



सीएसआईआर-केंद्रीय विद्युतरसायन अनुसंधान संस्थान
CSIR-CENTRAL ELECTROCHEMICAL RESEARCH INSTITUTE
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद/Council of Scientific & Industrial Research)
कारैकुडी/KARAIKUDI – 630 006

No. 08-13(46)2009-W

Dated: 26.05.2011

TENDER DOCUMENT

To be submitted in a sealed cover addressed to the Director, CECRI, Karaikudi –630 006.

Sl. No.	Name of work	Estimated cost (Rs.)	EMD (Rs.)	Tender fee * (Rs.)	Time for completion
1	Construction of Primary Block of KV school at CECRI, Karaikudi.	1,68,06,737/-	3,36,135/-	1040/-	12 months

TENDER ISSUE DATE	01.06.2011 to 14.06.2011
LAST DATE & TIME FOR SUBMISSION OF SEALED TENDERS BY TENDERERS	16.06.2011 - 3.00 p.m.
TENDER OPENING DATE & TIME	16.06.2011 - 3.30 p.m.
E.M.D TO BE DEPOSITED ALONG WITH TENDER	2% of the Estimated cost

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Signature of Section Officer (W)
CECRI, Karaikudi-6

Tender issued to:

Signature of the Tenderer:



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No.08-13(46)2010-W

Dated: 26.05.2011

NOTICE INVITING TENDER No.5/2011

ITEM RATE SEALED TENDERS are invited by the Director, Central Electrochemical Research Institute, Karaikudi for the following work from contractors of appropriate class of CPWD, Railways, MES, Post and Telegraph Department and/or from those who have carried out one/two/three similar works of 80%/60%/40% respectively of the estimated cost for CSIR, other Central/State Government/Autonomous Organizations for the last seven years.

Sl. No.	Name of work	Estimated cost (Rs.)	EMD (Rs.)	Tender fee * (Rs.)	Time for completion
1	Construction of Primary Block of KV school at CECRI, Karaikudi	1,68,06,737/-	3,36,135/-	1040/-	12 months

(*inclusive of VAT 4%)

Tender forms can be obtained from Section Officer (Works), CECRI, Karaikudi on payment of prescribed tender fee (non-refundable) on all working days from **01.06.2011 to 14.06.2011** between 9.30 am and 3.00 pm by cash (before 12.00 noon) or Demand Draft (non refundable) drawn in favour of the **Director, CECRI, Karaikudi**, for the above value.

Tenders should be submitted in a sealed cover superscribing the name of the work on the envelope. Tenders duly filled-in in all respects will be received upto 3.00 p.m. on **16.06.2011** and will be opened at 3.30 p.m. on the same day at the Administrative Building (Works Section) of CECRI, Karaikudi in the presence of the tenderers present.

Tenders and/or earnest money receipt or Demand Draft received after 3.00 pm. on **16.06.2011** whether sent by post or delivered in person are liable to be rejected. Tenders submitted without EMD or with defective EMD shall not be considered.

CECRI shall not in any way be responsible for any postal delay either in receipt of the tender documents by the tenderers and/or submission of tenders to the Institute.

It is the sole responsibility of the Contractor to engage the labourer for execution of the works and this Institute is free from all liabilities whatsoever for any violation of provisions of the Contract Labour (Regulation & Abolition) Act, 1970 or any other statutory provisions under the Act or any other labour laws by the Contractor.

It is obligatory on the part of Contractors to obtain labour licence from the Department of Labour, Sivagangai District and ESI & EPF code numbers from the Authorities concerned, insurance coverage for workers and produce the same for records.

Director, CECRI, Karaikudi reserves the right to reject any or all the tenders received or award the work in part or in full without assigning any reason whatsoever. In all matters pertaining to this tender, the decision of the Director, CECRI, Karaikudi shall be final and binding.

CONTROLLER OF ADMINISTRATION

GENERAL CONDITIONS OF CONTRACT

(a) In construing these conditions, the Specifications, the Schedule of Quantities, Tender, Special Conditions and Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires.

(b) This contract shall comprise of the Articles of Agreement, General Conditions of Contract, Special Conditions, Additional Special Conditions, the Schedule of Quantities, Specifications, letter of acceptance of tender and other documents mentioned in the contents sheet attached hereto and including those to which only reference is made herein.

WORK OR WORKS: shall mean all work or works defined in schedule of quantities, specifications and such other work or works as the contractor may be entrusted with for carrying out under this contract.

EMPLOYER: shall mean Director-General, CSIR or any officer authorised by Director-General for the purpose.

ENGINEER: shall mean the Engineer designated by the Employer to superintend and perform other duties as indicated in the contract

CONTRACTOR: shall mean the individual or Firm or Company, whether incorporated or not, undertaking the work and shall include the legal personal representative or such individual or the persons composing such Firm or Company or the successors of such Firm or Company and the permitted assignees of such individual or Firm or Firms or Company.

SITE: shall mean the site of the contract works including any buildings and erections thereon and any other land adjoining thereto (inclusive) as aforesaid allotted by the Employer or the Engineer for the contractor's use.

COMPENSATION: shall mean all sums payable by way of compensation under any of the conditions shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not any damage sustained, and whether or not any damage shall have been sustained.

Words imputing persons include firms and corporations, words imputing the singular only also include the plural and vice versa where the context so required.

The headings are given to the clauses for convenience and they will not limit the meaning or scope of the clauses in any way.

2. DRAWINGS AND SPECIFICATIONS

The contractor shall execute whole and every part of the work in the most substantial and workmanlike manner both as regards material and otherwise in every respect in accordance with the specifications. The contractor shall also conform exactly and - faithfully to the design, drawings and instructions given in the respect of the work by the Engineer. The contractor shall be furnished free of charge one copy of such

specifications and all such designs, drawings and instructions as are not included in the printed publications.

3. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

- (a) The contractor shall provide at his own cost all materials, (except such materials, if any as may in accordance with the contract be supplied by the Employer) plants, tools, appliances, implements, ladders, scaffolding, temporary works, etc. requisite or proper for the execution of the work whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or which may be necessary for the purpose of satisfying or complying to the requirements of Engineer, as to any manner as to which under these conditions he is entitled to be satisfied together with carriage therefor to and from the work. The contractor shall also supply without charge the requisite number of persons with means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract and/or from his Security Deposit.
- (b) The contractor shall provide himself with requisite quantity and quality of water for carrying out the works at his own cost. If, however, piped water is supplied by the Employer, the contractor shall pay for the water at one percent of the total cost of the work done except on Electrical work, Air-conditioning work and Furniture work. The contractor shall make his own arrangement for water connection and laying of further pipelines from the source of supply of the Employer. It should be clearly understood that the Employer does not guarantee to maintain un-interrupted supply of water and it will be incumbent on the part of the contractor to make alternative arrangement of water at his own cost in the event of any temporary break-down in the water mains so that the progress of work is not held up for want of water. No claim as damages or refund of water charges will be entertained on account of such break-downs. However, if the contractor is permitted to make his own arrangement to draw water from a well, hand-pump, or natural river or pond of the Employer, no charges will be made for the water drawn from the same, but the contractor will make good any damage done to the installations and ensure that the quality of water used in the work is conforming to BIS codes and provide for any treatment at his own cost.
- (c) The contractor shall be allowed to construct temporary wells in Employer's land for taking water for construction purpose only after he has permission of the Employer in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangement to avoid any accident or damage to adjacent buildings, roads and service lines. He shall be responsible for any accident or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
- (d) The Employer on no account shall be responsible for the expenses included by the contractor for hired ground or water obtained from elsewhere.

- (e) Subject to availability the Employer may supply power at only one point from where the contractor shall make his own arrangement for distribution including provision of electric meters, switches, fuses etc. at his own cost. There shall be in the custody of the Employer. If there is any hindrance caused to other works the contractor shall reroute or remove such temporary lines without any extra cost. Such temporary lines shall be removed after the completion of work. The cost of power consumed by the contractor shall be payable to the employer at rates fixed by the Employer, which would be deducted from the running account bills. However the Employer does not guarantee the supply of power and no compensation for any failure or short supply of power shall be entertained.

3(A) SUFFICIENCY OF TENDER: The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of the tender for the works and the rates and the prices quoted in the schedule of items, which rates and the prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

4. AUTHORITIES, NOTICES & PATENTS

- (a) The contractor shall conform to any regulations and bye-laws of any corporation and of any electricity supply company and authorities with whose systems the structure is proposed to be connected, and shall before making any variations from the drawing and specifications that may be necessitated for so conforming by giving written notice to the Engineer specifying the variations proposed to be made, the reasons for making it and apply for instructions thereon. If the compliance with this clause involves any extra work not included in this contract, he shall specify these items of work and the allowance of extra payment required on their account.
- (b) The contractor shall give all notices required by the said regulations or bye-laws to be given to any Authority and pay to such Authority or to any public office all fees that may be chargeable in respect of the works and lodge the receipts with the bill to the Engineer for reimbursement.

5. RATES TO INCLUDE ALL TAXES

- (a) Rates quoted by the contractor shall include sales tax, duties, octroi, toll tax, royalties and all other taxes in respect of this contract and the Employer shall not entertain any claim whatsoever in this respect. Tendered rates are inclusive of all taxes and levies payable under the respective statutes. However pursuant to the Constitution (Forty Sixth Amendment) Act, 1982 if any further tax or levy is imposed by Statutes, after the date of receipt of tenders and the contractor thereupon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount as per the rules on producing proof of payment so made provided such payments, if any, is not in the opinion of the Employer (whose decision shall be final and binding) attributable to delay in executing of work within the control of the contractor.
- (b) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of the Employer and further shall furnish such other information and documents as the Employer may require.

- (c) The contractor shall within a period of thirty days of imposition of any further tax or levy pursuant to the Constitution (Forty Sixth Amendment) Act, 1982 give a written notice thereof to the Employer that the same is given pursuant to this condition together with all necessary information relating thereto.

6. MATERIALS

- (a) If the specifications of schedule of items provide for the use of any material to be supplied by the Employer's stores or if it is required that the contractor shall use certain stores to be provided by the Employer as shown in the schedule of materials hereto annexed, the contractor shall be bound to procure and shall be supplied such materials and stores as are from time to time required to be used by him for the purpose of the contract only and value of the materials so supplied at the rates specified in the said schedule, of materials and of the quantities incorporated in the work may be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract or otherwise or against or from the Security deposit. All materials so supplied to the contractor by the Employer shall remain the absolute property of the Employer and the contractor shall be the trustee of the materials so supplied / procured and the said materials shall not be removed/ disposed off from the site of the work on any account and shall be all times open for inspection by the Engineer or Employer. The contractor shall bear all incidental charges for cartage storage and safe custody of all materials and against damage due to dampness, rain, sun, fire, and theft and be fully responsible for their storage and maintenance. Any such material unused and in perfectly good condition in the opinion of the Employer at the time of the completion of work or termination of the contract, or earlier shall be returned to the Employer at a place directed by the Engineer at contractor's cost and at rates stipulated in the said schedule but in case the Employer decides not to take back the materials the contractor shall have no claim for compensation on account of any such materials supplied to him as aforesaid being unused by him or for any wastage or damage to any such materials.
- (b) If for any reason there is delay or non-supply of material as shown in the schedule, the contractor shall procure the same and complete the work in time after due intimation and approval of the Employer. The difference in price (between his procurement price and price shown in the schedule) shall be paid to the contractor. However in case approval of the Employer is not given, only suitable extension of time would be considered and no other claim of compensation/damages shall be payable by the Employer.
- (c) After completion of the work or on determination /termination of the contract, the theoretical quantity of cement to be used in work shall be calculated on the basis of statement showing quantity of cement to be used in different items of work provided in current schedule for the purpose printed by CPWD. In case any item is executed for which the standard constants for the consumption of cement are not available in the above mentioned statement or cannot be derived from this statement, the same shall be calculated on the basis of standard formula to be laid down by the Engineer. Over this theoretical quantity of cement shall be allowed a variation upto 3% plus/minus for works estimated cost of which as put to tender is not more than Rs.10 lakhs and upto 2% plus/ minus for works estimated cost of which as put to tender is more than Rs.10 lakhs. The difference in the quantity actually issued to the

contractor and the theoretical quantity including authorised variation, if not returned by the contractor shall be recovered at twice the issue rate, without prejudice to the provision of other conditions regarding return of materials governing the contract. In the event of its being discovered that the quantity of cement which is less than the quantity ascertained as herein before provided (allowing variation on minus side as stipulated above) the cost of quantity of cement not so used, shall be recovered from the contractor on the basis of stipulated issue rates and cartage to site.

