

GENERAL TERMS AND CONDITIONS

1. RATES:

All quoted rates shall be inclusive of all taxes, GST / IGST (state & central), works contract tax, duties, octroi, excise duty, levies, wages as per the minimum wages Act etc. The rates shall be firm for the duration of this contract plus authorised extension period of 1 year minimum. The rate shall take care of all insurance premiums as per insurance clause 20 and any P.F. / ESIS or workmen compensation.

If for the same item appearing in different sections, quoted rates vary, then the lowest quoted rate in such case will be treated as valid and will be applicable.

2. INTERPRETATION:

In addition to the Definitions mentioned in the Articles of Agreement, in construing the General and Special Conditions of the Contract, Specifications, Schedule of Quantities and Contract Agreement, the following terms shall have the meanings assigned to them in this Clause unless the subject or context otherwise requires:

(a) Employer's Representative i.e. "**Site Engineer**" shall mean any Engineer appointed by the Employer as per advice of the PMC / Architect / HVAC Consultant, and who shall perform the duties henceforth as per clause 11 or shall mean any such person(s) so designated by the Employer.

The Site Engineer will issue clarifications requested by Contractors on working drawings, as also instructions and decisions directly at site, or after consulting the PMC / HVAC Consultant / Architect or the Employer, as the case may be, at site. The Site Engineer shall also record measurements.

(b) "**Final Acceptance**" shall mean the acceptance by the purchaser of the Works in accordance with conditions of Contract & the issue of a Final Acceptance Certificate issued by Employer as per the Final Inspection carried out by the HVAC Consultant and the Architect.

(c) "**Sub-Contractor**" as employed herein includes only those having a direct contract with the contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.

3. EXECUTION, CORELATION AND INTENT OF DOCUMENTS:

The various parts of the Contract are intended to be complementary to one another; but should any discrepancy appear, or any misunderstanding arise as to the import of anything contained therein, the explanations of the Consultant shall be final and binding.

All references to drawings, Technical specifications, materials, and work description or trade shall be interpreted in accordance with their recognised standards and meanings and in case of any differences in this regard between the Contractor & the Employer, interpretation accepted by the HVAC Consultant shall be treated as final.

The correction of any errors or omissions of the Drawings and specifications may be made by the HVAC Consultant, when such correction is necessary to bring out clearly the intention, which is indicated by a reasonable interpretation of the drawings & Specifications as a whole.

4. SCOPE OF CONTRACT:

4.1 The work includes design, supply, fabrication, erection, testing and commissioning of the complete HVAC Chiller Relocation works as described in the schedule of quantities (BOQ). The Contractor shall carry out and complete the works in every respect. The HVAC Consultant /

Architect / PMC / Employer may issue further drawings and/or written instructions in their absolute discretion and from time-to-time further drawings and/or written instructions, details, directions and explanations which are hereafter collectively referred to as “**Instructions**” reflected either in the minutes or in any other form.

The employer reserves the right to amend or change the conditions governing the responsibilities or work to be undertaken. All amendments and/or changes, as mentioned below, to be incorporated to the terms of the Contract shall be properly made by duly constituted and authorised representatives of the parties herein, and the Contract together with such amendments and/or changes, shall be deemed to have full force and effect.

The following shall not mean a change in and/or amendment to the Contract:

- (i) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- (ii) Any discrepancy in or divergence between the Drawings or between the Schedule of quantities and/or drawings and/or specifications.
- (iii) The removal from the site of any material brought thereon by the Contractor and the substitutions of any other materials thereof.
- (iv) The removal and/or re-execution of any works executed by the Contractor.
- (v) The postponement of any work to be executed under the provisions of this Contract.
- (vi) The dismissal from the works of any person employed there upon.
- (vii) The openings up for inspection of any work covered up.
- (viii) The amending and making good of any defects.

The Contractor shall forthwith comply with and duly execute any work comprised as such by the HVAC Consultants' / Architects' / PMC / Employer' instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the HVAC Consultants / Architect / Employer shall, if involving a variation, be confirmed in writing by the Contractor within 7 days, and if not dissented from in writing within a further 7 days by the HVAC Consultant / Architect / Employer such shall be deemed to be the HVAC Consultants' / Architects' / Employer' instructions within the scope of the contract.

If Compliance with the HVAC Consultants' / Architects' / PMC / Employer' instructions involves any variation, such variation such shall be dealt with under the relevant Clause.

The contractor shall carry out and complete the works in every respect in accordance with this contract and in accordance with the directions and to satisfaction of the HVAC Consultant / Architect / Employer.

HVAC Consultant / Site Engineer may at his discretion from time-to-time issue further drawings and / or written instructions details, explanation which are herein after referred to as “HVAC Consultants' instructions” in regard to:

1. The variation or modification of design, quality or quantity of works or omission or substitution of any work.
2. Timing or sequencing of work.
3. Any discrepancy between drawing and / or bill of quantities and / or specification.
4. Removal of any material from site brought by contractor and the substitution of any other material thereof.
5. Execution of any additional work necessary for completion of work.
6. Removal and re-execution of any work executed by the contractor.

7. Opening of any covered work for inspection.
8. Changes in lines, levels, position and dimensions of any part of work.

The Contractor shall forthwith comply with and duly execute any work comprised in such HVAC Consultants instructions provided always that verbal instructions, given to contractor if involves variation from tender specification / BOQ be confirmed by contractor in writing, with in seven days from date of instruction & HVAC Consultants/Architects'/PMC / Employer ' written approval to be obtained.

If compliance with HVAC Consultant/Architect's instruction as aforesaid involves work beyond that covered or contemplated by the contract, unless same were issued owing to reasons attributable to breach of contract by contractor, owner shall pay to contractor the prices of said work as an extra to be valued and as hereafter provided.

No such variation shall in any way vitiate or invalidate the contract including the completion date. However, all such variations shall be taken into account in ascertaining the amount of final certification.

All extra or additional work done under instructions of HVAC Consultant / Architect / Employer shall be derived from the rates and prices set out in the contract. If in the opinion of the HVAC Consultant any rate cannot be derived from the contract, prices / rates shall be worked out as under:

- a. Direct cost of labour, proof of wages as per wage register.
- b. Material cost inclusive of taxes, levies, fees & duties etc as delivered to site, proof of cost in the form of invoice to be submitted along with the extra claim.
- c. In addition to above contractor would be entitled to payment towards operational costs of plant and equipment, overheads and profit. This shall be deemed to be 15% of (b) + (a) above.

In all above cases contractor shall furnish detailed rate analysis along with necessary supporting documents to HVAC Consultant. On establishing validity of such claims HVAC Consultant would certify the amount payable to contractor and rates so determined by HVAC Consultant/Architect shall be final and binding on the contractor.

The rates quoted by the contractor in the BOQ shall be firm irrespective of any variation in quantities of individual items of work and / or in the total contract sum.

