications provided in the contract documents.
- b) Extra items/new items of work.
- c) Quantities In excess of those provided in the contract schedule.
- d) Items In respect of which raters have not been settled.

He should in addition furnish a clear certificate to the effect that claims submitted by him as aforesaid cover all his claims and that he shall raise further claims in respect of the work done up to and including the period under report.

**51. RUNNING BILLS:**

The contractor will be entitled for payments of the work done once in every month only. However, if the contract value is more than Rs. 20.00 lacs, running bills will be considered for payment once in every fortnight. Running bills will be paid upto 100% of the value of the work

completed to the entire satisfaction of the Engineer-in-charge, after making the following deductions, if any:

- a) All previous running account payments.
- b) Cost of entire stores issued by HAL where incorporated in the work or not.
- c) Full value of the advances paid against the materials where incorporated in the work or not.
- d) Mobilisation advance.
- e) Hire charges, for electricity & water supplied by HAL.
- f) All statutory deductions.
- g) Any other dues recoverable by HAL. From the contractor under the present contract or any other contract,

All running bills shall carry a certificate issued by the Engineer-in-charge contract the value of work done supported by the measurements and quantities of work done and the rates adopted for valuation of the work or percentage progress of work. All running bills exceeding Rs.50.000/- should be counter signed by the Manager (Works) /Senior Manager (Works) who satisfy himself in regard to the valuation of work.

## **52. PAYMENT OF MATERIAL ADVANCE:**

75% of the cost of any materials which, in the opinion of the Engineer-in-charge are reasonably required in accordance with the contract and have been brought to site for incorporation in the works and are safeguarded against any loss due to any cause whatsoever, to the satisfaction of the Engineer-in-charge. The material shall be insured against loss due to theft, damage, and other means from IRDA approved Insurance Company. However, if CAR policy covers the same, no need for a separate insurance for advance against material. Insurance coverage for the above will be for the duration till the same are commissioned/ incorporated in the work.

Payment in respect of materials collected at site will be authorized only by the Engineer-in-charge certifying that: -

- a) Only non-perishable materials are considered for advance.
- b) The stores have physically been brought to site and have not been incorporated in the work.
- c) The stores are required for the work.
- d) They have been stored satisfactorily and are not likely to deteriorate in stock; and they have been valued at rates not higher than current market rates.
- e) For the purpose of evaluating the cost of the materials the contractor's bills towards the purchase of the materials will be compared with the derived rate of those materials from the item rates under the contract and 75% of the cost as per the bills or such derived rates whichever is less, will be considered for payment of materials advance.
- f) Purchase / Cash vouchers / Proforma of invoices / Test Certificates [wherever required as decided by EIC] are to be furnished by the contractor and the cost/value of material checked with respect to accepted rate of contract to ensure reasonable payment and required quality.
- g) In case the test certificates are not produced by the contractor, laboratory test from a NABL approved laboratory will be carried out by the department for all major value material of contract to ensure the quality as per contract specifications/ standards before accepting the item. The necessary test charges will be borne by contractor.
- h) Advance payment under this clause shall be fully adjusted while admitting the next RAR payment. However, fresh advance against materials at site shall be considered against each RAR

for the un-utilized materials available at site based on the certification by the Engineer-in-charge.

NOTE: The Contractor shall be responsible for the safe custody of the materials and shall not remove them from the site without the prior written approval of the Engineer-in-charge.

53. **PAYMENT OF PRE-FINAL BILL:**

Where the contractor is not in a prepare and submit the final bill and the Engineer-in-charge is satisfied that submission of final bill is delayed beyond one month after completion of the work the contractor may be permitted to submit a pre-final bill subject to the following conditions:

- a) Extension of time is duly approved.
- b) The appropriate competent authority approves all the Dos/HER items.
- c) All the items of work done including the non-tendered items are reflected in the bill and the bill is signed without any protest or reservations.
- d) In case the contractor does not submit his final –within one month from the date of receipt of pre-final bill. The amount so paid against pre-final bill, shall be recovered from any of the amounts payable to the contractor under this contract or any other contract, as deemed fit.
- e) For all purposes, the pre-final bill will be treated as running account bill and all the requirements as laid down for passing the running bills, shall be completed with.

54. **FINAL BILLS:**

On completion of the work in all respects to the entire satisfaction of the Engineer-in-charge, which shall be certified by the Engineer-in-charge in writing and on completion of recording of measurements of the entire work, which also shall be signed by the contractor and the Engineer-in-charge a final bill shall be prepared and submitted by the contractor in the prescribed Performa within one month. To enable the contractor to do so, the Engineer-in-charge will furnish to him necessary final statements indicating the total materials issued to the contractor, total cost thereof, cost recovered and the balance cost to be recovered total mobilization advances paid, such advances with interest recovered, and to be recovered, total hire charges, electricity and water charges recovered already and yet to be recovered and any other recoveries to be effected in the final bill.

If the contractor fails to submit the final bill within one month from the date of completion of the entire work or within one month from the date of payment of pre-final bill whichever is latter, the Engineer-in-charge may with prior written permission of the Manager (works) /Senior Manager (Works) without any further intimation to the contractor prepare the final bill of contractor, Which shall be final and binding on the contractor and thereafter the contractor shall have no right whatsoever to dispute the said final bill.

The contractor shall consider and include all his claims whatsoever in the final bill which shall construe and mean that the contractor shall not have any other claims whatsoever against HAL under this contract other than those indicated in the final bill. For this purpose the contractor shall enclose to the final bill a No demand Certificate in Format-4 enclosed, stating that he has no any other claims whatsoever against the company under this contract the claims indicated in the final bill and defect liability amount if any.

On receipt of the final bill duly signed by the contractor with all the aforesaid enclosures, the same will be scrutinized by the Engineer-in-charge to see whether the claims are in order. He will also attach to the final bill certified statement of total charges issued to contractor cost recovered and to be recovered, total material advance paid recovered and yet to be recovered, mobilization advance paid, amount, received with interest and yet to be recovered total hire charges, and water charges, already recovered and yet to be recovered any other charges recoverable for the stores issued by HAL to the contractor where there has been any over issue/under, issue of stores to the contractor, particulars of unused materials returned by the contractor to HAL stores and other particulars as may be necessary.

The Engineer-in-charge will also enclose a certificate that entire work under the contract has been completed according to the specification or below specifications and will also recommend what recoveries are to be made in case the work is below specifications.

Where the contractor has not fully utilized the stores issued for incorporation in the work or where the quantities used are less than theoretically required either using work or where the quantities used are less than theoretically required either using HAL's materials or the contractor's materials resulting in the work being below specifications, the Engineer-in-charge will personally examine the case and if satisfied to that effect amount of the payment already made under the contract.

The Engineer-in-charge should enclose to the final bill completion certificate in the format-5.

The final bill duly signed by the Engineer-in-charge along with all the aforesaid requirements, enclosures and all measurement books will be submitted to the Engineer-in-charge for his scrutiny and approval before forwarding to the amounts for payment.

No claims of the contractor whatsoever shall be entertained after payment of the final bill.

55. **MODE OF PAYMENT TO THE CONTRACTOR:**

All payments to be made to the contractor under this contract shall be by a crossed cheque marked "A/c payee only" on Bangalore.

56. **RECOVERIES FROM THE CONTRACTOR:**

Notwithstanding contained anywhere in this contract, the HAL shall be entitled to recover, deduct, retain, withhold, appropriate, adjust or otherwise to do anything as deemed fit, from any amounts payable to the contractor or which may any time become payable thereafter, under this contract or any other contracts entered into by HAL with the contractor, towards the HAL's dues payable by the contractor or in the opinion of HAL to be payable by the contractor, where the matters are in sub-judice or not, under this contract or any other contracts entered into by HAL with the contractor.

57. **TECHNICAL EXAMINATION AND OVER-PAYMENTS/UNDER-PAYMENTS:**

a) HAL reserves the right to carry out post-payment audit and technical examination of the running/final bill including all supporting vouchers, abstracts, etc. The HAL further reserves the right enforce recovery of any over-payments when be detected. Notwithstanding the fact that the amount of the running bill/final bill may be included by one of the parties as an item of dispute before an arbitrator appointed and notwithstanding the fact the amount of the running bill – award.

b) If as a result of such audit and technical examination any over-payments are discovered in respect of any work done by the contractor or alleged to have been done by him under to contract it shall be recovered by HAL from the contractor by HAL subject to the other terms and conditions of the contract.

**58. REFUND OF SECURITY DEPOSIT:**

Notwithstanding anything contained elsewhere in this contract, the contractor, whose tender has been accepted, shall deposit the balance security deposit on or before the date indicated in the acceptance letter of the contract. The security deposit will be adjusted refunded ad follows:

- After completion of the work in all respects. 50 percent of the security deposit shall be refunded without any interest.
- However, security deposits, against the works of routine maintenance services like white/colour washing painting, etc.,. Where no maintenance period is prescribed. will be refunded in full without interest along with the final bill.

**59. REFUND OF DEFECT LIABILITY DEPOSIT:**

The defect liability deposit will be refunded after successful completion of the maintenance period of one year or the maintenance period as prescribed for works like water proofing treatment, special type of structures/services. As the case may be without interest on a certificate issued by the Engineer-in-charge.

**LABOUR REGULATIONS**

**60. COMPLIANCE OF CONTRACT LABOUR AND HAL REGULATION:**

The contractor shall comply with all the provisions under the contract labor (regulations and abolition) Act, 1970, its rules made there under, HAL labor regulations and all other statutory obligations under all the labor enactments and rules.

**61. CONTRACT LABOUR REGULATIONS:**

**61.1. LICENSING OF CONTRACTORS:**

Every contractor who employ or employed during the preceding 12 months twenty or more workmen should obtain a license from the competent authority. Viz. Asst. Labour commissioner Bangalore, The validity of license is for 12 months. The contractor should take steps to get the license renewed if the work is not completed within the period of the validity of the license.

**61.2. MAINTENANCE OF REGISTERS OF WORKMEN EMPLOYED BY THE CONTRACTOR:**

The contractor shall maintain a register of workmen employed by him in the form-IX framed under the contract Labors (R & A) Act. & its rules.

**61.3 EMPLOYMENT CARD:**

The contractor shall issue an employment card to each workmen employed by him in /form-X under the said Act and Rules.

**61.4 SERVICE CERTIFICATE:**

The contractor shall issue a service certificate to every workman while terminating the services of any workman in Form-XI under the said Act and Rules.

**61.5 MAINTENANCE OF MUSTER ROLLS WAGE REGISTERS, DEDUCTION REGISTER ETC:**

The contractor shall maintain the following registers and records under the said Act and Rules.

-Muster roll	Form-XII
-Register of wages	Form-XIII
-Register of deductions	Form-XVI
-Register of overtime	Form-XIX
-Register of fines	Form-XVII
-Register of advances	Form-XVIII

The contractors are required to maintain necessary registers and records as may be required as employer under the payment of wage Act 1936 and the rules there under or the minimum wages Act 1948 or the rules made there under:

A combined Muster roll cum wages in form XIV shall be maintained by the contractor where the wage period is a fortnight or less. Where the wages period is one week or more the contractor shall issue wages slips in Form-XV to the workers at least a day prior to the disbursement of wage. Signature or thumb impression of the workers on the wage register or wage cum muster roll as may be shall be obtained and the entire therein shall be authenticated by the initials of the authorized representative of the principal employer

**61.6 RETURNS:**

Every contractor shall send a half yearly return in form XX (induplicate) to the Licensing officer within 30 days form the close of the half year.