- (d) The provision of foregoing sub-clause shall apply Mutatis-Mutandis in the case of steel reinforcement or structural steel sections (each diameter/section or category shall be considered separately) except that the theoretical quantity of the steel shall be taken as the quantity required as per design or as authorized by the Engineer, including lappages, plus 3% wastage due to cutting into pieces. Over this theoretical quantity 2% plus/minus shall be allowed as variation due to wastage.
- (e) The provision of foregoing sub-clause shall apply Mutatis-Mutandis in the case of cables (other than under-ground cables), wires conduits/GI pipes, GI/MS sheets used in various items of work shall be calculated in the basis of measurements recorded in the measurement books for the purpose or payment and for assessing the consumption of materials used in the works. Over this quantity a variation of 5% plus shall be allowed for wastage of materials during execution in case of cables (other than under ground cables), wires, conduits/GI pipes, and 10% plus in case of GI/MS sheets.
- (f) The provisions made above are without prejudice to the right of the Employer to take action against the contractor under the conditions of the contract for not doing the work according to the prescribed specifications.
- (g) In case of easy availability of approved quality of cement and steel in the open market it will be Employer's discretion to make this items as contractor's supply.

Note: Detailed terms regarding procurement and supply of cement and steel are provided in Annexure I.

7. TESTING OF MATERIALS

The contractor shall provide assistance, instruments, materials, labour and any other arrangement normally required for testing, checking of materials and workmanship as stipulated in the specifications and by statutory authority at his own cost. The Employer has the right to appoint the testing authorities. The contractor shall pay for the cost of test samples, its packing, transportation including testing fees. Failing his so doing, the same shall be provided by the Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract and/or from the Security Deposit or proceeds thereof or of a sufficient portion thereof.

8. CONTRACTOR'S ENGINEERS/FOREMAN & WORKMEN

- (a) The contractor shall give all necessary personal superintendence during the execution of the work and as long thereafter as the Engineer may consider necessary until the expiration of Defects Liability Period. The contractor shall employ

competent Site-Engineer/Foreman as per CPWD norms and as approved by the Engineer whose qualification must conform to the requirement specified by the Engineer who shall be constantly in attendance of the work while the men are at work. Any directions, explanations, instructions or notices given by the Engineer to such Site-Engineer or Foreman or any other authorized agent shall be held to be given to the contractor "Annexure II refers".

- (b) The contractor shall on the request of the Engineer immediately dismiss from the works any person employed thereon who may in the opinion of the Engineer be unsuitable or incompetent or who may in the opinion of the Employer misconduct himself.

9. ACCESS

- (a) The Engineer, and the Employer or its representative shall at all reasonable time have free access to the works and/or workshops, factories or other places the materials are being prepared or constructed for the contract and also to any place where the materials are lying or from which they are being obtained and the contractor shall give every facility to them for inspection. Except the representatives' of statutory authorities and those mentioned above no other person shall be allowed on the works at any time without the permission of the Engineer.
- (b) If any work is to be done at a place other than the site of works, contractor shall obtain written permission of the Engineer.

10. VARIATION & PRICE FOR VARIATION

- (a) The Engineer with the approval of the Employer shall have power to make any alterations/omissions/ additions and/or substitutions from the original specifications, drawings, designs, and written instructions and such alterations, omissions, additions, substitutions shall not invalidate the contract and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The rates for such altered, additional or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order.
- (b) If the rates for the altered, additional, or substituted work are specified in the contract for the work, the contractor is bound to carry out the altered, additional, or substituted work at the same rates as are specified in the contract for the work.
- (c) If the rates for the altered, additional, or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- (d) If the rates for the altered, additional, or substituted work cannot be determined in the manner specified in sub-clause (b) and (c) above, then the contractor shall, within 10 working days from the date of receipt of the order to carry out the work through notice in writing, inform the Engineer of the rate which it is his intention to charge for such class of work, supported by analysis of the rate claimed which shall be based on actual cost of work plus 10% as contractor's profit and over heads except in case of departmental materials for which contractor's profit and over-heads shall be 2.5%.

When such notice has been given, the Engineer with the consent of the Employer may agree to such a rate but if the Engineer does not agree to the contractor rate the Engineer may cancel his order to carry out such class of work and arrange to carry out in such a manner as he may consider advisable.

- (e) Under no circumstances, the contractor shall suspend the work on the plea of non settlement of rates of items falling under the clause.
- (f) "Deviation limits": - Building work 30%; Maintenance/emergency works 50%; Foundation works 100%; Services Works 30%

11. FAULTY MATERIALS, WORKMANSHIP & DEFECTS AFTER COMPLETION

- (a) The Engineer shall have powers to require the removal from the site of all materials and work which in his opinion are not in accordance with specifications and in case of default, the Engineer shall be at liberty to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials to be substituted thereof and in case of default the Engineer may cause the same to be supplied and all costs which may attend such removal and/or substitution are to be borne by the contractor.
- (b) If it shall appear to the Engineer or to the Employer based on audit/technical examination, that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, any defects, shrinkage or other faults which may appear within the defects liability period of twelve months from the date of completion arising in the opinion of the Engineer, the contractor shall on demand in writing which shall be made within twelve months of the completion of the work from the Engineer specifying the work, materials, articles defects or other faults complained of notwithstanding that the same may have been passed, certified and paid for, forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own cost. In case of any such failure, the Engineer may rectify or remove or re-execute the work or remove and replace with others, the material or articles complained of as the case may be at the risk and cost in all respects of the contractor.
- (c) In lieu of rectifying the work not done in accordance with the contract, the Employer may, allow such work to remain, and in that case make allowance for the difference in value, together with such further reduction as in his opinion may be reasonable.
- (d) Provided always that nothing in this clause shall relieve the contractor from his liability to execute the works in all respects in accordance with the terms and conditions of this contract, or from his liability to make good all defects,

12. WORKS TO BE OPEN FOR INSPECTION

- (a) All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer and the

contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer to visit the works shall have been given to the contractor, either himself be present to receive order and instruction or have a responsible agent duly accredited in Writing present for that purpose.

- (b) The contractor shall give not less than seven days notice in writing to the Engineer before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up and place beyond the reach of measurement, any work without the consent in writing of the Engineer and the Engineer shall within the aforesaid period of seven days inspect the, work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or the Engineer's consent obtained the same shall be uncovered at the contractors expense or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

13. ASSIGNMENT OR SUB-LETTING

- (a) The contract shall not be assigned or sublet without the written approval of the Employer. And if the contractor shall assign or sub-let his contract or attempt to do so or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so or if any bribe, gratuity or gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor or any of his servants or agents to any person in the employment of the Employer in any way relating to his office or employment, or if any such employee or person shall become in any way directly or indirectly interested in the contract, the Employer shall have the power to adopt any of the courses specified under clause 23 as may be best suited to the interest of the Employer and in the event of any of the courses being adopted the consequences specified in the said clause shall ensure.
- (b) Where the contractor is a partnership firm, the approval in writing of the Employer shall be obtained before any changes in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement hereunder the partnership firm would have the right to carry out the work hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned or sublet in contravention of clause 13(a) and the same action may be taken and the same consequences shall ensue as provided in the said clause 13(a).