The contractor shall be bound to carry out any items of works necessary for completion of his work even though such items may not be part of his offer, such work shall be instructed by HVAC Consultant / Architect and paid as detailed above or elsewhere in the contract.

If the Contractor fails to comply with the HVAC Consultants / Architects / PMC / Employers instructions within a fortnight after the written notice from the HVAC Consultants / Architects / Employer requiring compliance with such instructions, the Employer through the HVAC Consultant / Architects may employ some other agency to execute any work whatsoever which may be necessary to give effect to such instructions.

4.2 Items Included In The Contract:

- a. Entire equipment under supply as mentioned in the specification and shown in the drawings including installation, painting (as per the colour code to be specified by the Consultant), trial commissioning, final adjustments and testing.

- b. Complete electrical work for the HVAC Units including equipment control wiring, control panels etc. as specified. Employer shall make power upto each Elec. panel.
- c. Operation of system until the time the system is handed over.
- d. As built drawings.
- e. Permissions required from local agencies if any pertaining to HVAC system.

5. DRAWINGS AND SPECIFICATIONS:

The work shall be carried out to the entire satisfaction of the Employer, the Architect and the HVAC Consultant in accordance with the signed drawings and specifications and such further drawings and details as may be provided by the HVAC Consultants and in accordance with such written instructions, directions and explanations as may from time to time be given by the Architect / HVAC Consultant whose decisions as to sufficiency and quality of the work and materials shall be final and binding upon all parties.

If the work shown on any such further drawings or work that may be necessary to comply with any such instructions, directions and explanations be in the opinion of the Contractor extra to that comprised in or reasonably to be inferred from the Contract, he shall before proceeding with such work, give notice in writing to this effect to the HVAC Consultant / Architect / Employer and upon their agreeing to the same in writing, the Contractor shall be entitled to an allowance in respect of such extra work as an authorised extra.

If the HVAC Consultant and the Contractor fail to agree as to whether or not there is any extra and if so the amount thereof, shall failing agreement, be settled by the Architect, but this in no way shall delay the fulfilment of this Contract.

No drawings shall be taken in itself an order for variation unless, in addition to the HVAC Consultant / Architects Signature, it bears express works stating remark "**APPROVED DRAWING**".

No claim for payment for extra work shall be allowed unless the said work shall have been executed under the provisions of clause 8 (Authorities, Notices, Patent, Rights and Royalties) or by the authorities, directions in writing of the Architect / Consultant as herein mentioned.

One complete set of the signed Drawings and Specifications and Schedule of Quantities shall be furnished by the HVAC Consultant.

The HVAC Consultant shall furnish, within such time, as he may consider reasonable, one copy of additional drawings, which in his opinion be necessary for the execution of the work.

Such copies shall be kept on the works, and the Consultant or his representatives shall at all reasonable times have access to the same. The Contractor before the issue of the Final Certificate shall return all drawings and specifications to the Consultant / Architect. A copy of the Contract shall remain in the custody of the Consultant and shall be produced by him at his office as and when required by the Employer or by the Contractor.

The HVAC Consultant may supply any additional prints or drawings if any required by the Contractor. First three copies shall be at no extra cost, however any additional prints of drawings, if any required by the Contractor may be supplied by the Consultant but on the payment of charges as below:

A0 – Size	Rs. 190.00 each
A1 – Size	Rs. 150.00 each
A2 – Size	Rs. 120.00 each
A3 – Size	Rs. 70.00 each
A4 – Size	Rs. 50.00 each

5.1 OWNERSHIP OF DRAWINGS:

All drawings, specifications and copies thereof furnished by the HVAC Consultant are property of Employer. **They are not to be used on other work and, with the exception of the signed contract set, are to be returned to the Employer, on request, at the completion of the work.**

6. CONTRACTORS' SCHEDULE OF QUANTITIES:

The Schedule of Quantities, as attached by the Contractor, unless otherwise stated, shall be deemed to have been prepared in accordance with the standard procedure of the tender and the HVAC Consultant and without any modifications except as specifically deviated.

6.1 SUFFICIENCY OF SCHEDULE OF QUANTITIES:

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and the Schedule of Rates and Prices. These rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the proper completion of the above works as provided for in clauses 1, 2 & 7.

6.2 ERRORS IN SCHEDULE OF QUANTITIES:

Should any error appear in the Schedule of Quantities, other than in the Contractor's prices and calculations, it shall be rectified, and such rectification shall not vitiate the Contract but shall constitute a variation of the Contract and shall be dealt with as an authorised extra or deduction.

The quantities shall be considered to be approximate, based on the present status of the Drawings, and no liability shall attach to the HVAC Consultant for any error that may be discovered therein.

7. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY:

The contractor shall provide everything necessary for the proper execution of the works according to the true intent and meaning of the Drawings, Specifications and Schedule of Quantities taken together whether the same may or may not be particularly shown or described therein, provided that the same can be inferred there from. If the Contractor finds any discrepancy in the Drawings or between the Drawings, Specifications and Schedule of quantities he shall immediately refer the same in writing to the HVAC Consultant, who shall decide which shall be followed, and his decision shall be final and binding on all parties.

The Contractor shall provide and maintain all measuring and surveying instruments, including steel tape, spirit level, at all times for property carrying out the work and for the use of the HVAC Consultant / Architect / Employer, including skill attendants as required. The Contractor will also arrange during the testing instruments like, Anemometer, Psychrometer, Tachometer, Flow meter, Noise / Sound meter, Particle counter, Dry & wet bulb thermometer.

The Contractor shall supply, fix and maintain at his cost during the execution of any works, all the necessary scaffolding, staging, pumping, fencing, hoarding, watching and lighting by night as well as by day. The Contractor shall take down and remove any or all such scaffolding, staging etc. as occasion shall require or when ordered to do so, and shall fully reinstate and make good all matters and things described during the execution of the works, to the satisfaction of the Consultant.

8. AUTHORITIES, NOTICES, PENALTIES, RIGHTS & ROYALTIES:

The Contractor shall conform to the provisions of the status relating to the works and to the Regulations and bye-laws of any local Authority, and of any water, Electricity or other Companies or Authorities, He shall before making any variation from the drawings or specifications, that may be necessitated, by so confirming, give to the HVAC Consultant / Architect / Employer written notice,

specifying the variations proposed to be made and the reason for making it, and apply for instruction thereon, in case the Contractor shall not within 10 days receive such instructions, he shall proceed with the work conforming with the provision of Regulations or Bye-laws in question.

The Contractor shall bring to the attention of the HVAC Consultant all notices required by the said Acts, Regulations or Bye-laws to be given to any Authority by the Employer or the Consulting Engineer and pay to such Authority, or to any public Officer, all fees that may be properly chargeable in respect of the works, and lodge the receipts with the Consultant/Architect/ Employer.