**61.7. WELFARE FACILITIES TO THE CONTRACTORS LABOUR:**

The contractor is wholesome drinking water.

- a) Sufficient supply of wholesome drinking water.
- b) Sufficient number of urinals and latrines,
- c) Washing facilities,
- d) First-aid facilities,
- e) Rest rooms where the contract labour is required to half at night,
- f) Canteen where the number of contract labour employed by the contractor is 100 or more.
- g) Creches in case 20 or more female workers are employed by the contractor.

**61.8. WAGES:**

- a) The contractor shall fix the wage period and the wage period so fixed shall not exceed one month.
- b) The wages shall be paid within three days from the end of wages period where the wages period in one week or fortnight and within 7 days when the contractor labour employed is less than 1000 and within 10 days of the expiry of the wages period where the strength of the contract labour is 1000 or more.
- c) Where the services of a contract labour are terminated by or on behalf of the contractor, wage due to him shall be paid before the expiry of two days from the termination of services.
- d) All payments or wages shall be paid to the worker direct or to his authorized representative in current coin currency and during the working time and on a date notified in advance to the contract labour and the principal employer. In case the work is completed before the expiry of the wages period final payment shall be made within 48 hours of the last working day.
- e) Wages shall be paid in the presence of the authorized represntative of the principal employer.
- f) The rate of wages payable to the workmen shall not be sell than the rate prescribed under the minimum wages Act where applicable and where the rate have been fixed by agreement, not less than the rates so fixed.

**61.9. CERTIFIACATE TO BE GIVEN BY THE TENDERS:**

That the tenderer

- a) Is a registered contractor under the contract labour (Regulation & Abolition) Act 1971 having licence No.....
- b) Has engaged contract labour numbering.....during the last twelve months.
- c) Is engaging contract labour numbering.....in the other works of the tenderer.
- d) Is not a licence holder under the contract labour (Regulation & Abolition) Act.
- e) Has no other work in which he engaged contract labour.  
(Please strike out the clause that are not applicable)

ii. The tenderer hereby undertakes to abide by all the provisions of the contract labour (Regulation & Abolition). Act 1971 and will comply with the all the requirement failing with the company can comly with the recovered from the amount payable to the such costs including expenses will be recovered from the amount payable to the tender under this contract or under any other contract that may be pending with the company without prejudice to any other right/remedy available to the company.

62. **EMPLOYEES P.F AND FAMILY PENSION ACT:**

a) The provision of the EDF Act and scheme framed there under are applicable to the contract labour who have put in the qualifying period of service I.e. 60 days (which need not be continuous) within a period of three months. They are also entitled to Employee Family Pension scheme. Every contractor shall within seven days of the close of every month submit to the principal employee a statement showing the recoveries of contribution in respect of employee of through him and shall also furnish to him such. Information as the principal employer in required to furnish under the provisions of the scheme to the commissioner.

b) The contractor shall recover the contribution payable by eligible contract labour and shall pay to the principal employer the amount of member's contribution so deducted together with amount of contribution (contractor's contribution) and also administrative charges.

63. **FACTORIES ACT:**

a) The provision of the Factories Act are applicable to the contract labour to the extent they are not in conflict with provisions of the contract labour (Regulation & Abolition) Act where no such provisions exit in the latter statue. The provisions of Factories Act that the applicable to contract labour are given below:

b) **ANNUAL LEAVE WITH WAGES:**

Every worker who has put in 240 days work in a calendar year is entitled to leave with wages during the subsequent calendar year.

a) One day for every twenty days of work in the case of an adult.

b) One day for every fifteen days of work in case of child. He shall also be entitled to wages during the leave period.

c) **WEEKLY HOURS:**

No adult worker shall be allowed to work more than 48 hours in a week,

d) The first day of a week shall be holiday unless a worker has or will have a holiday on one of the three days before or after the weekly holiday.

e) **COMPENSATORY HOLIDAY:**

If a worker is deprived of a weekly holiday, he shall be allowed compensatory holiday within the month or within the two months immediately following that month during with he has been deprived of the weekly holiday.

f) **DAILY HOURS:**

No adult worker shall be allowed to work more than 9 hours in a day. In the case of child who has completed his 14 years the daily working hours should not exceed 4 1/2 hours.

g) **INTERVALS FOR REST:**

The period of work shall be so fixed that a worker will have rest period of 1/2 hours after a period of 5 hours continuous work.

h) **SPREAD OVER:**

The total period of work of an adult worker including rest period shall not exceed 10 1/2 hours in a day.

i) **EXTRA WAGES FOR OVERTIME:**

Where a worker works for more than 9 hours in a day or more than 48 hours in a week, he shall be paid in respect of the overtime work twice him ordinary into of wages.

i) **RESTRICTION ON EMPLOYMENT OF YOUNG PERSON:**

A child who has completed his 14<sup>th</sup> year or an adolescent (a person who has completed his 15<sup>th</sup> year of age but has not completed his 18<sup>th</sup> year) shall not be allowed to work unless the contractor is in custody of a fitness certificate to work granted by the certifying surgeon and the child/adolescent carries while he is at work a token giving reference to such certificate.



64. **MATERNITY BENEEFIT ACT:**

The provisions of his Act are applicable to female contract labour. The benefits to be provided by the contractor under this act are;

- a) Maternity leave-  
(6 weeks immediately following the day of her delivery or her miscarriage and 6 weeks immediately preceding her delivery or miscarriage).
- b) Payment of maternity benefit-Wage during maternity leave period.
- c) Leave for illeness arising out of pregnancy.
- d) Nursing breaks etc.

65. **WORKMEN'S COMPLENSATION ACT:**

Contract labour whose employment is not of casual and employed for the purpose of the business or trade of the contractor are entitled to the benefits under the Act.

66. **INSPECTION OF REGISTERS:**

The contractor shall allow inspection of the wage book, the wage slips and the register of fines and deductions to any of his workmen or to his agent at a convenient time and place after the due notice.

67. **HAL LABOUR REGULATIONS:**

In these regulations, unless otherwise expressed or indicated, the following words and expressions shall have the meaning hereby assigned to them respectively, that is to say.

- a) Labour means workers workers employed by contractor directly or indirectly through a sub-contract.
- b) Fair wages means wages where for time or piece work notified at the time of inviting tenders for the work and where such wages have not been so notified, the wages prescribed by the Chief Manager works/Sr. Manager works.
- c) Contactor's shall include every person where a sub-contractor or headman or agent, employing labour on the work taken on contract.
- d) Wages shall have the name meaning an defined in the payment of wages Act and includes time and piece-rate wages.

68. **FAIR WAGES:**

- a) The contractors shall pay not lose the 'Fair Wage' to Laborers engaged by him on work.  
"Fair wages" means where for time or piece work notified at the time of inviting tenders for work and where such wages have not been so notified, the wages prescribed by the Manager (Works)/Senior Manager (Works) for the stations at which the work is done.
- b) The contractor shall, not with-standing the provision of any contract to the contrary, cause to be paid a 'Fair Wages' to laborers indirectly engaged on the work, including any labours engaged by his subcontractor in connection with said work, as if the labourers had been directly employed by him.
- c) In respect of all laboures directly or indirectly in the work for the performance of the contractor;s part of this Agreement the contractor shall comply with or cause to be complied with Labour Regulations in regard to payment of wages, wage period, deduction from wages, recovery, of wages not paid and deductions unauthorizedly made. Maintenance of wage book, wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all othet maters of like nature.
- d) The Senior Manager (Works) shall the right 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 or workers by a reason of non-fulfillment of the conditions of the contract for the benefit

of the workers non-payments 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 Regulations.

e) Vis-à-vis the HAL the contractor shall be primarily liable to all payments to be made under and the observance of the Regulation aforesaid without prejudice to his right to claim indemnity from his sub-contractors.

f) The regulations aforesaid shall be deemed to be apart of this contract and my branch thereof shall be deemed to be branch of this contract.

**69. DISPLAY OF NOTICES REGARDING WAGES:**

The contractor shall:

a) before he commences his work on the contract, display and correctly maintain in a clean and legible condition in conspicuous places on the work notices in English and in a Local Indian Language spoken by the majority of the workers, giving the rates of wages which have been certified by the Sr.Manager (works) as fair wages and the hours of work for which wages are earned ,and

b) Send a copy of such notices to the certifying officer.

**70. POWER OF HAL OFFICERS:**

The Labour welfare officer of HAL or any other persons authorized by the HAL on their behalf shall have power to make enquiry with a view to ascertaining and enforcing due and proper observance of the fair wages clauses and the provisions of those Regulations. He shall investigate into any complaint regarding the default made by the contractor/sub-contractor in regard to such provisions.

**71. ENTRY AND EXIT OF CONTRACTOR'S LABOUR:**

The contractor shall during the progress of the work, provide, erect and maintain at his own expense approved standards and scales, all necessary temporary living, bazaar and sanitary accommodation required for his work people on the site in connection with the execution of work and also arrange for supply of wholesome drinking water for his work-people.

Temporary living, bazaar and sanitary accommodation required for his work people on the site in connection with the execution of work and also arrange for supply of wholesome drinking water for his work-people.

The planning, siting, lay-out and erection of these temporary buildings shall be approved by Engineer-in-charge and the whole of such temporary accommodation shall at all times during the progress of the work be kept tidy and in at the clean and sanitary condition to the satisfaction of the Engineer-in-charge and at the Contractors expense. The contractor shall conform generally to the sanitary requirements of the Local Medical and Health Authorities and at all times adopt such precautions as may be necessary to prevent soil pollution of the site.

On completion of the work all such temporary building shall be cleared, away all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed-off and the whole of site clean and tidy to entire satisfaction of the Engineer-in-charge at the contractor's expense. No final bill shall be paid unless all such temporary constructions are removed and the site is cleared.

**73. ANTI-MALRIA PRECATION:**

The contractor shall at his own expense, conform to all ant malaria instructions gives to him by the Engineer-in-charge including the filling up of borrow pits.

74. If this agreements is framed and printed both in Hindi & English, in case of any controversy the English version of this agreement to be discussed and relied, it will be final and valid in all such cases.