14. INDEMNIFYING AGAINST DAMAGES TO PERSONS, PROPERTY & STATUTES

The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of work.

- (a) The contractor shall be responsible for all injury to persons, animals or things, and for all damage, whether such injury or damage arises from carelessness or accident in

any way connected therewith. This clause shall be held to include interalia any damage due to causes as aforesaid to work, building (whether immediately adjacent or otherwise) and to roads, streets, footpaths, bridges or ways as well as all damage caused to the buildings and works forming the subject of this contract by inclemency of weather. The contractor indemnifies the Employer and holds him harmless in respect of all expenses arising from such injury or damages as aforesaid and also in respect of any award of compensation or damage consequent upon such claim including legal costs.

- (b) The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contracted works complete and perfect in every respect and so as to make good and otherwise satisfy all claims for damage as aforesaid to the property of third parties.
- (c) The contractor also indemnifies the Employer against all claim which may be made upon the Employer for acts during the currency of this contract by an employee or representative of an employee of the contractor or any sub-contractors, employed by him, for any injury to or loss of life, of such employees, or for compensation payable under any law for the time being in force to any workmen or to the representative, of any deceased or incapacitated workmen.
- (d) The contractor also indemnifies the Employer against all claims which may be made upon the Employer for acts during the currency of this contract by the Central/State Government or local Municipal authorities for the noncompliance of any laws, regulations, rules pertaining to wages act, safety act in force and any amendments thereof in respect of all labour and apprentices directly or indirectly employed in the work under this contract.
- (e) The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation costs, charges and/or expenses arising or accruing from or in respect of any such claim and/ or damages as aforesaid from any sum or sums due or to become due to the contractor or security deposit.
- (f) The contractor shall indemnify the Employer against any action, claim or proceedings relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. . In the event of any claims made under or action brought against the Employer in respect of any such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from. Provided that the contractor shall not be liable to indemnify the Employer if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the said Employer or his authorised representative.

15. LIEN IN RESPECT OF CLAIM IN OTHER CONTRACTS

- (a) Any sum of money due and payable to the contractor including the security deposit under the contract may be, withheld or retained by way of lien by the Employer or Government or any other contracting person or persons against any claim of the

Employer or Government or such other persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Employer or Government or with such other persons.

- (b) It is agreed term of the contract that the sum of money so withheld or retained under this clause by the Employer will be kept withheld or retained as such by the Employer or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the Arbitrator if the contract is governed by arbitration clause or by the competent court as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

16. WITHHOLDING & LIEN IN RESPECT OF SUMS CLAIMED

- (a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Employer shall be entitled to withhold and also have a lien to retain such sums or sums in whole or in part from the security deposit, if any deposited by the contractor and for the purpose aforesaid, the Employer shall be entitled to withhold the security deposit, if any furnished at the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security deposit being insufficient to cover the claimed amount or amounts or if no security deposit has been taken from the contractor, the Employer shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same or any other contract with the Employer or any contracting person pending finalisation or adjudication of any such claim.

It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred above by the Employer will be kept withheld or retained as such by the Employer till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company the Employer shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum payable to any Partner/limited company as the case may be, whether in his individual capacity or otherwise.

- (b) The Employer shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been over paid in respect of any work done by the contractor under the contract or any work claimed by him to have refund the amount of over-payment and it shall be lawful for the Employer to recover the same from him in the manner prescribed in sub-clause(a) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him

under it, the amount of such under-payment shall be duly paid by the Employer to the contractor. Provided that the Employer shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Employer on the one hand and the contractor on the other hand, under any term of contract permitting payment for work after assessment by the Employer.

17. IN-CASE OF DEATH OF CONTRACTOR

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Employer shall have the option of terminating the contract without compensation to the contractor.

18. SUB CONTRACTORS

The Employer reserves the right to use the premises and any portion of the site for the execution of any work not included in the contract. The contractor is to afford all reasonable facilities to all sub-contractors, specialists, merchants, tradesmen and others who may at any time be appointed by the employer for executing any work supplying any goods relating to the constructions; servicing, equipping or furnishing of the work under this contract.

19. COMPLIANCE TO LABOUR LAWS & APPRENTICE ACT

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970, and rules and orders framed there under and other labour laws affecting contract labour and Apprentice Act, 1961 and the rules and orders framed there under that may be in force or brought into force from time to time. Contractor shall obtain a valid licence under Contract Labour (R&A) Act 1970 and Contract Labour (R&A) Central Rules 1971 before commencing, work and which should be valid till the completion.

20. COMPENSATION FOR DELAY

- (a) The time for carrying out the work as Entered in the tender shall be strictly observed by the contractor and shall be deemed to be the essence of the contract on the part of the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the Employer (whose decision in writing shall be final) may decide on the amount of the whole work as shown in the agreement, for every week that the work remains uncommenced or unfinished after the proper dates.

- b) And further to ensure good progress during the execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month (save for special jobs) to complete one-eighth of the whole of the work before one-fourth of the whole time allowed under the contract has elapsed; three-eighths of the work before one-half of such time has elapsed, and three-fourths of the work before three-fourths of such time has elapsed. However for special jobs if a time schedule has been submitted by the contractor and the same has been accepted by the Employer, the contractor shall comply with the said time schedule. In the event of the contractor failing to comply with this conclusion, he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the

Employer be liable to pay as compensation an amount equal to one percent or such smaller amount as the employer whose decision in writing shall be final) may decide on the said cover of the work for every week that the due quantity of work remains incomplete. Provided that the entire compensation to be paid under the provisions of this clause shall not exceed ten percent on the cost of the work as shown in the agreement.

21. DAMAGE TO WORKS IN CONSEQUENCE OF HOSTILITIES OR WAR-LIKE OPERATIONS

- (a) The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Employer and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or war-like operations, the contractor shall, when ordered in writing by the Employer, remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking, removal of serviceable materials and for the reconstruction of all works ordered by the Employer such payment being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged for destroyed but not already measured and paid for the compensation shall be assessed by the Employer. The contractor shall be paid for the damage/ destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provision of this agreement. The certificate of the Employer regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on the contractor.
- (b) Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations (i) unless the contractor had taken all such precautions against Air Raid as are deemed necessary by the A.R.P. Officers or the Employer, (ii) for any materials etc., not on the site of the work or for any tools and plant, machinery, scaffolding, temporary buildings and other things not intended for the work.
- (c) In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Employer.