The Contractor shall indemnify the Employer against all claims and defend all suits for infringement and / or passing off, of rights in respect of patent rights, design, trade marks of name or other protected rights in respect of any constructional plant, machine work or material used for or in connection with the works or temporary works and from against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

The Contractor shall defend all actions arising from such claims, unless he has informed the Consultants before any such infringement and received their permission to proceed, and shall himself pay all royalties, license fees damages, costs and charges of all and every sort that may be legally incurred in respect thereof.

8.1 SURVERY PERMITS AND REGULATIONS:

The contractor shall give all notices and comply with all laws, ordinances, rules and regulations, bearing on the conduct of the work as drawn and specified. If the contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the HVAC Consultant, Architect or the Employer in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the work.

If the contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulation, and without such notice to the HVAC Consultant he shall bear all costs arising there from.

9. MATERIALS AND WORKMANSHIP TO CONFORM TO DESCRIPTION:

All materials and workmanship shall, so far as procurable, be of the respective kinds specified in the Schedule of Quantities and/or specifications and in accordance with the Consultants instructions and the Contractor shall upon the request of the Consultant furnish to them all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith.

The Contractor shall at his own cost arrange for inspection of the units at manufacturer's factory and/or carry out any test of any materials / equipment, which the Consultant may require to witness. The contractor shall give an advance notice of 1-week prior to the HVAC Consultant before arranging such visit.

If the Contractor contends that any of the materials, goods of workmanship specified as aforesaid, is unobtainable, he shall submit to the Employer, his grounds for his contention, and thereupon the Consultant shall decide whether the same is unobtainable in fact.

If the Consultant shall decide that any of the materials, goods or workmanship is in fact unobtainable, he shall issue an order in writing as to the substituted item and such order shall be deemed to be an order of variation.

Unless otherwise stipulated, the contractor shall provide and pay for all materials, labour, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work. The Contractor shall install his own meter for measuring power consumed.

All materials shall be new and both workmanship and materials shall be of good quality. The contractor shall, if required furnish satisfactory evidence as to the kind and quality of materials.

If the materials or workmanship fail to comply with the requirements of the Contract, the Contractor shall forthwith '**at his own cost**' re-execute or make good the defective materials and/or faulty workmanship to ensure compliance with the Contract.

10. ERECTION & EXECUTION:

10.1 THE SETTING OUT:

The Contractor shall at his own expense, set out the works accurately in accordance with the plans. The Contractor shall be solely responsible for the true and perfect setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts thereof.

If at any time any errors shall appear during the progress or on completion of any part of the work, the Contractor shall at his own cost rectify such error if called upon to the satisfaction of the HVAC Consultant.

The Consultant and / or his representatives shall from time to time inspect the work but such inspections shall not exonerate the Contractor in any way from his obligations to remedy any defects, which may be found to exist at any stage of the work or after the same is completed.

10.2 REMOVAL OF ALL OFFENSIVE MATTERS:

All temporary structure, debris, insulation bitumen, fibreglass, EPS wastage, packing material, MS items, welding excess, ducting scrap or other matter of an offensive nature taken out of the site, shall not be deposited on the surface, but shall be at once carried away by the Contractor to some pits or place provided by him and shall be disposed off as per the rules and regulations of the Local Authorities concerned.

10.3 OPENING UP WORKS:

The Contractor shall notify the Architect / HVAC Consultant in writing immediately when the erection shown on drawings are got ready or as soon as any work is cut into, which from unexpected causes, appears to need immediate attention. After notifying the HVAC Consultants he shall await instructions, which shall be given within seven days of receipt of such notice.

If the Contractor puts in any material of the Air-conditioning system before he has so notified the Consultant and received instructions, he shall be liable to reinstate all work that may subsequently be, at any time, damaged on account of any defect in or insufficiency of the system.

The Contractor refuses or neglects to comply with such requests, the Employer through the Consultant, may employ the other workmen to open up the same. If the said work has been covered up in contravention of the Consultants instructions, or if on being opened up, it be found not in accordance with the drawings, and Specifications, or the instructions of the Consultant, the expenses of dismantling and erecting it up again, whether done by the Contractor or such other workmen shall be borne by and recoverable from the Contractor, or may be deducted from any money due or which may become due to the Contractor.

If the work has not been covered up in contravention of such instructions, and be found in accordance with the said drawing and Specifications or instructions, then the expenses aforesaid shall be borne by the Employer and be added to the Contract sum, provided always that in the case of insulation, or of any other work so opened up and requiring immediate attention, the Consultant shall within seven days after the written notice from the Contractor that the work has been opened, make or cause the inspection thereof to be made, and the expiration of such time, if such

inspection shall not have been made the Contractor may cover up the same, and shall not be required to open it up again, except at the expense of the Employer.

10.4 CONTRACTOR'S SUPERINTENDENCE AND REPRESENTATIVE ON WORKS:

The Contractor shall give all necessary personal superintendence during the execution of works and as long thereafter as the HVAC Consultants may consider it necessary until the expiration of the Guarantee period and the Defects Liability Period stated in the relevant **Clause 19.10 and Clause 36**. The Contractor shall meet the HVAC Consultant or his representative whenever required if so informed by the Employer / Architect.

The Contractor shall maintain and be represented on site, at all times while the work is in progress, by a responsible and efficient Engineer / Supervisor, approved by the Consultant and who must thoroughly understand all the trades entailed and be constantly in attendance, while the men are at work. This Engineer shall give his whole time to the superintendence of the work. Any directions, explanations instructions or notices given by the Consultants to such Engineer shall be deemed to be given to the Contractor and shall be binding as such on the Contractor.

10.4.1 DISMISSAL OF WORKMAN:

The Contractor shall on the request of the Consultant immediately dismiss from the works any person Employed thereon, who may, in the opinion of the HVAC Consultant, be unsuitable or incompetent or who may misconduct himself and such person shall not again be employed or allowed on the works without the permission of the Consultant. The Contractor shall promptly depute other competent workman in equal number to the satisfaction of Consultant.

10.5 ACCESS TO WORKS:

The HVAC Consultants, the Architects and the Employer and any person authorised by them shall at all reasonable times have free access to the works, and to the workshops, Factories or other places where 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. The Contractor shall give every facility to the Consultant and Architect or their representative for inspection and examination and test of the materials and workmanship. No person unless authorized by the Consultant or the Employer, except the Representatives of public Authorities, shall be allowed on the works at such time. If any work is to be done at a place other than the site of the works, the Contractor shall obtain the written permission of the Consultant for doing so.

The employer and any person(s) authorized by them shall at all times have access to the works, and at agreed times access to all workshops and places where work is being done or undertaken, prepared or where materials, manufactured articles are being obtained for the works. The Contractor shall afford every facility for access to any place where work is being undertaken under this Contract and shall give every assistance in obtaining the right for such access in connection with the execution of the Work under this Contract.