## **SPECIAL CONDITIONS OF CONTRACT**

1. All the rates quoted and accepted under this contract shall be for the finished items of work in-site inclusive of all cost of materials, labour, all leads, lifts, work in any storey, at all heights and other incidents charges, ancillary charges etc.
2. Before quoting his rates for the work, the tenderer shall inspect the site of the work and the quarries from which various materials are to be brought and should satisfy himself about the nature and scope of the work to be executed and the quantity and the quality of materials procurable from these quarries. In every case, the materials shall conform to the relevant MES or ISS and shall be got approved by the Engineer-in-charge before they are used on the work. The Senior Manager (Works)/ Manager (Works) Hindustan Aeronautics Limited will not, however, after acceptance of a contract rate, pay any extra charges for any other reason; in case the contractor is found later on to have misjudged the nature and scope of the work as also the availability of materials.
3. The tender is not allowed to alter the specifications of the unit of work noted in the Bill of Quantities. For the sake of uniformity in comparison of tenders, the tenderers should not add any conditions of their own. Tenders not complying with these conditions are liable to be rejected.
4. The rates quoted and accepted shall include the cost of materials at site and cost of cement and steel as specified in the bill of quantities and the contractor shall have to procure the same unload and other wise agreed to.
5. All works under this contract shall be executed and followed in accordance with the MES and ISS in respect in respect of quality of materials, workmanship, mode of measurements etc.
6. The contractor shall have to make his own arrangement at his cost for the water required for the construction and any other purpose. In case the contractor draws the water from HAL supply main or taps, tubewells etc. 2.5% of the cost of those items of the contract which consume water for its execution shall be charged and recovered from the contractor. Alternatively, if the contractor desires filter water connection he may make an application to the Engineer-in-charge who will show a convenient point of water supply main from where the contractor has to install a ferrule connection and lay necessary pipe lines and fix a tested water meter (to be certified by Engineer-in-charge) at the cost of the contractor, and the water charges shall be on meter reading basis at Rs60 Per 1000Ltr. which shall be recovered from the contractor.
7. If the contractor desires electricity power connection he shall at own cost install electric panel board containing main switch, energy meter, earthing as may be prescribed under the Indian Elec. Act and Rules, which should be certified by licensed supervisor and electrical inspector. The contractor may tap the power supply from the main switch to his work site. The Elec. Consumption charges shall be recovered from the contractor at the rates fixed from time to time.
8. However, the HAL is not responsible for any delay in the execution of work due to failure of water/Elec. Supply for any reason whatsoever and no compensation is payable in this regard to the contractor.
9. I.S. 1200-1964 will generally be followed while recording and checking measurements. The contractors when in doubt are required to obtain prior information regarding widths and depths of excavations in earth work involved, any extra excavation under the foundations will be required to be filled with cement concrete similar to that specified for that foundation filling in each case without any claims on the extra concrete so required.
10. Secrecy:- The contractor, shall take all steps necessary to ensure that all persons employed on any work in connection with the contract have noticed that the Indian official Secrets Act 1923 (XIX 1923) applies to them and will continue so to apply even after the execution of such works under the contract.

11. All documents/drawings copies thereof and therefrom furnished to the contractor shall be returned to the Senior Manager (Works) on the completion of the work or the earlier determination of the contract.

12. All materials will have to be got approved in writing from Engineer-in-charge before their use at site.

13. Appendix-G enclosed in the item of stores and rates on which they will be issued if available.

14. The contractors shall not engage in any of their works under HAL any person who is below age of 18 years. Also women workers will not be allowed to be engaged on any work under HAL between 6-00PM to 6-00AM inside the Factory premises.

a. "Notwithstanding anything contained herein, the Company reserves the right to cancel the contract at any time without notice and without assigning any reason".

b. **INSURANCE IN RESPECT OF DAMAGE TO PERSONS AND PROPERTY:**

The contractor shall be responsible for injury to person, animal or things and for all structural and decorative items, damage to property which may arise from the operation or neglect of himself or of any nominated sub-contractor or any employees of either, whether sub injury or damage arises from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. This clause shall be held inter-alia, any damage to building whether immediately adjacent or otherwise, and any damage to roads, streets footpaths, as well as all damages caused to the buildings and work forming the subject of this contract by rain wind or other inclemency of all and any expenses arising from any such injury damage to persons or property as aforesaid and also in respect of any claim made in respect of any awards of compensation or damage consequent upon such claim.

The contractor shall all damage or every, sort mentioned in the clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

The contractor shall indemnify the HAL against all claims which may be made against the HAL by any member of the public or other third party in respect of any thing which may arise in respect of the works or in consequences thereof and shall at his own expense arrange to effect and maintain, until the virtual completion of the contract, which may arise in respect to affect and maintain, until the virtual completion of the contract, which an approved office a policy of Insurance in the joint names from time to time during the currency of this contract. The contractor shall also similarly indemnify the HAL against all claims which may be made upon the HAL under the workman's compensation Act or any other statutes in force during the currency of this contract and shall at his own expenses effect and maintain, until the virtual completion of the contract the contractor against such risk and deposit such policy or policies with the HAL from time to time during the currency of the contract.

**ii) FIRE INSURANCE:**

17. The contractor shall within fourteen days from date of commencement of the work. Insure the works at his cost and keep them insured until virtual completion of the works, against loss or damage by fire in the joint names of a HAL and the contractor, for the full amount of the contract and for any property of the HAL only and the surveyor's fee for assessing the claim and in connection with his service generally in the reinstatement and shall not cover any property of the contractor insuring as provided above, HAL on their behalf, may so insure the works and may deduct the premium from any money due or which may become due to contractor without prejudice to other rights of HAL in respect of such default. In case it becomes necessary to

suspend the works the contractor shall, as soon as the claim under the policy is settled, or the work reinstated by the Insurance office, should they elect to do so proceed with all due diligence with the occurred and in all respects under the same conditions of contract. The contractor in case of rebuilding or reinstatement after fire, shall be intimated to such extension of time for completion as the Engineer-in-charge deems fit.

18. The amount so due as aforesaid shall be the total value of the works duty extended and of the contract materials and goods delivered upon the site for two in the works upto and including a date not more than seven days prior to the date of the said certificate less the amount to be retained by HAL and less any installments previously, properly and not prematurely brought upon the site and then only if properly stored and/or protected against weather.

iii) Forth the works of structural steel fabrications and such similar works on extra weight on account of welding shall be taken into account for the purpose of payment. Also no extra weight on account of rolling tolerances of the steel members shall be taken into account for making payments. The weight of the structural steel will be arrived for payment only by taking linear measurements of respective structural steel actually placed in the fabrications work exclusive of all wastages and cuttings, by applying weight factor of that particular structural member as per I, S, Code.

iv) **PRICE ESCALATION:**

The rates accepted under this contract are conclusive and final and no price escalation in the contract rates on rates on account of increase in the rates of material, labors cost or on any reasons whatsoever, shall be entertained, either during the contract period or during the extended period of the contract, which may be due to any reasons whatsoever except the following:-

### **PRICE ESCALATION & ADJUSTMENT**

**a. PRICE ESCALATION CLAUSE [For Original works only > `100.00 Lakh] :**

(i) This clause shall be applied for the works costing more than `100.00 Lakhs with completion period of 6 months and above. However, the index [ $W_1$ ,  $F_1$ ,  $L_1$ ] shall be frozen as on the scheduled date of completion as mentioned in work order whatsoever reason attributed for extension of time. Escalation is payable beyond schedule date of completion in extended period (if without penalty) with frozen index. If the index decreases during the extended period, same shall be considered for final settlement.

(ii) The index [ $W_1$ ,  $F_1$ ,  $L_1$ ] shall be determined based on the Average indices of all commodities for  $W_1$ , average indices for Fuel & Power for  $F_1$  (Base =100 for the year 2004-05) for the period under reckoning as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce [<http://eaindustry.nic.in>] and  $L_1$  for labour all India Consumer Price Index Numbers for Unskilled adult mazdoor [base 2001=100 ] Issued by Ministry of Labour & Employment, Office of the Chief Labour Commissioner(C) New Delhi for CONSTRUCTION OR MAINTENANCE OF ROADS OR RUNWAYS OR IN BUILDING OPERATIONS etc. by annually is available on website <http://labour.nic.in> under [Minimum Wages in Mines and establishment falling under Govt. of India](#) (Refer annexure “ZA” ) for the period of the Bill under consideration viz from date of pervious bill [date of commencement in case of first [bill] to date of current bills [date of virtual completion in case of final bill or any earlier cutoff date as fixed). In case the bill is prepared between first and fifteenth day of a particular month, the index

of previous month is to be considered as  $W_1, F_1, L_1$ . However if the bill is prepared on 16<sup>th</sup> day of the month or thereafter, the index for that particular month shall be reckoned.

(iii) Escalation is to be linked with the mile stones of progress of work value wise. Important mile stones based on value of work to be brought out by the agency after award of work and it shall be agreed by HAL before commencement of work with the approval of Divisional head. However, value of work shall be assessed on preparation of RAR by Engineer-in-charge including payable material advance. Escalation will be paid subject to completion of mile stone within schedule time. However if the agency makes up for the lost time and achieves the next milestone within the stipulated time of that milestone, then escalation shall be paid for the entire period up to that milestone.

**i. Reimbursement / Refund on variation in price of Construction Materials :**

$$V_m = \{(60/100) (R_n - R_{n-1}) + M_n - M_{n-1}\} \{(W_1 - W_0)/W_0\}$$

where

$V_m$  = Variation in price of materials [i.e. increase or decrease in the amount in rupees to be reimbursed or recovered]

$R_n$  = Gross value of work done [Excluding advance on materials at site upto the period under reckoning]

$R_{n-1}$  = Gross value of work done [Excluding advance on materials at site considered in the bill prior to the period under reckoning]

$W_1$  = Average all India Wholesale Price Index for all commodities (Base =100), 2004-05 for the period under reckoning as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce [<http://eaindustry.nic.in>]. for the period of the Bill under consideration.

$W_0$  = All India Wholesale Price Index for all commodities on the last date for submission of tender [including extended date if any]

$M_{n-1}$  = Advance against materials at site above considered in the bill prior to the period under reckoning.

The adjustment on material is worked out on the basis that material component in the building construction work is 60% of the value of work done, the rest being labour and profit. But in the initial stages of construction work, it might so happen that the cost of materials used exceeds 60% which is taken as an average and therefore adjustment gets worked out on negative side even though the economic index might have gone up. In such cases, the negative adjustment shall also have to be made in the bill.

$M_n$  = Advance against materials at site [other than covered under above) considered in the bill under reckoning]

ii. **Reimbursement / Refund on variation in prices of fuel**

Fuel cost component for the contract as a whole shall be taken KP% of the value of the work executed under the contract. Value of KP is given here below:

$$V_F = \{[1.5 \times (R_n - R_{n-1})] / 100\} \times [(F_1 - F_0) / F_0] \text{ Where}$$

$V_F$  = Variation in prices of fuel to be adjusted

$F_1$  = Whole sale price index for sub group for fuel & power [base 2004-05 = 100] published by economic adviser to Government of India.

$F_0$  = As for  $F_1$  but the index as on the last due date for receipt of tenders

iii. **Reimbursement / Refund on variation in prices of Labour**

$$V_L = \{[20 \times (R_n - R_{n-1})] / 100\} \times [(L_1 - L_0) / L_0]$$

$V_L$  = Variation in price of labour i.e. increase or decreases in the amount in rupees to be reimbursed or recovered

$L_1$  = Average all India Consumer Price Index Numbers for Workers – CPI(IW) [base 2001=100] declared by Labour Bureau, Govt of India for CONSTRUCTION OR MAINTENANCE OF ROADS OR RUNWAYS OR IN BUILDING OPERATIONS etc. for unskilled adult mazdoor available on website <http://labour.nic.in> under [Minimum Wages in Mines and establishment falling under Govt. of India](#)

$L_0$  = All India consumer price index Numbers for Industrial workers [base 2001=100] ruling on the last date of submission of tender.

(if the last date of submission of tender is between 1<sup>st</sup> and 15<sup>th</sup> of any month, then previous month economic index is considered as  $L_0$ . However, if the last date of submission of tender is between 16<sup>th</sup> to end of the month, economic index of the same month is considered as  $L_0$ )

**NOTES:**

- i) The contractor shall within the reasonable time of his becoming aware of any alteration to the payment of wages of labour consequent on fixation of minimum wages under any law, statutory rule or order, give written notice thereof, to the EIC stating that the same is given pursuant to this special condition together with all information relating thereto which he may be in a position to supply.