22. EXTENSION OF TIME

- (a) If the contractor shall desire an extension of time for the completion of the work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Employer within thirty days of the date of hindrance on account of which he desires extension as aforesaid, and the Employer shall, if in his opinion (which shall be final) reasonable grounds shown therefore, authorize such extension of time if any, which may, in his opinion, be necessary or proper.

- (b) In the event, the value of work exceeds the value of the Bill of Quantities owing to variations the contractor shall be entitled to ask for extension of time in proportion to the increased value of work.

23. SUSPENSION OF WORK BY CONTRACTOR

- (a) The Employer may without prejudice to his right against the contractor in respect of any delay or inferior workmanship or otherwise or to any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this contract or otherwise and whether the date for completion has or has not elapsed by notice absolutely determine the contract in any of the following cases:
 - a. If the contractor having been given by the Engineer a notice to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper or unworkman-like manner shall omit to comply with the requirements of such notice for a period of seven days thereafter or if the contractor shall delay or suspend the execution of the work so that in the judgement of the employer (which shall be final and binding) he will be unable to ensure completion of the work by the date for completion or he has already failed to complete the work by that date.
 - b. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court of creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
 - c. If the contractor commits breach of any of the terms and conditions of this contract. If the contractor commits any acts mentioned in Clause-13 hereof.
- (b) When the contractor has made himself liable for action under any of the cases aforesaid, the Employer shall have the following powers:
 - (i) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Employer shall be conclusive evidence). Upon such determination or rescission the security deposit of the contractor shall be liable to be forfeited and shall be absolutely at the disposal of the Employer.
 - (ii) The Engineer may employ labour paid by the Employer and to supply materials to carry out the work or and part of the work debiting the contractor with cost the labour and the price of the materials (of the amount of which cost and price certified by the Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Engineer as to the value of the work done shall be final and conclusive against the contractor, provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Employer are less than the amount payable to the contractor at his agreement rates, the difference should not be paid to the contractor.
 - (iii) After giving notice to the contractor to measure up the work of the contractor and

- to take such part thereof as shall be unexecuted out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which exceed the certificate in writing of the Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money give to him by the Employer under this contract or any other account whatsoever or from his security deposit.
- (iv) In the event of any one or more of the above courses being adopted by the Employer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provisions/aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

24. SECURED ADVANCE

The contractor on signing an indenture in the form specified by the Employer during the progress of the execution of the work may be paid if agreed by the Employer upto 75 percent of the estimated value which shall take into account the market value and contractors tendered rates for the finished item of any material which in the opinion of the Engineer is likely to be incorporated in the work within next three months, are non-perishable and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this clause are incorporated in the work the amount of such advance shall be deducted from the next payment made under any of the clause or clauses of this contract.

25. CERTIFICATES & PAYMENTS

- (a) No payments shall be made for a work estimated to cost Rupees ten thousand or less till the whole of the work shall have been completed and certificate of completion given. But in the case of a work estimated to cost more than Rupees ten thousand, the contractor shall, on submitting the bill be entitled to receive a monthly payment proportionate to the part of the work executed, and to the satisfaction of the Engineer, whose certificate of the sum so payable shall be final and conclusive against the contractor, provided the amount of work done is as per the value of intermediate certificate or for a lesser amount at the discretion of the Engineer as mentioned in the NIT. All such intermediate payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, of any part thereof in any respect or the accruing of any claim nor shall it conclude, determine, or affect in any way the powers of the Employer under these conditions or any of them as to the final settlement and

adjustment of the accounts or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within two months of the date fixed for the completion of work or of the date of the certificate of completion furnished by the Employer and payment shall be made within three months if the value of the completed works is upto Rs.Two lakhs and in six months if the same exceeds Rs.two lakhs of the submission of such bill. If there shall be any dispute about any item or items of the work then the undisputed item or items only shall be paid within the said period of three months or six months as the case may be.

- (b) Whenever there is likely to be delay in recording detailed measurements for making a running payment, advance payment without detailed measurements for work done worked out at 75 percent of the tendered rates for assessed quantities may be made in running account bills by the Employer on the basis of a certificate from the Engineer. The advance payments so allowed shall be adjusted in the subsequent running bills by taking detailed measurements thereof. Final payments shall be made only on the basis of detailed measurements.
- (c) A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer on printed forms obtainable from the Engineer's office. The Engineer shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as far as admissible, adjusted as far as possible, before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid the Engineer may cause action within seven days of the date fixed as aforesaid, an authorized representative to measure up the said work in the presence of the contractor whose signature to the measurement will be sufficient warrant and the Engineer may prepare the bill from such measurements.
- (d) Before taking any measurements of any work the Engineer or his authorised representative deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Engineer then in any such event the measurements taken by the Engineer or by authorized representative deputed by him as the case may be, shall be final and binding on the contractor and the contractor shall have no right to dispute the same.
- (e) The charges in the bills shall always be entered at the rates specified in the agreement or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the agreement at the rate determined as per clause-10. However in case of partially executed items of work, the Employer at his discretion allows proportionate rates for such items of work as determined by the Engineer whose certificate of the sum so payable shall be final and conclusive against the contractor.

26. SECURITY DEPOSIT

- (a) The contractor shall permit the Employer at the time of making any payment to him for the work done and measured to deduct sum at the rate of 10% of the gross value of work done in each running bill along with the Earnest Money if any, as already deposited by the contractor will amount to 10% of the estimated cost or Rs.5.0 lakhs whichever is less, unless full amount of security deposit in cash or in the form of fixed

deposit receipts pledged in favour of the Employer has been deposited.