10.6 INSPECTION OF WORK:

The Consultant, Architect and the Employer and their representatives shall at all times have access to the work wherever it is in preparation or progress and the contractor shall provide proper facilities for such access and for inspection.

If the specifications, the Consultant's instructions, laws, ordinances or any public authority require any work to be specially tested or approved, the contractor shall give the Consultant timely notice of its readiness for inspection. If the inspection is by another authority, than the Consultant, the date fixed for such inspection as mutually agreed. Inspections by the Consultant shall be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or

consent of the Consultant, it must, if required by the Consultant, be uncovered for examination at the contractor's expense.

Re-examination of questioned work may be ordered by the Consultant and if so ordered the work must be uncovered by the contractor. If such work were found in accordance with the contract documents the owner shall pay the cost of re-examination and replacement. If such work were found not in accordance with the contract documents the contractor shall pay such cost, unless he shall show that another contractor caused the defect in the work, and in that event the owner shall pay such cost.

10.7 UNFIXED MATERIAL:

When any materials intended for the works shall have been placed at site by the Contractor, such materials shall not be removed there from (except for the purpose of being used on the works) without the written authority of the Consultant and when the Contractor shall have received payment in respect of any Certificate in which the Consultant shall have stated that he has taken into account the value of such unfixed materials on the works, such materials shall become the property of the Employer. This material shall be handed over to the Employer and the Contractor shall be liable for any loss or damage to any such materials.

10.8 REMOVAL OF IMPROPER WORK AND MATERIALS:

The Consultant shall, during the progress of the works, have power to order in writing from time to time the removal from the works, within such reasonable time as may be specified in the order, of any materials which, in the opinion of the Consultant are not in accordance with the specifications or the instructions of the Consultant are not in accordance with the specifications or the instructions of the Consultant and the substitution of proper materials and the removal and proper re-execution of any work, which has been executed with materials or workmanship, not in accordance with the Drawings and Specifications or instructions, and the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order the Employer shall have power to employ and pay other persons to carry out the same and all expenses consequent there on or incidental thereto shall be borne by the Contractor, and shall be recoverable from hi on behalf of the Employer or may be deducted by the Consultant any money due or that may become due to the Contractor.

In lieu of correcting work not done in accordance with the contract, the Consultant may allow such work to remain, and in that case may make allowance for the difference in value together with such further allowance for damages to the Employer, as in his opinion may be reasonable.

10.9 OTHER PERSONS ENGAGED BY THE EMPLOYER:

The Employer reserves the right to use the premises and any portion of the site for the execution of any wok not included in this Contract which he may desire to have carried out by other persons, and the Contractor is to allow all reasonable facilities for the execution of such work, but is not required to provide any system or material for he execution of such work, except by special arrangement with the Employer.

Such work shall be carried out in such a manner as not to impede the progress of the works included in the Contract, and the Contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

11. EMPLOYER'S REPRESENTATIVE:

The Employer may appoint a "**Site Engineer**" who shall be the representative of the Employer, selected on the advice of the Architect / PMC / HVAC Consultant.

The duties of the Employer's representative are to watch and supervise the works and to test any materials to be used or workmanship employed in connection with the works. He shall have no authority either to relieve the Contractor of any of his duties or obligations under the Contract or, except those expressly provided hereunder, to order any work involving delay or any extra payment by the Employer or any variation of or in the works.

The Contractor shall afford the Site Engineer every facility and assistance for examining the works and materials and checking and measuring time and materials. The Employer's representative shall have no power to revoke, alter, enlarge, or relax any requirements of this Contract, or to sanction any rates for extra work, additions, alterations, deviations or omissions unless such an authority may be specially conferred by a written order of the Employer.

The "Site Engineer" shall act in consultation with the Consultant in regard to the quality of all erection aspects of the work. The "Site Engineer" will take instructions from the Architects on co-ordination and finishing materials. The "Site Engineer" shall jointly record the measurements with Contractor's representative for all items of works and on completion hand over the records to the Employer.

The Site Engineer shall have the power to give notice to the Contractor or his Engineer about the non-approval of any work or materials and such works shall be suspended or the use of such materials should be discontinued until the decision of the Consultant is obtained. The work will from time to time be visited by the Consultant but such examination shall not in any way exonerate the Employer's representative or the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the work or after the same is completed.

12. ASSIGNMENTS OR SUB-LETTING:

The work included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part share thereof or interest therein, nor shall he take a new partner, without the written consent of the Consultant and no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.

The contractor agrees that he is fully responsible to the owner for the acts and omissions of his sub-contractor and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

12.1 RELATIONS OF CONTRACTOR AND SUB-CONTRACTOR:

The contractor agrees to bind every sub-contractor & every sub-contractor agrees to be bound by the terms of the agreement, the general conditions, the drawings & specifications as far as applicable to his work, including the following provisions of this Article unless specifically noted to the contrary in a sub-contract approved in writing as adequate by the owner or Architect or HVAC Consultant. This does not apply to minor sub-contracts.

The sub-contractor agrees:

- (a) To be bound to the contractor by the terms of the agreement, general conditions, drawings & specifications, and to assume toward him all the obligations and responsibilities that he, by those documents, assumes towards the owner.
- (b) To submit to the contractor applications for payment in such reasonable time as to enable the contractor to apply for payment under Articles of the general conditions.
- (c) To make all claims for extras, for extensions of time & for damages for delays or otherwise, to the contractor in the manner provided in the general conditions for like claims by the contractor upon the owner, except that the time for making claims for extra costs is one week.

The Contractor agrees:

(d) That no claim for HVAC rendered or materials furnished by the contractor to the sub-contractor shall be valid unless written notice there of is given by the contractor to the sub-contractor during the first ten days of the calendar month following that in which the claim originated.

(e) To give the sub-contractor an opportunity to be present and to submit evidences in any arbitration involving his rights.

(f) To name as arbitrator under arbitration proceedings as provided in the general conditions the person nominated by the sub-contractor, if the sole cause of dispute is the work, materials, rights or responsibilities of the sub-contractor, or, of the sub-contractor and any other sub-contractor jointly, to name as such arbitrator the person upon whom they agree.

The contractor and the sub-contractor agree that:

(g) In the matter of arbitration, their rights and obligations and all procedures shall be analogous to those set forth in this contract.

12.2 NOMINATED SUB-CONTRACTORS AND / OR SUPPLIERS:

The Contractor shall render all HVAC to the Nominated sub Contractors / suppliers, such as transport (if any), storage of materials, sheds, offices, scaffolding, staging, necessary tools and equipment for welding and grinding, gas cutting and grouting facilities, skilled and unskilled assistants as may be required by the nominated sub-Contractors / suppliers. The Consultant / PMC/ Architect / Employer and their representative shall have a right of access to the workshop and other places of the Nominated Sub-Contractors / Suppliers for the purpose of inspection and / or approval. The out-of-pocket expenses of the skilled artisans and tradesman sent by the nominated sub-Contractors / suppliers for executing the job shall be borne by the Contractor.