- i) Irrespective of the variation in minimum wages for any category of labour, for the purpose of adjustment under this special condition, the variation in minimum wages fixed under any law, statutory rule or order for an unskilled adult male mazdoor, if any, shall only form the basis.

**14.2 PRICE ADJUSTMENT CLAUSE [ Rs.20 Lakh to Rs.100 Lakh]:** This clause shall be applied for the works costing more than **Rs. 20 Lakhs** and costing less than **Rs.100.00 Lakhs** with completion period of 6 months and above.

- (i) The Price Variation for the following materials shall only be reimbursed when there is increase beyond 5% over the base price and [WPI] Wholesale Price Index of respective commodities as listed below,

Commodity	Base Price	RBI WSPI
CEMENT	` ----- / MT	<b>All India Whole Sale Price Index for respective commodities on the last date for submission of Tender (including extended date if any)</b>
REINFORCEMENT STEEL	` ----- / MT	
STRUCTURAL STEEL	` ----- / MT	
BITUMEN (any Grade)	` ----- / MT	

**Note:** The base price shall be the basic material rate as per prevailing SSR (+) applicable fluctuation if any (-) 10% contractor's profit element as on the date of issuance of Tender document.

- (ii) The above base prices shall be applicable only to the particular contract and not to be considered for any other purpose whatsoever except for calculating the price variation. The base prices indicated above are inclusive of all the statutory taxes, freight, loading and unloading.

- i. In case of any variation in base price and the average WPI for the period under reckoning of the above commodities exceeds 5% of the base price and WPI, the variation upto + 5% shall be borne by the contractor and the variation over and above 5% only be reimbursed by HAL.

However, the variation above 5% in base price or WPI shall be reimbursed with reference to RBI Wholesale Price Index of the respective commodity or the market price whichever is lower.

- (iv) This reimbursement shall be paid only for the materials actually consumed in the work at site or theoretical consumption required for the work whichever is less.

- (v) No reimbursement on price variation shall be made for the work done after the scheduled date of completion. However, if the extension of time is granted without any LD for the reasons attributable to force majeure or to the company the price variation over and above 5% will be reimbursed based on the base price and WPI of respective commodity prevailed on the scheduled date of completion. In case, the base price / WPI becomes lower during extended period than the base price / WPI at



the scheduled date of completion, the lower will only be considered for reimbursement.

- (vi) The Contactor shall produce necessary documentary proof like bills / cash memo / vouchers in original for the purchase of materials listed above along with PP form in case of works inside the factory premises. It is to be noted that the rate mentioned in the cash memo of the purchased materials [FOR at site of work, HAL] shall be inclusive of statutory taxes, freight etc. The authenticity of the bills / cash memo / vouchers to be confirmed and certified by the Engineer-in-charge before recommending for price reimbursement.

v) **ELECTRICAL WORKS:**

All electrical works under this contract shall be carried out in accordance with the Indian Electricity Act, the Rules made there under and the instructions given from time to time issued by the authorities concerned. The contractor shall hold requisite licenses for the purpose or shall employ persons holding such licenses and the license holder shall certify the work. If any modifications, rectifications, etc. are instructed to be carried out by the Inspecting officer under the said Act and the Rules, the same shall be complied with to the satisfaction such officers at the contractor's cost.

## **GENERAL SPECIFICATION**

1. The specifications shall form the part of the contract and shall be read to in conjunction with other documents forming the contract I.e., Article of Agreement. Tender notices, Instruction to tenderers, General conditions, special Bill of quantities, Schedule of materials to be issued etc.
2. The rates for all items unless specifically stated otherwise in the contract must cover the cost of all materials, labour transportation to site , tools, machinery, plants, pumps, explosive, scaffoldings, staging, shores, props, bamboos, ropes, templates, pegs all other appliances and operation and all taxes, royalties etc.
3. The contractor is required to use all materials those which shall confirm to latest codes and standards published by the Indian standard Institution and all other standards which may be published by them before construction work starts shall govern in respect of design, workmanship, quality of various works and materials and methods of testing. Some of the Indian standards listed below are for strict compliance of the contractor during the execution of the work. In the absence of such standards the decision of the Engineer-in-charge shall be binding on the contractor.

Sl. No.	I.S. No	Subject
1	5-1975	Colors for ready mixed paints and enamels (third revision)
2	44-1969	Specification for ocher for paints (First revision)
3	63-1978	Whiting for paints and putty (Second revision)
4	73-1961	Paving bitumen(revised)
5	75-1973	Linseed oil, raw and refined (Second revision)
6	102-1962	Ready mixed paint, brushing, red lead, non setting, Priming (Revised)
6.a.	103-1962	Ready mixed paint, brushing, non-setting priming (revd)
7	104-1979	Ready mixed paint, brushing, Zinc chrome, priming (second revision)
8	109-1968	Ready mixed paint, brushing, priming, plaster (first rev.)
9	110-1968	Ready mixed paint, brushing, grey filler for enamels for use over primer (first revision)
10	111-1950	Ready mixed paint, brushing, undercoating interior.
11	113-1950	Ready mixed paint, brushing, undercoating exterior.
12	115-1950	Ready mixed paint, brushing, undercoating interior, mat finish
13	117-1964	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (revised)
14	120-1962	Ready mixed paint, brushing, finishing, semi-gloss, for general purposes (revised)
15	121-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (revised)
16	122-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (revised)
17	123-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (revised)
18	124	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (second revision).

19	124(Part-II)-1979	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes (second revision).
20	124(Part-III)-1979	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes
21	126-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes(revised)
22	127-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes(revised)
23	128-1962	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes(revised)
24	129-1950	Ready mixed paint, brushing, finishing exterior, semi-gloss, for general purposes(revised)
25	133-1975	Enamel, interior, undercoating and finishing (second revision).
26	137-1965	Ready mixed paint, brushing, matter egg shell flat, finishing interior(revised)
27	154-1950	Ready mixed paint, brushing, dead black, for use on metals.
28	155-1950	Ready mixed paint, brushing, matt black, for use on wood
29	156-1950	Ready mixed paint, brushing, for use on floors
30	157-1950	Ready mixed paint, brushing, acid and alkali resisting lead free, for general purpose.
31	158-1981	Ready mixed paint, brushing, bituminous, blank lead-free, acid alkai, water and heat resisting for protection against acid fumes (revised)
32	159-1981	Ready mixed paint, brushing, acid resisting for protection against acid fumes (first revision)
33	161-1950	Ready mixed paint, brushing, mat, heat resisting
34	162-1950	Ready mixed paint, brishing, fire resisting, silicate type, for use on wood
35	164-1981	Ready mixed paint, brushing for road marking (first revision)
36	168-1973	Ready mixing paint air drying, Semiglossy.mat for general purpose (Second revision)
37	195-1963	Fire clay mortor for laying fire clay refractory brideses(Second revision)
38	198-1978	Varnish-gold rite first revision
39	204(part-I & II) 1978	Tower bolts (fourth revision)
40	205-1978	Non-ferrous metal butt hinges (third revision)
41	206-1981	Tee and strap hinges (thirs revised)
42	207-1964	Gate and shutter hooks and eyes(revised)
43	208-1979	Door handles (third revision)
44	210-1978	Grey iron castings (third revision)
45	212-1983	Crude coal tar for general use (second revision)
46	212-1961	Cut-back bitumen (revised)
47	218-1983	Creosote and anthracic oil for seas wood preservatives (Second revision)
48	226-1975	Structural steel (Standard quality) (fifth revision)
49	261-1982	Copper sulphate (second revision)
50	269-1976	Ordinary and low heat Portland segment (third revision)
51	277-1985	Clavanised steel sheets(Plain and corrugated) (fourth revision)

52	278-1978	Calvanised steel barbed wire for fencing (third revision)
53	280-1978	Mild steel barbed wire for fencing (third revision)
54	281-1973	Mild steel wire for General engineering purposes (third revision)
55	287-1973	Recommendations for bolts, for use with pad-locks(second revision)
56	290-1961	Recommendations for use with pad-locks (second revision).
57	303-1982	Plywood for general purpose (second revision)
58	334-1982	Glossary of terms relating to bitumen and tar (second revision)
59	335-1972	New insulting oil for transformers and switchgear (third revision)
60	337-1975	Varnish, finishing, interior (first revision)
61	341-1973	Black japan, Type-‘A’, ‘B’ and ‘C’ (first revision)
62	342-1976	Varnish acid resisting (first revision)
63	346-1952	Wood filler, transparent, Light
64	346-1952	Varnish ,Spirit, Clear, Hard
65	347-1975	Varnish, shellac for general purposes (first revision)
66	348-1968	French polish (First revision)
67	349-1981	Lacquer, cellulose, nitrate clear finishing, glossy for metal (First revision)
68	362-1981	Parliament hinges (fourth revision)
69	363-1976	Hasps and staples (third revision)
70	364-1970	Fan-light catch (second revision)
71	371-1979	Ceiling roses (Second revision)
72	375-1963	Marking and arrangement for switch gear, bus bars, main connections and auxiliary wiring (revised)
73	383-1970	Coarse and fine aggregate from natural sources for concrete (second revision)
74	398 (Part-I &II 1976)	Aluminium conductors fro overhead purposes(second revision)
75	401-1982	Code of practices for preservation to timber (third revision)
76	412-1975	Expanded metal steel sheets for general purpose (second revision)
77	419-1967	Expanded metal steel sheets for general purposes (second revision)
78	423-1961	Plastic wood fro joiner’s filler (revision)
79	427-1965	Distemper, Dry, color as required (first revision)
80	428-1969	Distemper, oil emulsion, colour as required (first revision)
81	430-1972	Paint remover, solvent type, flammable (second revision)
82	430-1972	Paint remover, solvent type, flammable (second revision)
83	432 (Part-I) 1982	Mild steel and medium tensile steel bars (third revision)
84	451-1972	Technical supply conditions for wood screws (second revn.)
85	452-1973	Door springs rattail type (second revision)
86	453-1973	Double acting spring hinges(second revision)
87	454-1961	Cut back bitumen Digboi type ( revision)
88	455-1976	Portaland slag cement e (third revision)
89	456-1978	Code of practice for plain and reinforced concrete (third revision)
90	458-1970	Un-reinforced corrugated and second revision)
91	459-1971	Concrete pipe (with and without reinforcement (second revision)
92	416-1959	Methods of test for strength of concrete.
93	524-1983	Varnish, finishing, exterior, synthetic air drying (second revision)
94	525-1968	Varnish, finishing, exterior and general purposes(second revision)