- (b) In case a fixed deposit receipt of any scheduled bank is furnished by the contractor to the Employer as part of the security deposit and the bank goes into liquidation or for any reason is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Employer to make good the deficit of such sum from the running bill as mentioned above. Such deductions will be held by the Employer by way of security deposit, provided always that the Employer for this purpose shall be entitled to recover the said percentage of the amount from each running bill till the balance of the amount of security deposit is realized. All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from the security deposit or from the interest arising there from or from any sums which may be due to or may become due to the contractor by the Employer on any account whatsoever and in the event of his security deposit being reduced by reason of any such deductions aforesaid, the contractor shall within ten days make good in cash or further fixed deposit receipt pledged in favour of the Employer. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money if deposited at the time of tenders will be treated as part of the security deposit.
- (c) The contractor if he so desires may furnish fixed deposit receipt in advance towards the security deposit. Such fixed deposit receipt shall be of a minimum value of Rs.25000/- each (The last such fixed deposit receipt could be of a lower value on the basis of the amount). In case any recovery is effected from running account bills, such recovered amount shall not be replaced with fixed deposit receipt. It is in the contractor's interest to keep a watch about the adequacy of the fixed deposit receipt submitted.
- (d) No partial refund of security deposit shall be made during defect liability period. In case the final bill is not settled within stipulated period for reasons beyond control and the Employer is satisfied that the security deposit is not required for adjustment of Employers dues or whatsoever dues either in this or any other contract then this security deposit either in full or in part could be refunded at the sole discretion of the Employer. However, release of security deposit would be only after written clearance of Labour Officer regarding no dues or claims is received.
- (e) In case of termination of contract, this security deposit shall be forfeited and amount necessary to make up this amount shall be recovered from money due to the contractor under this contract, or any other contract with the Employer.

27. COMPLETION CERTIFICATE

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Employer and within ten days of the receipt of such notice the Engineer shall inspect the work. If there is no defect in the work the Employer shall furnish the contractor with a certificate of completion otherwise a certificate of completion indicating defects shall be issued but the work shall not be considered to be completed until the contractor shall have removed from the premises on which the work shall be executed all the scaffolding, surplus material, rubbish, and all huts and sanitary arrangements required for his work, people on the site in connection with the

execution of the works as shall have been erected or constructed by the contractor and cleaned of the dirt, splashes, droppings of finishing items from all wood work, doors, windows, walls, floors or other parts of any building, in upon or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof. If the contractor shall fail to comply with requirements of this clause on or before the date fixed for the completion of the work, the Employer may at the risk and cost of the contractor take action as he may think fit and the contractor shall have no claim except for any sum actually realized by the sale thereof.

28. ESCALATION

(a) If the prices of materials not being supplied by the Employer and /or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contractor shall accordingly be varied, subject to the condition that compensation for escalation in prices shall be available only for the work done during the stipulated period of the contract including such period for which the contract is validity extended under the provisions of Clause-22 of General Conditions of contract without levy of compensation under Clause-20 of General Conditions of contract and also subject to the condition that no such compensation shall be payable or a work for which the stipulated period of completion is six months or less. Such compensation for escalation in the prices of materials and labour when due, shall be worked out based on the following provisions.

- (i) The base date for working out such escalation shall be the last date on which the tenders were stipulated to be received.
- (ii) The cost of work on which escalation will be payable shall be reckoned as 85% of the cost of the work as per the bills, running or final, and from this amount the value of material supplied by the Employer and proposed to be recovered in the particular bill shall be deducted before the amount of compensation for escalation is worked out. In case of materials brought to site for which secured advance is included in the bill full value of such materials as assessed by the Engineer in charge (and not the reduced amount for which secured advances has been paid), shall be included in the cost of work done for operation of this clause. Similarly when such materials are incorporated in the work, the secured advance is deducted from the bill full assessed value of the materials originally considered for operation of this clause shall be deducted from the cost of work shown in the bill running or final. Further the cost of work shall not include any work for which payment is made for any item at prevailing market rates.
- (iii) The compensation for escalation for materials & labour shall be worked out as per the formula given below:

$$VM = \frac{WA}{100} \times \frac{(MI-Mio)}{MIO}$$

VM- Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W- Cost of work done worked out as indicated in sub para (ii) above.

A- Component of materials expressed as percent of the total value of work and is predetermined as 75.

MI – Index numbers of Wholesale prices in India for all commodities published by the Reserve Bank of India for the period under reckoning

Mio – Index numbers of wholesale prices in India for all commodities published by the Reserve Bank of India on the date of receipt of tenders.

$$VI = \frac{WB}{100} \times \frac{(LI - Lio)}{Lio}$$

VI. - Variation in labour cost i.e increases or decreases in the amount in rupees to be paid or recovered.

W - Value of work done, worked out as indicated in sub para (ii) above

B- Component of labour expressed as percent of the total value of work and is predetermined as 25.

LI - All India consumer price index numbers for industrial workers published by the Reserve Bank of India for the period under reckoning as for the period under consideration.

Lio - All India consumer price index numbers for industrial workers published by the Reserve Bank of India and valid on the stipulated date of receipt of tenders.

- (b) The following principle shall be followed while working out indices mentioned in sub para(iii) above.
- (i) The compensation for escalation shall be worked out as half yearly intervals and shall be with respect to the cost of work done during the six calendar months of the said work. The first such payment shall be made at the end of the six month after the month (excluding) in which the tender was accepted and thereafter at six monthly interval. At the time of completion of work, the last period for payment might become less than six months, depending on the actual date of completion.
 - (ii) The index (MI or LI) relevant to any six months for which such compensation is paid shall be the arithmetical average of the indices relevant to the six calendar months. If the period upto date of completion after the six months covered by the last such instalment of payment, is less than six months, the index MI or LI shall be the average of the indices for the months falling within that period.
 - (iii) The base index (Mio or Lio) shall be the one relating to the month in which the tender was stipulated to be received.
- (c) In the event the price of materials and/or wages of labour required for execution of the work decreases there shall be downward adjustment of the cost of work so that the price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard formula herein before stated under this clause shall mutates mutandis apply, provided that no such adjustment for the decrease in the prices of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is six months or less.

- (d) as "Employer " shall have the discretion to permit the IEEMA (Indian Electrical & Electronics Manufacturers Association) clause or escalation in case of specialized works e.g lifts and electrical and mechanical installations etc. Where the price variation is not similar to building works.

29. ARBITRATION

- (a) Except where otherwise provided in the contract all questions and disputes relating to the interpretation of the specifications, designs, drawings and instructions herein before mentioned and as to the quality or 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, specifications, estimates, instructions, orders on these conditions or otherwise concerning the works, or the execution of 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 person appointed by the Director-General, Council of Scientific and industrial Research. Any party shall appoint the arbitrator within 30 days from the receipt of a request. The arbitrator to whom the matter is originally referred, being unwilling or unable to act for any reason, the Director-General 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. The arbitrator shall give a speaking award. The award of the Arbitrator shall be final and binding on the parties. The cost of the Arbitrator shall be borne equally by both the parties.
- (b) It is also a term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.
- (c) It is also a term of the contract that if the contractor does not make any demand for arbitration in respect of any claim in writing within 90 days of receiving the intimation from the Employer that the final bill is ready for payment, the claim of the contractor will be deemed to have been waived and absolutely barred and the Employer shall be discharged and released of all liabilities under the contract in respect of these claims.
- (d) Subject as aforesaid the provisions 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 under this clause.