13. VARIATIONS NOT TO VITIATE CONTRACT:

The Contractor shall when directed in writing by the Consultant omit from or vary works shown upon the drawings or described in the specifications or included in the priced Schedule of Quantities, but the Contractor shall not make any alterations in the provisions of the Contract without such authorization or direction in writing from the Consultant.

In giving instruction, the Consultant shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the building, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order from the employer signed or countersigned by the Architect / PMC, or a written order from the Consultant stating that the employer has authorized the extra work or change, and no claim for an addition to the contract sum shall be valid unless so ordered.

No claim for an extra shall be allowed unless; it shall have been executed by the proper authority of the Employer / PMC/ Architect / Consultant as herein mentioned. Any such extra is hereinafter referred to as an authorised extra. No variation, i.e. additions, omissions or substitutions shall vitiate the Contract.

The Consultant in accordance with the provisions of clause 4.1 (a), (b) and (c) and clause 15.5 shall settle the rate of items not included in the Schedule of Quantities hereof.

15. MEASUREMENT OF WORKS:

15.1 Work done determined by measurement:

The engineer shall, except as otherwise stated, ascertain and determine by measurement the value of work done in accordance with the contract.

15.2 Measurement to be taken jointly:

The measurements shall be taken jointly by the consultant/ site engineer and by the contractor or his authorised representative. The contractor shall without any extra charge provide assistance with every appliance and other things necessary for measurements.

15.3 Measurements to be recorded before work is covered up:

The contractor shall take joint measurement before covering up or otherwise placing beyond the reach of measurement any item of work. Should contractor neglect to do so, the same shall be uncovered at the contractor's expenses or in default thereof, no payment of allowance shall be made for such work.

15.4 Method of measurement:

Except where any general or detailed description of the work in the Schedule of quantities or specification expressly shows to the contrary, bill of quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the specification notwithstanding any provisions in the relevant standard method of measurement or any general or local custom. In the case of items, which are not covered by the Schedule of quantities or specifications, measurements shall be taken in accordance with the relevant latest standard of the Indian Standard Institution.

The consultant may from time to time intimate the Contractor that he requires the works to be measured and the Contractor shall forthwith attend or send a qualified agent to assist the "Site Engineer" or the Consultant's representative in taking such measurements and calculations and to furnish all particulars or give all assistance required by either of them.

Should the Contractor omit to attend or neglect or omit to send such agent, then the measurements taken by the "Site Engineer" and the Consultant or a person approved by him and these shall be taken to be the correct measurements.

The works shall be measured according to the mode of measurements.

All authorised extra works, omissions and all variations made without the Consultant's knowledge, if subsequently sanctioned by him, in writing, shall be included in such measurements provided the HVAC Consultant has authorised the said extra works or omissions or variations made.

15.5 ASCERTAINMENT OF PRICES FOR EXTRAS ETC:

Should it be found after the completion of the works from measurements taken in accordance with the previous paragraph that any of the quantities or amounts or works thus ascertained are less or greater than the amounts specified for the works in the priced schedule of quantities and / or that any variation is made, the valuation thereof, unless previously or otherwise agreed upon, shall be made in accordance with the following rules:

- (a) The net rate or prices in the original Tender shall determine the valuation of the extra work / reduced work where the same is of similar character and executed under similar conditions as the work priced therein.
- (b) The net rate or prices in the original Tender shall determine the value of the items omitted, provided if omissions vary the conditions under which any remaining items

(c) Of works are carried out, the prices for the same shall be valued under clause 4.1 (a), (b) and (c) above.

16. PROTECTION OF WORK AND PROPERTY:

The contractor shall continuously maintain adequate protection of all his work from damage and shall protect the owner's property from injury or loss arising in connection with this contract. He shall make good any such damage injury or loss, except such as may be directly due to errors in the contract documents or caused by agents, or employees of the owner. He shall adequately protect adjacent property as provided by law and the contract documents.

The contractor shall take all necessary precautions for the safety of employees on the work, and shall comply with all applicable provisions of Central, State and municipal safety laws and erection codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed.

He shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of erection as protruding angles, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials, and he shall designate a responsible member of his organization of the work, whose duty shall be the prevention of accidents. The name and position of the person so designated shall be reported to the consultant by the contractor.

In an emergency affecting the safety of life or of the work or of adjoining property, the contractor, without special instruction or authorization from the Consultant or Employer, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so instructed or authorized. Any compensation claimed by the contractor on account of emergency work shall be determined by agreement or arbitration.

16.1 SAFETY MEASURES:

In the event of failure on the part of the contractor to provide and maintain all the protective measures as aforesaid the consultant/engineer may with or without notice to the contractor put up fencing or improve the lighting or adopt such other measures as he may deem necessary and all the cost of such procedure as may be adopted by the consultant/engineer shall be borne by the contractor. In addition, the engineer may impose such fines or penalty, as the engineer may deem reasonable under the circumstances.

- The contractor shall make no unauthorised electrical connection.
- The contractor shall ensure that all safety precaution expected of their professional work are fully understood by his workmen and supervisors.
- Any hot job (welding, soldering etc.) however minor it may be or any job which involves open flame or using a hot source or temporary electrical connections shall not be done without prior consent of the engineer.
- All equipments used for carrying out the work shall be rendered safe so that no injury or accident will occur. Should any such occur the contractor shall be held entirely responsible for the same.
- The contractor shall at his own cost provide and maintain at the site a standard first aid box as directed and approved by the engineer for the use of his own as well as the employer's staff on site.

All equipment shall be complete with approved safety devices wherever a potential hazard to personnel exists, and with provision for safe access of personnel to and around equipment for operational and maintenance functions. These items shall include not only those usually furnished with elements of machinery but also covers, guards, crossovers, stair ways ladders platforms, handrails etc. which are necessary for safe operation of the system.

The tenderer shall include for all safety devices including but not limited to the following items:

- a. Belt Guards: Belt Guards shall be designed with approved provision to facilitate belt inspection, adjustment, replacement and general servicing.
- b. All couplings are to be covered with an approved Guard, fabricated from welded plate & structural steel.
- c. Access Ladders and platforms: Provisions shall be made for access ladders and platforms with hand rails as necessary to provide operator's safe access to inspection.
- d. Panels and other electrical equipment: As per relevant IEE rules.

17. MUTUAL RESPONSIBILITY OF CONTRACTORS:

Should the contractor cause damage to any separate contractor and/or sub-contractor on the work the contractor agrees upon due notice to settle with such contractor by agreement or arbitration, if he will so settle.

If such separate contractor sues the owner on account of any damage alleged to have been so sustained, the owner shall notify the contractor, who shall defend such proceedings at his own expenses and, if any judgement against the owner arise there from, the contractor shall pay or satisfy it and pay all costs incurred by the owner.