95	553-1973	Gum sprit of turpentine (oil of turpentine) (first revision)
96	613-1984	Copper rods and bar for electrical purposes( revised)
97	640-1956	Ready mixed red oxide paint for hessian
98	651-1980	Salt-glazed stoneware pipes and fittings (fourth revn)
99	651-1980	Salt-glazed stoneware pipes and fittings (fourth revn)
100	653-1980	Sheet linoleum and tiles (second revision)
101	654-1972	Clay roofing tiles,Managalore pattern (second revision)
102	692-1973	Paper insulated lead sheathed cables for electric supply (second revision)
103	694-1977	PVC insulated cables (for working voltage up to and including 1100 volts) (second revision)
104	702-1988	Industrial bitumen (second revision)
105	712-1984	Building limes (third revision)
106	723-1972	Steel countersunk head wire nails (first revision)
107	729-1971	Drawer locks, cupboard locks and box locks (third revision)
108	730-1978	Hook bolts for corrugated sheet roofing (second revision)
109	731-1971	Porcelain insulators for overhead power lines with nominal voltage greater than 1000w volts (second revision)
110	732-1963	Code of practice for electrical wiring installations (system voltage not exceeding 650v) (revised)
111	732 (Parts-I-III) and III-1982	Code of practice for electrical wiring installations (system voltage not exceeding 650v) (revised) Part I definition and General requirement. Part II Design and construction second revision)
112	737-1974	Wrought aluminium and aluminium alloys, sheet and strip for general engineering purposes (second revision).
113	749-1978	Handloom cotton Dungri cloth, grey (first revision).
114	774-1984	Flushing cisterns for water closets and urinals valve less symphonic type (fourth revision)
115	775-1970	Cast iron supports and brackets for wash basin and sinks (second revision)
116	777-1970	Glazed earthen-ware tiles (first revision)
117	781-1984	Cost copper alloy screw bib taps and stop valves for water services (third revision)
119	782-1978	Caulking tread (third revision)
120	809-1970	Rubber flooring materials for general purposes (first revision)
121	814-1974	Covered electrodes for metal are welding of structural steel (fourth revision)
122	816-1974	Code of practice for use of metal arc welding for general construction in mild steel (first revision)
123	818-1968	Code of Practice for safety and health requirements in electric and gas welding and cutting operation (first revision)
124	a)822-1970 b) 823-1964	Code of procedure for inspection of welds Code of procedure for manual are welding of mild steel
125	851-1978	Synthetic resin adhesive for construction work (non-structural) in wood (first revision)
126	852-1969	Animal glue for general wood finishing working purpose (first revision)
127	870-1962	Ready mixed paint brushing finishing egg shell gloss, for interior

		use.
128	871-1956	Ready mixed paint brushing finishing egg shell gloss, for interior use.
129	872-1956	Ready mixed paint brushing finishing egg shell gloss, for interior use.
130	876-1970	Wood poles for overhead power and telecommunication lines (second revision)
131	1019-1974	Rim latches (second revision).
132	1038-1983	Steel doors, windows and ventilators (third revision).
133	1077-1986	Common burnt clay building bricks (fourth revision).
134	1081-1960	Code of practice for fixing and glazing of metal (steel and aluminum) doors, windows and ventilators
135	1120-1975	Coach screws (first revision).
136	1121 Part-I to IV-1974	Methods of test for determination of strength properties of natural building stones (first revision)
137	1124-1974	Methods of test for determination of water absorption apparent specific gravity and porosity of natural building stones (first revision)
138	1139-1966	Hot rolled mild steel, medium tensile steel and yield strength steel deformed bars for concrete reinforcement revised).
139	1148-1982	Hot rolled steel rivet bars (up to 40mm dia) for structural purpose (third revision)
140	1180-1964	Out door type three phase distribution transformers up to and including 100 KVA
141	1180-1967	Ready mixed paint, brushing, oil gloss, genuine zinc oxide for general purposes.
142	1195-1978	Bitumen mastic for flooring (second revision).
143	1199-1959	Method of sampling and analysis of concrete.
144	1230-1979	Cast iron rain water pipes and fitting (second revision)
145	1232-1964	Ready mix paint, brushing, yellow ochre, semigloss
146	1236-1958	Ready mixed paint, brushing, yellow ochre, semigloss for general purpose (revised)
147	1237-1980	Cement concrete flooring tiles (first revision)
148	123 (part-I) 1969	Mild steel tubes (fourth revision)
149	123 (part-II) 1982	Mild steel tubular and other wrought steel pipe fitting (third revision)
149	1254-1975	Specifications for corrugated Aluminium sheets.
150	1255-1983	Code of Practice for Insulation and maintenance of paper insulated cables up to and including 3.3 KV Second revision)
151	1258-1987	Bayonet lamp holders (third revision).
152	1293-1988	Three pin plugs and sockets outlet (second revision)
153	1293-1982	Alumina emulsifiable concentrated (second revision).
154	1322-1982	Bitumen felts for water proofing and damp proofing (third revision)
155	1328 -1982	Veneered decorative plywood (second revision)
156	1341-1981	Steel butt hinges (fourth revision)
157	1344-1981	Calcined clay possolana (second revision)
158	1345-1981	Steel butt hinges (fourth revision)
159	1363-1984 part	Black hexagon bolts, Nuts and lock nuts dia (M5 to M 36) and black

	I to II	hexagon screws (dia M5 to M36) (second revision)
160	1367 -1967	Technical supply conditions fro threaded steel fasteners (first revision)
161	1445-1977	Porcelain Insulators for overhead power lines with nominal voltage up to and Including 1000 Volts (2 <sup>nd</sup> revision)
162	1464-1973	Clay ridge and ceiling tiles (second revision)
163	1489-1976	Portland pozzolana cement (second revision)
164	1504-1974	Bees Wax (second revision)
165	1526-1960	Sizes and shapes fro fire bricks(230 series).
166	1536-1976	Centrifugally cast (spun) iron pressure pipes for water, gas and sewage (first revision)
167	1536-1976	Vertically cast iron pressure pipes for water , gas and sewage (second revision)
168	1538 (part-I to XXIII-1976)	Cast iron fittings for pressure pipes for water, gas and sewage (second revision)
169	1542-1977	Sand for plaster (first revision)
170	1554 (part-I)1976	PVC insulated (Heavy duty) electric cables part-II (for working voltage from 3-3 KV upto and including 11 KV (first revision)
171	1554- (part-II)1981	PVC insulated (Heavy duty ) electric cables partII (for working volage from 3.3 KV upto and including 11 KV (first revision)
172	1566-1982	Hard drawn steel wire fabric for concrete reinforcement (second revision)
173	1568-1970	Wire cloth for general purposes (first revision)
174	1569-1976	Capacitors for use in tubular fluorescent high pressure mercury and low pressure sodium vapour discharge lamp circuits (fist revision)
175	1580-1969	Bituminous compound for water proofing & caulking purposes (first revision)
176	1592-1980	Asbestoses cement pressure pipes (second revision)
177	1596-1977	Polyethylene insulated cables for working voltages up to and including 1100 volts (second revision)
178	1626 (part-I)	Asbestos cement Building pipes fittings (first revision)
179	1623 -(part-II)1981	Asbestos cement gutter and roofing fittings (first revision).
180	1626- (part-III)1981	Asbestos cement gutter and roofing fittings (first revision).
181	1646-1982	Code of practice for fire safety of buildings (general) Electrical Installations.
182	1653-1972	Rigid steel conduits for electrical writing (second revision)
183	1658-1977	Fiber hard –boards (second revision).
184	1659-1979	Black-boards (second revision).
185	1659-1978	Pre-stressed concrete poles for over head power traction and telecommunication lines (first revision).
186	1703-1977	Ball valves (horizontal plug type) including floats for water supply purposes (second revision).
187	1706-1972	Method of determination of resistance to wear by abrasion of natural buildings stones (first revision).
188	1711-1984	Self-closing taps (second revision).
189	1726 (Part-I to	Cast Iron manhole covers and frames (second revision).

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190	1729-1979	Sand cast iron, spigot and socket, soil, waste and ventilating pipes, fittings and accessories (first revision).
191	1777-1978	Industrial luminaries with metal reflectors (first revision).
192	1786-1985	High strength deformed steel bars for concrete reinforcement. (Third revision).
193	1792-1982	Pillar laps for water supply purposes (second revision).
194	1818-1972	Alternating current isolators (disconnections) and earthing switches (First revision).
195	1823-1980	Floor door stoppers (third revision).
196	1834-1984	Sealing compounds, hot applied for joints in concrete.
197	1137-1966	Fan light pivots (first revision).
198	1838-1961	Preformed fillers for expansion joints in concrete, non-extruding and resilient type (Bitumen impregnated fibre).
199	1866-1983	Code of practice for maintenance and supervision of mineral insulating oil in equipments (second revision).
200	1879 (Part-I to X) - 1975	Malleable cast iron pipe fittings (second revision).
201	1886-1967	Code of practice for installation and maintenance of transformer (First revision).
202	1913 (Part-I) 1978	General safety requirements for luminaries Part-I Tubular fluorescent lamps.
203	1944 (Part-I & II)-198	Code of Practice for lighting of Public through fares (second revision).
204	1977-1975	Structural steel (ordinary quality) (second revision).
205	2016-1967	Plain washers (first revision).
206	2026 (Part-I- 1977)	Power transformers general (First revision).
207	2046-1969	Decorative thermosetting synthetic resin bonded laminated sheets (First revision).
208	2068-1980	Structural steel (fusion welding quality) (third revision).
209	2065-1983	Code of practice for water supply in buildings.
210	2086-1982	Carriers and bases used in rewire able type electric fuses up to 650 volts(revised).
211	2098-1964	Asbestos cement building boards
212	2114-1984	Code of practice for laying in terrazzo floor finish.
213	2116-1980	Sand for aluminium and steel cored aluminium conductors for overhead power lines.
214	2121-1962	Fittings for aluminium and steel cored aluminium conductors for overhead pwer lines.
215	2141-1979	Galvanised stay strand (second revision).
216	2149-1970	Luminaries for steel lighting( first revised).
217	2185-1979 Part-I	Concrete masonry units (second revision).
217	2185-1984 Part-II	Concrete masonry units (second revision).



218	2202 (Part-I) 1983	Wooden flush door shutters (solid core type ) Part-I, Plywood face panels (third revision).
218	20202 (Part-II) 1983	Particle Board and lord board half panel (third revision)
219	2209-1976	Mortise locks (vertical type) third revision.
220	2215-19832	Starters for fluorescent lamps (third revision)
221	2268-1988	Code of practice for protection of buildings and allied structures against lightening (first revision).
222	2309-1969	Code of practice for protection of buildings and allied structures against lightening (first revision).
223	2315-1978	Thimbles fro wire ropes (second revision)
224	2326-1987	Automatic flushing cisterns for urinals (second revision)
225	2339-1963	Aluminium paint, for general purposes, in dual containers.
226	2386 (Part-I to VIII)-1963	Method of test for aggregates fro concrete.
227	2412-1975	Tubular fluorescent lamps for general lighting service (Second revision).
228	2418 (Part-I to II)-1982	Code of practice for septic tanks.
229	2486 (Part-II)-1974	Insulator fittings for overhead power lines of 3.3 KV and above (Part-I) general requirements and tests (first revision).
230	2486 (Part-III)-1974	Insulator fittings for overhead power lines of 3.3 KV and above (Part-I) general requirements and tests (first revision).up to 650 volts (revised).
231	2502-1982	Code of practice for bending and fixing of bars for concrete reinforcement.
232	2508-1984	Low density polythene films (second revision).
233	2509-1973	Rigid density polythene films(second revision)
234	2544-1973	Porcelain post insulators for systems with voltage greater than 1000 volts (first revision)
235	2548 (Part-I and II)-1983	Plastic seats corers for water closets etc.
237	2556 (Part-I) 1974	Vitreous sanitary appliances (vitreous china) Part-I General requirements (second revision).
238	2556 (Part-II) 1981	Vitreous sanitary appliances (Vitreous china), Part-III specific requirements of squatting pans (third vision)
240	2556 (Part-IV)	Vitreous sanitary appliances (vitreous china), Part-IV specific requirements f wash basins (second revision)
241	2556 (Part-V) 1979	Vitreous sanitary appliances (Vitreous china) Part-V specific requirements laboratory sinks (second revision)
242	2556 (Part-VI/Sec-I-1979)	Vitreous sanitary appliances (Vitreous China), Part-VI, Specific requirements of urinals sec. I Bowl type (third revision)
243	2556 (Part-VI/Sec-2) 1974	Vitreous sanitary appliances (Vitreous China),Part-VI, Sec-2 half stall urinal (Second revision)
244	2086-1982	Vitreous sanitary appliances (Vitreous China), Part-VI, Sec-3 plan.
245	2556(Part VI/Sec 4) 1974	Vitreous sanitary appliances (Vitreous China) Part-VI, Sec. 4. Partition slabs (second revision)