30. DISMANTLED MATERIAL:

The contractor shall treat all materials obtained during dismantling of a structure, services sub systems/installations, excavation of the site for a work etc., as employer's property and such materials shall be disposed off to the best advantage of the Employer according to the instructions issued in writing by the Engineer.

31. PERFORMANCE GUARANTEE:

Performance Guarantee any taken from the contract for before the award of work, by the officer authorized to award the contract, if and where considered necessary to ensure that a part or whole of the contract is completed by the contractor. In case of non-Performance, this guarantee could be encashed.

ADDITIONAL CONDITIONS OF CEMENT AND STEEL

CONDITIONS FOR CEMENT

1. The contractor shall procure 33 grade (conforming to IS: 269) or 43 grade (conforming to IS: 8112) ordinary Portland cement, as required in the work, from reputed manufacturers of cement, having a production – capacity of one million tones per annum or more, such as ACC, L&T, JP Rewa, Vikram, Shri Cement, Birla Jute and Cement Corporation of India etc., as approved by Ministry of Industry, Government of India, and holding, license to use ISI certification mark for their product whose name shall be got approved from the Engineer in charge. Supply of cement shall be taken in 50 Kg. Bags bearing manufacturer's name and ISI marking, samples of cement arranged by the contractor shall be taken by the Engineer in charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS Codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time or written order from the Engineer in charge to do so.
2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer in charge.
3. The cement godown of the capacity to store a minimum of 2000 bags cement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provisions shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer in charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement by the Engineer at any time.
4. The contractor shall supply free of charge the cement required for testing. The cost of tests shall be borne by the contractor.
5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in Clause 6 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in Clause 6 of the contract and shall be governed by conditions laid therein.
6. Cement brought to site and remaining unused after completion of work shall not be removed from site without written permission of the Engineer in charge.

CONDITIONS FOR STEEL

1. The contractor shall procure steel reinforcement bars conforming to relevant BIS codes from main procedures as approved by the Ministry of steel. The contractor shall have to obtain and furnish test certificates to the Engineer in charge in respect of all supplies of steel brought by him to the site of work. Samples shall also be taken and got tested by the Engineer in charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to BIS codes, the same shall stand rejected and shall be removed from the site work by the contractor at his cost within a week's time from written orders from the Engineer in charge to do so.
2. The steel reinforcement shall be brought to the site bulk, supply of 10 tonnes or more as decided by the Engineer in charge.
3. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
4. For checking nominal mass, tensile strength, bend test, re bend test etc, specimen of sufficient length shall be cut from each size of the bar at random at frequency not less than specified below:

<u>Size of bar</u>	<u>For consignment below 100 tonnes</u>	<u>For consignment over 100 tonnes</u>
Under 10 mm dia	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

5. The contractor shall supply free of charge the steel required for testing. The cost of tests shall be borne by the contractor.
6. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in Clause 6 of the contract. The theoretical consumption of steel shall be worked out as per procedure in Clause 6 of the contract and shall be governed by conditions laid therein.
7. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer in charge.

CONTRACTOR'S SITE SUPERINTENDENCE

Staff to be employed by the contractor on works:

The contractor shall employ the following technical staff during execution of works:

(a) For Building and Road works

- (i) One Graduate Engineer, when the tendered cost of work exceeds Rs.10 lakhs.
- (ii) One qualified Diploma holder (Overseer) with experience not less than 3 years when the tendered cost of work exceeds Rs. 5 Lakhs but is less than Rs.10 Lakhs
- (iii) One qualified Diploma holder when tendered cost of work is more than Rs.2 lakhs but less than Rs.5 lakhs

(b) For Sanitary and Water Supply works

- (i) One qualified Diploma holder with experience of not less than 5 years, out of which one year should be in sanitary and water supply works when the tendered cost of work is more than Rs. 50,000/-

(c) For Electrical works

- (i) One qualified Graduate Engineer possessing Degree in Electrical Engineering from recognized University with an experience of not less than 3 years or a Diploma holder in Electrical Engineering with in experience of not less than 7 years when the tendered cost of the work is not less than Rs.1.5lakhs.
- (ii) One Graduate Electrical Engineer with two Years experience or a Diploma holder in Electrical Engineering with experience of not less than 3 years, when the tendered cost of the work is more than Rs.75,000/- but less than Rs.1.5lakhs
- (iii) One Diploma holder in Electrical Engineering with experience of not less than 3 years when tendered cost of work is more than Rs.37,000/- but less than Rs.75,000/-
- (iv) One licensed Supervisor with experience of not less than 3 years when the tendered cost of work is more than Rs.7,500/- and less than Rs.37,000/-
- (v) In case the contractor fails to employ the technical staff as aforesaid, he shall be liable to pay reasonable amount not exceeding the amount shown below for each month of default. These recoveries are subject to modifications from time to time by CSIR based on CPWD
 - (i) In case when a Graduate Engineer is to be employed Rs.3000/-
 - (ii) In case when a qualified Diploma holder is required to be employed Rs.1500/-
 - (iii) In case when a technical supervisor is required to be employed Rs.750/-

SPECIAL CONDITIONS

1. These special conditions are meant to amplify the general specifications and general conditions of contract.
2. Work shall be done as per CPWD specification. In case of any discrepancy, the order of precedence in interpretation shall be as under.
 - i) Schedule of quantities
 - ii) Drawings
 - iii) Additional conditions
 - iv) General Conditions of contract
 - v) Special condition
 - vi) Additional Technical Specifications
 - vii) CPWD latest Civil & Electrical specifications
 - viii) IS codes
 - ix) International codes
 - x) Best Engineering practice.

ADDITIONAL CONDITIONS

1. The structural and architectural drawings shall at all times be properly correlated before executing any work. However, in case of any discrepancy in the item given in the Schedule of quantities appended with the tender and drawings relating to the relevant item the former shall prevail unless and otherwise given in writing by the Engineer.
2. No payment shall be made to the contractor for any damage caused by rain, snowfall, floods or any other natural cause whatsoever during the execution of work. The damage to work will be made good by the contractor at his own cost, and no claim on this account shall be entertained.
3. All materials used shall be as per specifications and ISI marked wherever applicable. ISI marking referred relate to latest BIS code as published by Bureau of Indian Standards upto 30 days before the date of opening the tender.
4. The Contractor shall give a performance test of the entire installation(s) as per standard specifications and/or as directed by the Engineer and will also submit test certificates as are required by Municipal/ Electrical authority or any other authority. Nothing extra shall be payable for the same other than the fees paid to such authorities which shall be reimbursed on production of receipts.