18. DEFECTS AFTER COMPLETION:

Any defect, unsound erection or other faults which may appear within the "Defects Liability Period" stated in the Appendix hereto or if none stated, then for a period of three years after the Virtual Completion of the work, arising in either the opinion of the HVAC Consultant or Architect or Employer from equipment / materials or workmanship not in accordance with the Contract, shall upon the directions and writing of the Consultant, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his cost unless, the HVAC Consultant / Employer shall decide that he ought to be paid for such amending and making good and in case of default, the HVAC Consultant and/or Employer may employ and pay other persons to amend and making good and pay other persons to amend and make good such defects, or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer upon the Consultant's certificate in writing from any money due or that may become due to the Contractor.

Whenever the works pertain to or include the erection & commissioning of any system, the Contractor shall be held responsible for the safety of the system for a period of ten years counted from the expiry of the Defects Liability Period, provided herein, and shall be wholly and exclusively liable for any latent or patent defect or deficiency manifesting itself in the system during such period of ten years and affecting or likely to affect the safety of the system.

19. COMPLETION, DELAY & PENALTY:

19.1 CERTIFICATE OF VIRTUAL COMPLETION OF WORKS:

The Contactor shall report in writing to the HVAC Consultant / Employer, in terms of the Certificate as and when the works are completed in all respects to enable the Employer to take possession of the completed work. The defects liability period shall commence from the date of issue of such certificate by the Contractor and approved by Consultant and Architect to be called as **“Virtual Completion Certificate”**.

19.2 DATE OF COMPLETION:

The work is given to the Contractor on the day the letter of Intent / Instructions to proceed with the work is given. He shall thereupon and forthwith begin the works and shall proceed regularly with and complete the same in accordance with the program of erection & Commissioning, to the entire satisfaction of the Consultant / PMC/Architect / Employer within 3 months, subject to terms hereof and nevertheless, to the provision for extension of time herein after contained.

19.3 DELAY AND EXTENSION OF TIME:

If in the opinion of the PMC/ Architect / HVAC Consultant the works be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by the dispute with adjoining or neighbouring owners or public authorities arising otherwise than the Contractor's own default or (d) by the works or delays of other Contractors or tradesmen engaged or nominated by the Employer or the Consultant and not referred to in the Schedule of Quantities and/or specifications or (e) by reason of the Consultant's instructions as per clause (g) or by reason of civil commotion, legal, combination of strike or lock-out affecting any of the contractor or (g) in consequence of the Contractor not having in due time necessary instructions from the Consultant for which he shall have specifically applied in writing, ahead of time, giving the Consultant reasonable time to prepare such instructions, the HVAC Consultant shall make a fair and reasonable extension of time for completion of the Contract works. In case of such strike or lockout the Contractor shall, as soon as possible, give written notice thereof to the Owner/Consultant, but the Contractor shall nevertheless constantly use his endeavour to prevent delay and shall do all that may reasonably be required to the satisfaction of the Consultant to proceed with the work.

The Contractor shall take all practicable steps to avoid or reduce any delay in execution and completion of the works arising out of the above.

19.4 DAMAGES FOR NON-COMPLETION:

(a) If the Contractor fails to complete the works by the date named in clause 19.2 (Date of Completion) or within any extended time under clause 19.3 (Extension of Times) and if the HVAC Consultant shall certify in writing on or before the issue of the Certificate for the last payment to which the Contractor may become entitled here under that the works could reasonably have been completed by the date or within the said extended time, then the Contractor shall pay or allow the Employer the sum to be worked out as per clause 19.7 to be recovered by way of penalty for the delay and not as Liquidated Damages and not beyond the said date or extended time, as the case may be, during which the works shall remain unfinished and such damages may be deducted from any moneys due or which may become due to the Contractor.

(b) Without prejudice to the right of the Employer to recover from the Contractor the penalty / liquidated damages under the foregoing clause, the Employer shall be entitled to recover from the Contractor compensation for any loss or damage arising to the Employer from such breach of the Contract by the Contractor including compensation equivalent to the amount or losses incurred described under the following heads:

1. Compensation payable to the Consultants in consequence of the prolongation of the Contract period.

2. Compensation for the cost incurred by the Employer to maintain the on-site and off-site establishment in consequence of the breach of the Contract committed by the Contractor to so complete the work.
3. Compensation for the cost incurred by the Employer to pay the rents of premises intended to be vacated upon the completion of the A.C. System under this Contract.
4. Compensation for the loss of interest on the funds invested in the execution of works, such interest being at a rate 3% higher than the lending rate by the Nationalised Banks.

The deduction of such sum shall not, however, absolve the Contractor of his responsibility and obligations to complete the work in its entirety. These would be in addition to clauses already mentioned in the tender document.

19.5 CERTIFICATE & PAYMENT:

Contractor shall be paid his charges for his work as under on certification from HVAC Consultant / Architect.

For HVAC Equipments:

- (a) **10 %** of the estimated amount of contract will be paid by Employer to Contactor as Advance, against Contractor's furnishing a bank guarantee issued by a scheduled bank or nationalized bank for an equivalent amount on behalf of Contractor strictly as per the format to be provided by the Employer.
- (b) **50%** of the payment on prorata basis against delivery of Units duly certified by the HVAC Consultant. The deliveries will be made strictly as per approved bar chart by Employer/consultant. The material shall be certified by the Consultant to be fit for use in the project.
- (c) **25%** of the payment on completion of works, testing and commissioning of equipment duly certified by the Consultant and after handover to the Employer / End user.
- (d) **15%** of the payment on completion of successful guarantee period. Employer can release this payment of 10 % against receipt of defects liability Bank Guarantee from a nationalised bank. The defect liability Bank Guarantee will be valid till completion of guarantee period. If contractor fails to provide guarantee HVAC to the satisfaction of employer the defect liability Bank Guarantee could be encashed by the employer.

For HVAC Chiller Relocation Low Side BOQ:

- (e) **10 %** of the estimated amount of contract will be paid by Employer to Contactor as Advance, against Contractor's furnishing a bank guarantee issued by a scheduled bank or nationalized bank for an equivalent amount on behalf of Contractor strictly as per the format to be provided by the Employer.
- (f) **20 %** of the payment on prorata basis against 1st running bill / invoice duly certified by the HVAC Consultant. The deliveries will be made strictly as per approved bar chart by Employer /consultant. The material shall be certified by the Consultant to be fit for use in the project.
- (g) **20%** of the payment of the payment on prorata basis against 2nd running bill / invoice duly certified by the HVAC Consultant. The deliveries will be made strictly as per approved bar chart by Employer /consultant. The material shall be certified by the Consultant to be fit for use in the project.