246	2556 (Part-X) 1974	Vitreous sanitary appliances (Vitreous china ) Part-X, specific requirements of foot rest (second revision)
247	2645 (Part-X) 1974	Integral cement waterproofing compounds (first revision)
248	2667-1976	Fitting for rigid steel conduits for electrical wiring first revision.
249	2675-1983	Enclosed distribution fuse boards and cutouts for voltages not exceeding 1000 volts (second revision)
250	2681-1979	Non-ferrous metal sliding door bolts (Aldrops) for use with padlocks (second revision)
252	2682-1984	Chlordane mollifiable concentrates (first revision).
253	2690 (Part-II) 1975	Burnt clay flat retracing tiles, Part-II hand made (first revision).
254	2691- 1972	Burnt clay facing bricks (first revision).
255	2713 (Part-I to II-1980	Tubular steel poles for overhead power lines (second revision)
256	2720 (Part-VII)- 1980	Methods of test for soils, Part-VII, determination of water content-dry density relation using light compaction (second revision)
257	2721-1979	Galvanized steel wire chain link fences (first revision).
258	2751- 1979	Code of practice for welding of mild steel bars used for reinforced concrete construction (first revision).
259	2911 Parts Sec. IV,Part II Part III etv-1985	Code of practice for design and construction of piles/pile foundation.
260	2932- 1974	Enamel, synthetic, exterior, under-coating and finishing.
261	2933- 19759	Enamel, exterior (a) undercoating and (b) finishing (first revision).
262	2963- 1979	Copper alloys wate fittings for wash basins and sinks (first revision).
263	3016- 1982	Code of practice for precautions and cutting operations (first revision).
264	3034-1981	Code of practice for fire safety of industrial buildings electrical generating and distributing stations (first revision).
265	3043- 1987	Code of practice for earthing.
266	3063- 1972	Single coil rectangular section spring washers for bolts nuts and screws (first revision)
267	3068- 1986	Broken brick (burnt slay aggregate for use in time concrete (second revision)
268	3070 (Part-I) 1985	Lightening arrestors or alternating systems Part-I, Non-liner resister type lightening
269	3070(Part-II) 1966	Lightening arrestor for alternating current systems, Part-II. Expulsion type lightening arrestors.
270	3072- 1975	Code of practice for installation of switch gear (first revision).
271	3006- 1985	Low density polyethylene pipes for potable water supply (second revision)
272	3087- 1985	Wooden particle boards (medium density) for general purposes
273	3097- 1980	Veneered particle boards tanionic type)
274	3106- 1966	Code of practice for installation and maintenance if the (voltage not exceeding 650 volts)
275	3117- 1965	Bitumen emulsion for roads (tanionic type).
276	3129- 1985	Low density Particle board for insulation purposes.
277	3188- 1965	Dimensions for disc. insulators (first revision).

278	3287- 1965	Industrial lighting fitting with plastic reflections.
279	3308- 1981	Wood wool building slabs.
280	3311- 1979	Waste plug and its accessories for sinks and wash basins (first revision)
281	3323- 1980	Bi pin lamp holders for tubular fluorescent lamps
282	3324- 1982	Holders for starters for tubular fluorescent lamps.
283	3348- 1963	Fiber insulation boards.
284	3384- 1986 3386-1979	Bitumen primer for use in water-proofing and damp-proofing
285	3419- 1976	Fitting for rigid non-metallic conducts (second revision)
286	3427- 1969	Metal enclosed switchgear and control gear for vollages above 1000 volts but not exceeding 11000 volts.
287	3461- 1980	PVC asbestos floor tiles
288	3462- 1986	Flexible PVC flooring (second revision)
289	3480- 1966	Flexible steel conduits for electrical wiring
290	3486- 1966	Cast iron, spigot and socket drain pipes
291	3502- 1981	Steel chequered plates (first revision)
292	3536- 1966	Ready mixed, brushing, wood primer, pink
293	3537- 1966	Ready mixed paint, finishing, interior for general purposes
294	3539- 1966	Ready mixed paint, undercoating for use under oil finishes as required
295	3553- 1966	Watertight electric lighting fittings.
296	3564- 1986	Door closers (hydraulically, brushing, priming water resistant for wood work
297	3585- 1966	Ready mixed paint, aluminum, brushing, priming water resistant for wood work.
298	3639- 1966	Fittings and accessories for power transformers
299	3678- 1966	Ready mixed paint, thick white for lettering.
300	3696(Part-I)- 1987	Safety code for excavation work.
301	3696(Part-II)- 1966	Safety code for scaffolds and ladders, part-II ladders
302	3764-1966	Safety code for excavation work.
303	3812(Part-III) - 1981	Fly ash for use as pozzolana and admixtere (first revision)
304	3818-1986	Continuous (piano) hinges (second revision)
305	3837-1976	Accessories for rigid steel conduits for electrical wiring (first revision)
306	3847-1966	Mortice night latches.
307	3854-1966	Switches domestic and similar purposes
308	3986-1984	Centrifugally cast (spun) iron spigot and socket waste and ventilating pipes, fittings and accessories (first revision)
309	4004-1985	Application guide for nonlinear resistor type surge arrestor for AC system (first revision)
310	4014-(Part-II)- 1967	Code of practice for steel tubular scaffolding Part-II, safety regulations for scaffolding
311	4020-1967	Method end test for wooden flush doors type tests

312	4064 (Part I-II)1978	Air break switches, air break disconnectors, air break switch disconnectors and fuse combinations unit for voltage not exceeding 1000 VAC or 1200 VDC (first revision)
313	4081-1986	Safety code for blasting and related drilling operations(1 <sup>st</sup> revision)
314	4130-1976	Safety code for demolition of building (1 <sup>st</sup> .revision)
315	4130-1976	Interlocking switch socket outlets
316	4246-1982	General requirement for switchgear and control gear for voltage not exceeding 1000 volts (first revision)
317	4246-1982	Washers for water taps for cold water service(first revision)
318	4251-1976	Steel door frames(first revition)
319	4457-1982	Ceramic unglazed vitreous acid resistant tiles (1 <sup>st</sup> revision)
320	4615-1968	Switch socket outlets (non-interlocking type)
321	4671-1968	Specification for expanded polystyrene for thermal insulation purpose
322	4648-1968	Guide for electrical layout in residential buildings
323	4710-1968	Switch and switch isolators above 1000 volts but not exceeding 11000 volts.
324	4832(Part-II)-1968	Chemical resistant mortars, Part-II, Resin type
325	4832 (Part-III)-1968	Chemical resistant mortars, Part-III, sulphur type
326	4835- 1979	Polyvinyl acetate dispersion based adhesive for wood (first revision)
327	4860-1968	Acid resistant bricks
328	4948-1974	Welded steel wire fabric dor general use (1 <sup>st</sup> .Revn)
329	4984-1987	High density polyethylene pipes for portable water supplies, sewage and industrial effluent (second revision)
330	4985-1988	Un-plasticized PVC pipe for Potable water supplies (second revision)
331	5039-1983	Specification for distribution pillars for voltage not exceeding 1000 volts.
332	5083-1973	Knifing stopper (first revision)
333	5121-1969	Safety code for piling and other deep foundations
334	5133 (Part-I) - 1969	Boxes for enclosures for electrical accessories Part-I , steel and cast iron boxes
335	5187-1972	Flush bolts(first revision)
336	5216-1969	Guide for safety procedures and practices in electrical works.
337	5219 (Part-I)-1969	Cast copper alloy traps Part-I,'P' & 'S' traps
338	5300 -1969	Porcelain guy strain insulators
339	5382-1969	Rubber sealing rings for gas mains, water mains and sewers (1 <sup>st</sup> .rev)
340	5410-1969	Cement paint, colour as required
341	5411(Part-II)-1974	Plastic emulsion paint, Part-I, for interior use (first revision)
342	5411(Part-II)-1972	Plastic emulsion paint,Part-II for exterior use

343	5437-1969	Wired and figured glass
344	5454-1978	Methods for sampling of clay building brick (first revision)
346	5531 (Part I to III)-1977	Cost iron specials for asbestos cement pressure pipes for water, gas and sewage (first revision)
347	5613 (Part-I, Sec-I)-1970	Code of practice for design, installation and maintenance of overhead power Lines-Part-I-Line upto and including 11 KV section-1 Design.
348	5613 (Part-I, Sec-2)-1971	Code of practice for design, installation and maintenance of overhead power Lines-Part-I-Line upto and including 11 KV section-1 Design.
349	5640-1970	Method of test for determining aggregates impact value of soft coarse aggregates.
350	5660-1970	Ready mixed paint, brushing, aluminium red oxide primer.
351	5691-1970	Lacquer cellulose, Pigmented, finishing, glossy.
352	5779 -1986	Burnt clay soling bricks. (First revision).
353	5820 -1970	Precast concrete cable covers.
354	5961 -1970	Safety code for construction involving use of hot bituminous materials.
355	5930 -1970	Mortise latch (Vertical type).
356	5959 (Part-I) - 1970	Polyethylene insulated and PVC sheathed (heavy duty) electric cables, Part-I for working voltage upto and including 1000 volts.
357	5059 (Part-II) - 1970	Polyethylene insulated and PVC sheathed (heavy duty) electric cables, Part-I for working voltage upto and including 1000 volts.
358	6163 -1978	Centrifugally cast (spun) iron low pressure pipes for water gas and se wage (first revision).
359	6165 -1971	Dimensions for special shapes of clay bricks.
360	6248 -1974	Metal rolling shutter and rolling grills (First revision).
361	6313 (Part-I) - 1981	Antitermite Measures in Building. Construction at measutres (first revision).
362	6313(Part-II)	Antiternite measures in building. Preconstruction chemical treatment measure (First revision).
363	6313 (Part-III)- 1981	Aniternite measures in building. Treatment for existing fuiliding (first revision).
364	6439 -1978	Heptachlor emulsifiable concrete door and window frames (First revision).
365	6523 –1972 6530-1972	Precast reinforced concrete door and window frames (First revision).
366	6607 -1972	Rebated mortise locks (vertical type).
367	6639 -1972	Hexagon bolts for steel structures.
368	6908 -1975	Non Pressure Asbestos cement pipes and fitting for sewerage and fittings for sewerage and drainage stopper.
369	7164 -1973	Stopper.
370	7197 -1971	Double action floor spring (without oil Check) for heavy doors.
371	7205-1973	Safety code for erection of structural steel work.
372	7293-1974	Safety code for working with construction machinery.
373	7307 (Part-I)- 1974	Approval tests of welding procedures Part-I, fusion welding of steel.