Annexure A

S. No.	Page	Condition of Contract for works in CSIR	Amended Provision
1.	Page 2 para 17 (c)	Security deposit shall be deducted from the running bills at 10% of the gross value of the work done and measured inclusive of Earnest Money subject to a maximum of Rs.5.00 lakhs (Rupees five lakhs only).	A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security within the period prescribed for commencement of work in the letter of award issued to him.
2.	Page 15 para 26 (a)	Security deposit: The contractor shall permit the Employer at the time of making any payment to him for the work done and measured to deduct sum at the rate of 10% of the gross value of work done in each running bill along with the earnest Money if any, as already deposited by the contractor will amount to 10% of the estimated cost or Rs.5.00 lakhs whichever is less, unless full amount of security deposit in cash or in the form of fixed deposit receipts pledged in favour of the Employer has been deposited.	As per 1 above
3.	Page 16 para 28 (a)	Escalation: If the price of materials not being supplied by the employer and/or wages of labour required for execution of the work increase, the	Escalation: If the prices of materials not being supplied by the Employer and/or wages of labour required for execution of the work increase, the contractor shall be

		<p>contractor shall be compensated for such increase as per provision detailed below and the amount of the contractor shall accordingly be varied, subject to the condition that compensation for escalation in prices shall be available only for the work done during the stipulated period of the contract including such period for which the contract is validly extended under the provision of clause 22 of General Conditions of Contract without levy of compensation under Clause 20 of General Conditions of Contract and also subject to the condition that no such compensation shall be payable for a work for which the stipulated period of completion is six months or less such compensation for escalation in the prices of materials and labour when due, shall be worked out based on the provision.</p>	<p>compensated for such increase as per provision detailed below and the amount of the contractor shall accordingly be varied, subject to the condition that compensation for escalation in prices shall be available only for the work done during the stipulated period of the contract including such period for which the contract, is validly extended under the provision of clause 22 of General conditions of the Contract without levy of compensation under Clause 20 of General conditions of Contract and also subject to the condition that no such compensation shall be payable for a work for which the stipulated period of completion is eighteen months or less. Such compensation for escalation in the prices of materials and labour when due, shall be worked out based on the provision.</p>
4.	Page 3 New Para 20	Not existing	<p>Purchase preference will be given to Central Public Sector Enterprise (CPSE) for award of works costing between Rs.5 crores to Rs.100 crores as per provisions contained in para 20.10.9 in CPWD Manual 2003 and OM NO.DPE/13(12)/2003-Fin. Vol.II dated 18.07.05 issued by Department of Public Sector Enterprises, Govt. of India.</p>

List of Mandatory Tests on Building Materials

Note: Testing procedures shall be as specified in CPWD specification/relevant IS codes

Sl. No.	Material	Nature of Test	Where Field / Lab	Minimum qty. in material/ work for carrying out the test	Frequency of Testing
1	2	3	4	5	6
1.	Lime	Chemical and physical properties of lime	Lab IS: 6932	5 tonnes	10 tonnes or part thereof as may be required by Architect
2.	Sand	a) Silt content	Field	20 cum	Every 20 cum or part thereof or more frequently as decided by the Architect
		b) Bulking of sand	Field	20 cum	Every 20 cum or part thereof or more frequently as decided by the Architect
		c) Particle size distribution	Field or Lab decided by the Architect	40 cum	Every 40 cum
3.	Stonne Aggregate	Percentage of soft or deleterious materials	Generally visual inspection: Lab test (IS: 2386) where required by the Architect or if so specified		As may be required by the Architect
4.	Water for Construction purposes	a) Chemical & Physical properties	Water from each source		Before commencement of work and thereafter every three months till completion of work

		b) Particle size distribution	Field or Lab as may be required by the Architect	45 cum	For every 45 cum or part thereof of RCC work only. For rest of the items as may be decided by Architect/Engineer
5.	CC (not leaner than 1:3:6)	Slump test	Field		Once a day
6.	RCC	Cube Strength	Lab	5 cum in columns In other items 20 cum	Every 5 cum in columns In other items every 20 cum of a day's concretion
Note: For all other small RCC items and where RCC done in a day is less than 5 cum test may be carried out as required by the Architect					
7.	Bricks	Testing of Bricks of a) Dimension	Lab	Brick designation: 100 50,000	For every 50,000 bricks of part thereof subject to change of brand of bricks
8.	Bricks	Testing of Bricks for a) Dimensions	Lab	Brick designation: 75 50-100,000 35	For every 1,00,000 bricks or part thereof subject to change of brand of bricks
9.	Bricks	Testing of Bricks a) Compressive strength	Lab	Brick designation: 100 – 50,000	For every 50,000 bricks or part thereof subject to change of brand of bricks
				For designation: 75 50 – 100,000 35	Two tests for first lot of 1,00,000 bricks and one test for every subsequent 2,00,000 bricks
		b) Water absorption and Efflorescence	Lab	100-50,000 75 50 – 100,000 35	One test per source of materials

10.	Brick tiles	Testing of Brick tiles a) Compressive strength	Lab	50,000	For every 50,000 bricks or part thereof
		b) Water absorption			
		c) Dimensions			
		d) Efflorescence	Lab	50,000	One test per source of manufacture
11.	Marble	a) Moisture absorption b) Mohs scale hardness test	Lab IS 1124	Cost of marble work Rs.10,000 or 50 sqm	Cost Rs.10,000 or 50 sqm or part thereof by the Architect
12.	Timber	Moisture content	Field by moisture meter, Lab test in case of dispute as acquired by architect	1 cum	Every 1 cum or part thereof
13.	Flush door	i) End immersion test ii) Knife test iii) Adhesion	Lab IS 2202 and IS 4020	25 shutters	As per IS Code
14.	Al door or window fittings	Thickness of anodic coating	Lab IS 5523	If the cost of fittings exceeds Rs.5,000/-	Rs.5,000 or part thereof if required by the Architect
15.	Mortice locks	Testing of springs	Lab	50 Nos.	100 and beyond, one for each 100 locks
16.	Steel (if arranged by the contractor)	a) Tensile strength b) Bend test	Lab IS 1599	20 tonnes	Every 20 tonnes or part thereof
17.	Terrazo tiles	1. Transverse strength 2. Water absorption 3. Abrasion test	Lab IS 1237	2000 tiles	2000 tiles or part thereof
18.	White glazed tiles	1. Water absorption 2. Crazeing test 3. Impact strength test	Lab IS 777	3000 nos	3000 nos or part thereof
* Plus other material tests as required by CPWD					