- (h) **15%** of the payment of the payment on prorata basis against 3rd running bill / invoice duly certified by the HVAC Consultant. The deliveries will be made strictly as per approved bar chart by Employer/consultant. The material shall be certified by the Consultant to be fit for use in the project.
- (i) **20%** of the payment on completion of works, testing and commissioning of equipment duly certified by the Consultant.
- (j) **15%** of the payment on completion of successful guarantee period. Employer can release this payment of 10 % against receipt of defects liability Bank Guarantee from a nationalised bank. The defect liability Bank Guarantee will be valid till completion of guarantee period. If contractor fails to provide guarantee HVAC to the satisfaction of employer the defect liability Bank Guarantee could be encashed by the employer.
- i) The Employer shall deduct applicable amount of income tax required to be deducted at source from the respective payments, including advances and also deduct retention money, from each bill.
- ii) Contractor shall be issued interim certificate by Architect / PMC / HVAC Consultant for releasing payment upon completion of proportionate work as mentioned in the certificate which will not be less than **Rs. 5,00,000/- in value**.

Value of the work for the interim certificate shall be calculated on the basis of total work completed till the date of issue of certificate minus total work completed as mentioned in the previous interim certificate if any issued by the Consultant.

Employer shall process and pay as per the terms herein above against completion certificate after deducting any amount, which has already been paid against the work, mentioned in the Certificate.

19.6 DEDUCTIONS FOR UNCORRECTED WORK:

If the HVAC Consultant deems it inexpedient to correct work already done or work not done in accordance with the contract, an equitable deduction from the contract price shall be made therefore.

The HVAC Consultant shall have the powers to withhold any Certificate if the works or any parts thereof are not carried out to his satisfaction.

The HVAC Consultant may by any Certificate make any correction in any previous certificates, which shall have been issued by him.

The Contractor shall submit the final bills within one month of Virtual Completion certificate received from the Contractor duly endorsed by the Architect, and such bill shall be settled and certified for payment by the PMC/ Architect / HVAC Consultant within one month of the submission of the bill.

Payments upon the Consultant's interim certificate shall be made within a period of thirty days named in the appendix as "Period of Honouring of Interim Certificates" after such Certificate has been delivered to the Employer. Payment upon the Consultant's Final Certificate shall be made within a period of 60 days.

The Contractor shall submit separate sheets serially numbered with dates for all extra and deviated items of work.

Contractor shall, without fail, submit along with his R.A. Bills / Final Bills the test certificates to the HVAC Consultant for all equipment's & erection material. Such test certificates and result shall be presented to and certified for acceptance by the HVAC Consultant before submission along with R.A. Bills / Final Bills. R.A. Bills / Final Bill received without the test certificates / results duly

approved by HVAC Consultant shall be returned to the Contractor for the reason of the same being not submitted duly.

19.7 PENALTY CLAUSES:

The Contractor has to guarantee the completion period for the project, strictly as per Clause 19.2 and as agreed in the Bar Chart.

This is to highlight that the Contractor should ensure delivery / erection as per the BAR CHART. The Payment schedule / Provision will be made as per approved Bar Chart.

PENALTY: The Contractor shall pay Penalty @ 0.5% of the total Contract Value per week of delay after the end of the approved schedule or as per Bar Chart.

The upper limit of the Penalty amount shall be up to a maximum of 10% of the total Contract Value.

19.8 CLAIMS:

Neither the final payment nor any part of the retained percentage shall become due until the contractor, if required, shall deliver to the owner a complete release of all his claims arising out of this contract on receipts in full in lieu thereof and, if required in either case, a certificate that so far as he has knowledge or information the release and receipts include all the labour and materials for which a claim could be filed, but the contractor may, if any sub-contractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Employer to indemnify him against any such claim. If any claim remains unsatisfied after all payments are made, the contractor shall refund to the Employer all moneys that the latter may be compelled to pay in discharging such claim including all costs and a reasonable attorney's fee.

19.9 TOTAL SECURITY DEPOSIT:

Total Security Deposit shall comprise:

- (A) Earnest Money Deposit (Rs.1,00,000/-)
- (B) Initial Security Deposit (Rs.1,00,000/-)
- (C) Retention Money

(A) EARNEST MONEY DEPOSIT:

The Contractor shall deposit on amount of Rs. 1,00,000 /- in the form of Bank Draft drawn in favour of the Employer and attach draft at the time of submission of tender as the Earnest Money. If the Contractor fails to enter into a formal agreement/or if he fails to pay the security deposit as stipulated/or if he fails to commence the work within stipulated time limit, earnest money deposit shall stand forfeited.

(B) INITIAL SECURITY DEPOSIT:

The successful tenderer to whom the Contract is awarded shall deposit as initial security deposit by Bank Draft a sum to make up Rs. 1,00,000/-after the appropriation of the Earnest Money Deposited by him. The successful tenderer shall pay security deposit within 15 days after receiving the letter of acceptance of his tender. No interest shall be paid on this security deposit.

The security deposit, either in whole or in part thereof, shall be forfeited in the event of the Contractor failure to observe any terms of his Contract/or non-compliance with the conditions of the Contract. The security deposit amount will be adjusted or included in the retention money as per sub-clause "C" herein below.

(C) RETENTION MONEY:

Apart from the initial security deposit to be made by the Contractor as aforesaid, the retention money shall be deducted from progressive running account bills up to 5% of the gross value of work done and claimed in each running account bill. Provided that the total security deposit i.e. the initial security deposit amount plus the retention amount shall both together not exceed 10% of the Contract price as determined after considering all variations as approved.

On virtual completion of the job and on the Contractor's submitting to the Consultants the "As built" drawings, the Consultant shall declare the job to be virtually complete and upon this an amount equivalent to 50% of the total security deposit will be refunded to the Contractor and the balance shall be retained by the Employer till the end of the Defects Liability Period and the Contractors shall have option to have the balance retention money replaced by Bank Guarantee of equivalent amount which will be retained with the Employer till the end of the Defects Liability period. The Bank Guarantee shall be valid up-to the end of the Defects

Liability Period and the same shall be released only upon successful completion of the Defects Liability Period.

If the Contractors do not carry out rectification work during the Defects Liability Period, the Employer shall have the right to get such defective work rectified after giving due notice in writing to the Contractors and recover the cost of repairs from the monies so retained.

19.10 GUARANTEE:

The tenderer shall guarantee against manufacturing and installation and workmanship defects of all equipment and material supplied and carried out by him for a period of 18 months from the date when the equipment is accepted and taken over by the Employer for running purposes i.e. after performance tests as per Clause 36 are completed. The contractor will operate the system till it is taken over by the Employer.

20. INSURANCE CONTRACT CONDITIONS:

CONTRACTOR'S LIABILITY AND INSURANCE:

(a) From commencement to completion of works, the Contractor shall take full responsibility for the care of the work and for taking precautions to prevent loss or damage to the work to the maximum extent possible extent and shall be liable for any damage or loss that may arise to the works or any part thereof from any cause whatsoever including causes of lightning explosion, earthquake, storm, hurricane, floods, tempest, fire, inundation, subsidence, landslides, rock slides, riots (excluding civil war, rebellion, revolution and insurrection) but further including the failure of the design, the failure or omission to recognize properly and accurately the substrata of the design or any latent defect and shall at his own cost repair and make good the same so that at all times the work shall be in good order and condition and in conformity in every respect with the requirements of the Contract.