374	7534 -1974	Mild steel locking bolts with holes for padlocks.
375	7861 (Part-I) - 1971	Code of practice for extreme weather concreting recommended practice for hot weather concreting.
376	7861 (Part-I) - 1981	Code of practice for extreme weather concreting recommended practice for cold weather concreting.
377	7969 -1975	Safety code for storage and handling of building materials.
378	8008 (Part-I to VI)-1976	Injection molded high density polyethylene (HDPE) fitting waste supply.
379	8061--1978	White portland cement (first revision).
380	8061-1976	Code of practice for design, installation and maintenance of service lines up to and including 650 volts.
381	8183-1976	Bonded mineral wool.
382	8360 (Part-I to III)-1977	Fabricated high density polyethylene (HDPE) Fittings for portable water supplies.
383	8756-1978	Ball catches for use in wooden almirahs.
384	8931-1978	Cast copper alloy fancy bib taps for water services.
385	8934-1978	Cast copper alloy fancy pillar taps for water services.
386	9224 (Part-II)- 1979	HCRC cartridge fuse links up to 650 Volts.
387	9385 (Part-II)- 1980	High voltage expulsion fuse and similar fuses.
388	9537-1980	Conduits for Elec installation.
389	9595-1980	Recommendation for metal arc welding of carbon manganese sheet.
390	9968 (Part-I and II)-1988 (Part-I) (Part-II)	Specification for Elastomer insulated cables. For working voltages upto and including 1100 volts For working voltage from upto 3.3 KV upto and including 11 KV
391	10440-1983	Code of practice for construction of RB and RC floor and roof.
392	10521-1983	Specification for Collapsible gates.
393	12701-1989	Specification for rotational molded polyethylene water storage tanks.
394	12866-1984	Plastic translucent steel glass Fiber reinforced.

## SPECIFICATION OF MATERIALS IN GENERAL

- i) Material shall be of the best approved quality obtainable and they shall comply with the respective Indian standards specification.
- ii) Samples of all materials shall be got approved before placing order and approved sample shall be deposited with the Engineer-in-charge.
- iii) In case of non-availability of materials in metric sizes, the nearest size in FPS units shall be provided with the prior approval of the Engineer-in-charge.
- iv) If directed, materials shall be tested in any approved testing laboratory and test certificated in original shall be submitted to the Engineer-in-charge and the entire charges connected with testing including charges for repeated tests, if ordered, shall be formed by the contractor.
- vi) It shall be obligatory on the part of the contractor to furnish certificate, if demanded by the Engineer-in-charge, from manufacturer or the materials and as per their recommendations.
- vii) Unless otherwise mentioned in the Schedule of quantities, quality and specifications of some general constructions materials be specified hereunder.

### 1. CEMENT:

Cement shall comply in every respect with the requirement of latest publication of IS 269 and unless otherwise specified ordinary Portland cement shall be used

All cement shall be fresh when delivered and free lumps and otherwise undamaged.

It shall be used directly from bags. Cement shall be stored in perfect water tight well ventilated shed. The floor of the shed shall be at least 15 cm. above ground with wooden planks at the top.

The weight of ordinary Portland cement shall be 1440 Kg per cum. It shall be measured by weight in whole bahs, and each undisturbed 50 Kg bag being considered equivalent to 35 ltrs. (1-20) cft. in volume. In case unused part bag, cement shall be taken by weight or measured in measuring boxes.

Cement of approved quality by the Engineer-in-charge shall always be used for the work. Test certificates shall be submitted to the Engineer-in-charge before utilizing cement for any work in the cases where cement is procured by the contractor.

### 2. LIME:

Lime shall comply with requirements of IS No.172 and shall be made from approved lime stone or kankar and properly burnt. It shall be free excess unburnt kankar or lime stone ashes or other extracts materials and shall be stored in perfectly water tight sheds. Lime which has been damaged by rain moisture or air slaking shall not be used and shall be once removed through appropriate screens and stored and used within 14 days provided it is protected from drying out.

Field tests according to IS:1624 shall be carried out from time to time to determine the quantity of lime.

### 3. FINE AGGREGATE (SAND)

- a) Regional sand produced by the natural disintegration at hard rock can be used but should be from all deleterious Impurities like clay and bill.
- b) Mica in sand should not be more than 0.5%.
- c) Shell content should not be more than 1%.
- d) The total content of clay, silt and dust should not exceed 4%
- e) The organic impurities should be less than determined by standard color test.

- f) Grading of sand should be within the limits of standard requirements for the class.
- g) ( Fine aggregate ) the Particles of sand should be within the limits 0.15 to 4.76 mm

## 2. SAND FOR MORTARS:

- a) The permissible content of silt, clay and dust should not be more than 8-10%
- b) The maximum size of sand particle for brick masonry should be 2.5 mm for rubble masonry 4.7 mm and for plaster 1.2 mm.

## SAND FOR FILLING:

The maximum and minimum sizes of sand for filling are 4.75 mm and 2.50 mm respectively . Local sand of river, which has a silt content of 20 to 30% can be used for this portion of work.

## 4. COARSE AGGREGATE:

It shall be crushed stone like granite, quartzite, trap, basalt or any approved stone. It shall conform to IS:515 coarse aggregate shall be chemically inert when mixed with cement & shall be free from soft, friable, thin porous, laminated or flaky pieces. It shall be free from soft, friable, thin porous, laminated or flaky pieces. It shall be free from dust and any other foreign matter. It shall be washed if so directed by the Engineer-in-charge. Passed through IS: sieve 4.75.95% of coarse aggregate shall be retained. Aggregate with skin should not be used.

## 5. REINFORCING STEEL:

Shall be mild steel bars or Tor steel complying with IS:432-1966 and IS:1786 and IS: 1139 of hard drawn steel wire fabric conforming to IS:1566-1967.

All finished bars shall be free from cracks, surface flaws, and laminations, jagged and imperfect edges. Wire used for tying and securing reinforcing steel in position shall be MS annealed soft iron wire of 18 gauge.

## 6. BRICKS:

Bricks shall be of first quality available, hand or shop moulded, well burnt, having plane rectangular faces with parallel sides and sharp right edges, proper compaction and uniform texture. These shall be free from cracks, chips, flaws, stones or lumps of any kind and shall emit clear ringing sound on being struck and shall not absorb water more than 20% by weight. Common building bricks shall have minimum compressive strength of 30 Kg/cm<sup>2</sup>.

Bricks shall generally comply with IS. 1077 except in size which shall be conforming to the size available locally – shall be of any suitable size and shape for and centrally on one of the target steel of the bricks and shall not –

7. WATER: Water shall be clean, reasonably clear and free from objectionable quantity of silt and traces of oil, acid, injurious alkali, salts, organic matter and other deleterious materials which will either weaken the mortar or concrete or cause efflorescence or attack the steel in reinforced cement concrete. Water shall be obtained from sources approved by the Engineer-in-charge. Potable water shall be obtained from sources for mixing and curing concrete, mortars masonry etc.

## 8. STONES:

All stones shall be hard, sound, durable, free from defects, i.e. cavities, flaws, sandholes, injurious veins, patches of loose materials etc. As far as possible stone shall be of uniform colour and texture. The percentage of water absorption shall be carried out as laid down in IS: 1124-1957 method of test for water absorption of natural building stones. The stones are generally hard granite obtained from the approved quarries and totally free from any skin and other defects.



9. Timber:

Timber shall be of good quality, well seasoned, fairly uniform in texture, free from loose knots, veins injurious open shakes, borer holes, rot, decay, discoloration, soft or spots, soak or shakes.

Timber shall either be obtained in cut sizes or shall be cut to the required sizes well in advance of the commencement of fabrication and stacked at site of work in a suitable manner for further seasoning.

Timber with loose grains, splits, boxed heart or streaks, shakes, springs and cups, wanes, compression wood in coniferous timber, heart wood, knots, saprot, warp and worm holes made of powder pest beetles and pitch pockets shall be eliminated.

Sap wood shall not be more than 15 percent of area of the section in case of first class timber, in other case of timbers, sap wood shall not be permitted unless the timber is thoroughly impregnated with approved wood preservatives.

In structural members, knots, shakes and checks shall not be permitted in regions of maximum stress intensities nor shall they be permitted at locations where joints are to be provided.

## SPECIFICATION FOR PLUMBING AND SANITARY WORK

10. Galvanized iron pipes and fittings:

All galvanized iron pipes and fittings shall be of malleable steel of class specified and shall conform to relevant latest Indian standard specification. All the pipes and fittings shall be of best Indian make and the sample shall be approved prior to fixing and shall be as per Indian standard specifications of the class specified in the schedule.

11. CAST IRON PIPES AND FITTINGS:

The cast iron pipes (soil, water and drain) shall be of EXLC or SLC brand or equivalent. Cast Iron drain fitting shall be of EXLC or SLC brand or equipment. The pipes/fittings shall be of smooth casting. The pipes shall have projecting ears cast on and to be securely fixed by stout iron nails driven through them into the wooden plugs built into the walls. All bends, branches and other parts shall be similar in every respect to the pipe. Cast iron spun pipes only shall be used for water supply lines and shall be of best Indian make and class specified and shall conform to latest Indian standard specification.

12. STONE WARE PIPES AND FITTINGS:

These shall conform to the latest Indian standard specification.

13. LEAD PIPES:

The weight and size of lead pipes used on the work shall conform to the latest Indian standard specification, sheet lead for flushing shall weigh 6 lbs per sq. ft. (30 Kg./ Sq. m) weight of lead pipes shall be as under.

Inside dia of pipe	Weight in Kg. per meter
12 mm	1.2
20 mm	2.0
25 mm	2.7

14. PUTTY:

Putty shall be composed of best quality whiting mixed with boiled linseed oil properly and thoroughly kneaded to the required consistency.

15. PAINT:

Base: These shall be of best white lead, Zinc white or oxide iron of approved make.

Vehicle: The oil shall be double boiled linseed oil and shall appear when filled in a phial, limpid, pale and brilliant. It shall taste sweet, with very little odour and shall be of approved quality, solvents shall be spirits or turpentine.

Pigment: These shall be of selected tints and of approved make

16. SANITARY WARE AND ITS ALLIED FITTINGS:

All sanitary ware with its allied fittings must be best Indian makes and approved the Engineer-in-charge. The contractor must state in his tender clearly the brand of sanitary ware for which he has quoted. They are to be fixed by means of phill plugs and similar fixing compounds.

17. TAPS:

Taps shall be heavy screw pattern type of best Indian make or equivalent and approved by the EIC and shall be of brass and chromium plated and capstain headed the contractor shall state the make of taps while quoting.

18. Closets:

Closets shall be of earthen ware of fire clay, glazed Inside and outside. The area of water shall be large and the depth of the seal shall not be less than 50 mm or as specified. Flush pipes shall not weight less than 2.7% Kg. Per meter.

The seat and Cover of European closet shall be of plastic of approved make and colour.

A sample shall be got approved by the Engineer-in-charge before supply is effected.

19. FLUSHING CISTERNS:

Where not specified the flushing cisterns of W.C and urinals shall be best Indian make or equivalent. The cisterns shall be of cast iron, painted white 'DUCO' sparay paint where specified and with cover and brackets etc. complete. The capacity of cistern for Indian closets shall be 10 Ltr) and that for European closets shall be of the 'LOW' level type and approved make. They shall be fitted with unions for connections to laid service pipes. The overhead cistern shall be fixed on suitable cast iron brackets.

20. for detailed specification in respect of quality of materials, workmanship for execution of various items etc, the prevailing MES, SSR Zone –A shall be strictly followed.

21. To regulate the payment of various items, the measurements will be taken and recorded in the M.Books. the mode of measurements as prescribed in the prevailing MES, SSR Zone 'shall be followed.

22. BASIS FOR CALCULATION FOR CONSUMPTION OF MATERIALS:

After the completion of the work the consumption of materials/stores issued by HAL will be checked on the basis of the theoretical calculations as following:

a) CEMENT: The theoretical calculation of the quantity of cement in respect of each item of work under this contract shall be as per standard Engineering norms. Such norms are available with the Engineer-in-charge who shall verify and certify the consumption with reference to such norms.

b) STEEL: In case of steel reinforcements the steel physically used in the work as per the design authorized by the manager or senior Manager works and Dy. Manager (Works) HAL shall only be measured giving allowances for overlaps, chairs, etc. In case of steel physically used in the steel fabricated work will be only measured. The weight of the steel will be arrived at after as per I.S.Code, the theoretical quantity of steel required for the work will be the measured quantity of the steel as described above plus wastage due to cutting into pieces.

- 5% if the contract value is Rs. 2 lakhs and below.
- 4% if the contract value is below Rs. 5 lakhs but more than Rs.2 lakhs.
- 3% if the contract value is more than Rs. 5 lakhs.

### 23. RETURN OF SURPLUS AND UNUSED MATERIALS/ISSUED BY HAL:

After the completion of the work or abandonment thereof or cancellation of contract for whatsoever reasons it may be, the contractor shall account for and physically handover all the unused and surplus stores and materials and materials, which are issued to the contractor by HAL, to the HAL stores, All expenses incurred involved in counting, loading, unloading transport and labour etc. for the purpose of handing over of the same at HAL stores shall be borne by the contractor himself. The quantity of the surplus/unused materials which shall be handed over by the contractor shall be arrived at by deducting the theoretical consumption of respective stores/materials as detailed above from the total quantity of stores/materials issued to the contractor.

While taking over such unused/surplus stores from the contractor, HAL shall not accept cement of set or clotted condition or otherwise defective, in case of reinforcement rods and structural steel cut pieces upto and below one shall not be accepted by HAL as return of unused/ surplus materials. The decision of Engineer-in-charge in the above respect shall be final, inclusive and binding on the contractor, for any shortage in the stores to be handed over by the contractor, the contractor shall have to pay at double the issue rates under the contract, which shall be recovered from the contractor.

MANAGER (WORKS)

‘works Engineering DETP-

CONTRACTOR

**Bill of Quantity for the work of " Periodical Services such as painting, polishing etc. at  
HAL Corporate Office, Bangalore".**

Sl. No.	Description	Qty.	Unit	Rate	Amount
1	Supplying, carrying to site all approved materials and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface, even smooth and also apply two coats of paint on wall/ceiling with <b><u>plastic emulsion</u></b> of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding, safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	13000.00	m2		
2	Supplying, carrying to site all approved materials, and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface even smooth and apply two coats of <b><u>synthetic enamel paint on wall surface</u></b> of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding , safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	500.00	m2		
3	Supplying, carrying to site all approved materials, and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface even smooth and apply two coats of <b><u>synthetic enamel paint on steel structures</u></b> such as windows, ventilators etc. of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding , safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	1000.00	m2		

4	Supplying, carrying to site all approved materials, and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface even smooth and apply two coats of <b><u>synthetic enamel paint on wooden structures</u></b> such as windows, ventilators etc. of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding , safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	500.00	m2		
5	Supplying, carrying to site all approved materials and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface, even smooth and also apply two coats of paint on wall/ceiling with <b><u>oil bound distemper</u></b> of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding, safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	4000.00	m2		
6	Supplying, carrying to site all approved materials and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface, even smooth and also apply two or more coats of <b><u>french polish</u></b> of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding, safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	1500.00	m2		
7	Supplying, carrying to site all approved materials, labour, scaffolding, tools & tackles and carrying out the work of <b><u>cleaning the stone/ veneratex surface on the vertical surface of the building (approx. area 4300 sq. m)</u></b> by removing stains, black marks, including scrapping, sand papering wherever required. The work shall be carried out by using necessary scaffolding, safety appliances, etc. at any height. The work shall be carried out with out	1.00	Lot		

	damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.				
8	Supplying, carrying to site all approved materials and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface, even smooth and also apply two or more coats of <b><u>melamine polish</u></b> of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding, safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	500.00	m2		
9	Supplying, carrying to site all approved materials, and prepare the existing old painted surface by removing old paint, scrapping, sand papering and preparing the surface smooth including the necessary repairs to scratches etc. and match the surface even smooth and apply two coats of <b><u>cement paint Exterior emulsion Asian Paint - Apex Ultima</u></b> such as windows, ventilators etc. of approved brand and manufacturer, colour and shade to give an even finish. The work shall be carried out by using necessary scaffolding , safety appliances, etc. at any height. The work shall be carried out with out damaging the surrounding area and restore the disturbed portion. The work is to be carried out as per specification and direction of the Engineer-in-charge.	400.00	m2		
10	Providing & laying cast-in-situ <b><u>reinforced concrete of M-20 grade (1:1.5:3)</u></b> using 20mm and down size coarse graded machine crushed hard stone aggregate and placing at all lifts/ depths and placing in position at all lifts & levels, including vibrating, consolidating, curing and finishing as required all exposed faces, complete for the plinth beams, chajja, beam etc. straight, curved, plain, tapered or sloped, dewatering wherever necessary. The cost of all complete materials, labour, all leads and lifts, tools, tackles, plant and machineries, hire and fuel charges and all other incidental charges etc., all as per specifications ,drawings & direction of Engineer in charge. ( the rate excludes steel reinforcement, insert plates which will be paid separately under relevant items). The work shall be carried out with out damaging the surrounding area and it shall be carried out as per specification and direction of Engineer-in-charge.	2.00	m3		

11	Supplying all approved materials, carrying to site providing <b><u>centering, shuttering and de-shuttering</u></b> after concrete to soffits of suspended slab, beams etc., using 12mm thick ply wood on rough finished surfaces of concrete of flat surface, as per the direction of EIC.	25.00	m2		
12	Supplying,fixing in position <b><u>8mm dia and over, TMT bars of approved make of Fe 500 grade</u></b> cut to length, bent to shape required, including cranking, bending spirally for hooping for columns, hooking ends and binding with and including mild steel wire (annealed) not less than 0.9mm dia or securing with clips at all levels with all necessary materials, labour, scaffoldings, tools and tackels, plants, etc. complete as per specifications, as per drawings and as directed by Engineer-in-charge.	50.00	kg		
13	Supplying, carrying to site all approved materials, providing <b><u>1st Class brick work built in CM 1:6</u></b> . The work shall be carried out in proper bond and connected with the existing structure and curing the same up to required period. The work shall be carried out without damaging the surrounding aea and it shall be carried out as per the specification and direction of Engineer-in-charge.	5.00	m3		
14	Supplying, carrying to site all approved materials, providing <b><u>1st class brick work built in CM 1:4 half brick masonry</u></b> . The work shall be carried out with proper bond, if necessary; it is to be connected to the exisiting struture with support bond. The work also incudes curring the masonry wall to the required period. The work shall be carried out with out damaging the surrounding area and the work shall be carried out as per specification and direction of the Engineer-in-charge.	25.00	m2		
15	Supplying, carrying to site all approved materials and repair damaged <b><u>plaster in cement mortar 1:4</u></b> of thickbess 12 to 20mm (average thickness 15mm) at any height/depth for wall/ceiling etc., complete. The work is to be carried out as per specification and direction of the Engineer-in-charge	100.00	m2		
16	Supplying all approved materials, carrying to site and laying <b><u>7 to 8mm thick ceramic glazed/ matt finished colored anti skid tiles</u></b> on floors after removing the existing tiles, set and jointed with cement mortar/slurry and pointed in white/colored cement to match the coloured tiles. The tiles shall be fixed on the exisiting floors by using suitable cement paste/adhesive. The work shall be carried out as per the specification and direction of Engineer-in-charge.	10.00	m2		

17	Supplying all approved materials, carrying to site and laying <b><u>6mm thick ceramic glazed/ matt finished colored tiles on dado</u></b> set and jointed with neat white cement slurry and pointed in white/colored cement to match colored tiles. The work also includes removal of tiles as per site requirement. The tiles shall be fixed on the existing dado by using suitable cement paste/adhesive. The work shall be carried out as per the specification and direction of Engineer-in-charge.	40.00	m2		
18	Supplying carrying to site all approved materials and laying 10 to 12mm thick <b><u>vitrified shine finished light colored tiles of size 595x595</u></b> on the floors after removing the damaged tiles, existing cement adhesive and preparing the surface. The tiles shall be laid after removing the existing damaged tiles by using approved adhesive of fosroc cement of MPA grade/ CM 1:4 20mm thick. The tile is to be set and joined in cement/ adhesive and pointed with white/ colored cement to match the colored tiles. The work shall be carried out as per specification and direction of Engineer-in-charge.	20.00	m2		
	Total				

**I/ We also agree to all Terms & Conditions as detailed in the tender documents.**



**To**

**The Deputy General Manager (Works),  
Works Engineering Dept.,  
Hindustan Aeronautics Limited,  
Corporate Office, 15/1, Cubbon Road,  
Bangalore 560 001.**

Sir,

**Sub: Tender for the work of Periodical Services such as painting, polishing etc. at HAL Corporate Office, Bangalore premises as, indicated in Appendix-F.**

I/We hereby offer to carry out the execution of the work of Periodical Services such as painting, polishing etc. at HAL Corporate Office, No.15/1, Cubbon Road, Bangalore and its premises, as indicated in Appendix-F.

2. I/ We have carefully perused the following tender documents connected with the above noted work and agree to abide by the conditions therein:

2.1	Tender Notice	Appendix - A
2.2	Condition for issue of Tender	Appendix - B
2.3	Instructions to bidders	Appendix - C
2.4	General conditions of contract	Appendix - D
2.5	Special conditions of Contract labor regulations	Appendix - E
2.6	General specifications	Appendix - F
2.7	Schedule of materials to be issued	Appendix - G
2.8	Bill of Quantities & other Enclosures	Appendix - H
2.9	Tender Agreement	Appendix - I

3. I/We enclose herewith a sum of **Rs.18,520.00** by Demand draft in favour of M/s. Hindustan Aeronautics Limited, Corporate Office, Bangalore as Earnest money Deposit which shall be refunded in case this tender is not successful. I/we further agree to deposit the security deposit of the work i.e. 5% of contract amount (in the form of Demand Draft) Rs.....(in words). The EMD of **Rs.18,520.00** paid along with tender is adjusted against the above security deposit.

a. In addition to security deposit, Retention Money should be deducted at 5% from Running Bills. Total of Performance Guarantee & Retention Money should not exceed 10% of

Contract amount. However, Retention money recovered should not be less than 5% of Final Bill value including Deviations if any.

b. 5% Performance Guarantee should be refunded within 30 days of the issue of the defect liability Certificate (taking over Certificate with a list of defects) / Completion Certificate. Retention money should be refunded after Defects Liability period.

5. I/we further agree to execute all the work referred to in the said documents as per the terms and conditions contained or referred to therein and as detailed in the Appendixes to the Tender and as detailed above. The contractor to carry out such deviations as may be ordered up to maximum of 50% of the individual items and ordered within 10% of the contract sum including non tendered items [10% of (50% of the contract sum)].

6. I/we hereby agree to the arbitration clause as indicated in the General Conditions (Appendix-D) of these tender documents.

**Yours faithfully**

**Signature of the Tenderer**

**Date:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Witnesses:**

1.

2.