The contractor shall also take transit, storage & erection insurance of the complete HVAC equipments / materials to be installed at site. He shall also take CAR policy for the safety of his worker.

Explanation:

For the purpose of this condition, the expression from the commencement of the work shall mean the time commencing from the issue of the acceptance letter to the Contractor & ending with the expiry of handing over of the system as provided in the Agreement.

(b) Without limiting the obligations and responsibilities under this condition, the Contractor shall insure and keep insured the works from commencement to completion, as aforesaid, as increased by 25% against the risk of loss or damage from any cause whatsoever including the causes enumerated in foregoing Clause (a), in the event of there being a variation in the nature and extent of the works, the Contractor shall from time to time increase or decrease the value of the insurance correspondingly the said insurance shall also provide for the removal of debris of the lost or damaged works. The said insurance shall be in the joint name of the Employer and the Contractor, and the Contractor should deposit with the Employer the said policy or policies before commencing the work. All money paid by the insurer under such policy/policies shall be recovered by the Employer only and shall be paid to the Contractor or any other agency of Employer's choice in the instalment for the purpose of rebuilding or replacing or repairing the works and/or goods destroyed or damaged as the case may be.

(c) If the Contractor has blanket insurance policy for all the works to be executed by him, and if the policy shall be assigned by the Contractor in favour of the Employer provided however that if any amount is payable under the policy by the insurers in respect of the works other than the work under the Contract, the same may be recovered by the Contractors directly from the insurers.

(d) The Contractor shall at all times indemnify and keep indemnified the Employer against all losses, claims, damages or compensation under the provisions of the payment of the Wages Act 1936, Minimum Wages Act 1948, Employer's Liability Act 1938, Workman's Compensation Act 1923, the Maternity Benefit Act 1961, the Bombay Shops and Establishment Act 1947, Industrial Disputes Act 1947, & Contract Labour (Regulation & Abolition) Act 1970 and Employees State Insurance Act 1948 and any modification thereof or any other law relating thereto and rules made there under from time to time or as a consequence of any accident or injury including death to any workman or other person in or about the work whether in the employment of the Employer or Contractor or not, and also against all costs, charges & expenses of any suit, action or proceedings whatsoever out of such accident or injury or combination of any such claims.

(e) Before commencing the work, the Contractor shall without limiting his obligations and responsibilities under this condition, insure against any loss of life or injury to any personnel in the employment of Contractor / sub-contractor / nominated sub-contractor. He shall take CAR policy for the safety of the workers.

For this purpose, the insurance shall be taken by the Contractor / sub-Contractor. Such insurance shall be taken to include both employees/ workmen covered by the Workman's Compensation Act 1923, as well those employees / workmen not covered by the said Act. Separate insurance policies may be taken for employees / workmen covered by Workman's compensation Act 1923, and employee's workmen not covered by the said Act. The Contractor shall pay the entire premium.

Policy / policies taken under this para for the personnel in employment with the Contractor / Sub-Contractor maybe in their Employer's names of the Contractor / Sub-Contractor / nominated sub-contractors. In the event of any loss or injury to personnel in employment with the Contractor / Sub-Contractor / nominated sub-contractors, the Employee and Contractor shall recover directly from the insurance Company and ensure that payment of the same is made to the affected parties.

The policy in original shall be deposited with the Employer.

(f) The Contractor shall at all times indemnify and keep indemnified the Employer against all losses and claims for injuries, damage or death of any person or properties whether in the employment of the employer or not or damage to any goods or equipment's or machinery or any other property, moveable or immovable belonging to the employer on any other person authorised by the employer to be at the site of works or executing any other work not included in this contract whatsoever which may arise out or in consequence of the erection and maintenance of the work

and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto.

Before commencing the execution of the works, the Contractor shall without in any way limiting his obligations and liabilities under this condition, insure at his cost and expense against any damage or loss or injury which may be caused to any person or property including the Employee or servants of the Employer the Architect and the Consultants and their property by or in the course of the execution of the works. Such insurance to be known as the Third-Party Insurance shall be in a sum equivalent to ten percent of the estimated value of the work, subject to the minimum sum of Rupees Five Lacs. The Insurance policy to be so obtained by the Contractor shall be deposited by the contractor with the Employer within seven days of its issue by the insurer.

The Contractor shall provide Employer with documentary evidence from time to time, that he has taken over all the insurance policies mentioned in the foregoing paragraphs and that he has paid the necessary premium for keeping the policies valid till the expiry of the defects liability period.

(g) If the Contractor and/or his sub-Contractor or nominated sub Contractor, if any, shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the terms of the Contact, then in any such case, the Employer may, without being bound to effect and keep in force any such insurance policy and pay such premium or premium, as may be necessary for that purpose from time to time and deduct the amount so paid by the Employer from any money due or becoming due to the Contractor recover the same as a debt due from the Contractor.

(h) All insurance to be effected by the Contractor and / or his sub Contractors or nominated sub-Contractors, if any, shall be taken only with the insurance Company to be approved by the Employer.

(i) Without prejudice to any of his obligations and responsibilities under this condition, the Contractor shall on or before executing the agreement, furnish to the Employer certificate indicating the insurance or insurance's obtained by him in the format given below:

CERTIFICATE:

This is to certify that the work under this interim certificate as resented to the Consultant was executed only after obtaining the necessary insurance policies in accordance with our obligation under this Contract and during the execution of such work, the insurance policy was current and valid as detailed below:

Work Insurance	Third party Insurance	Workmen's Insurance (at 125 % value)	Fire Insurance	Car Insurance
(Including All risks act of God etc. at 125% of Contract Value)				
Name of insurance Company				
Policy No.				
Value in Rupees				
Date of Issue				
Date of expiry				

(j) No work shall be commenced by the Contractor unless and until he has obtained the insurance or insurances required to be obtained by him under or by the foregoing clauses and no work shall be carried out or continued by the Contractor unless and until each insurance is current and valid at that time.

All the receipts in original along with two photocopies thereof, for the payment of the premium shall be furnished by the Contractor to the Employer. The original receipts will be returned to the Contractor after verification. The Employer reserves the right for payment on works done subject to fulfilment of this condition & shall instruct the Consultants accordingly.

(k) In the event of any claim for insurance becoming due on account of any eventuality covered by the respective insurance policy/policies, the Contractor shall reinstate the installation, replace the materials or equipment's or pay compensations to the affected personnel/Employees without waiting for settlement of the claim from insurance company.

(l) If the Contractor shall not perform and observe any of the duties and obligations devolving upon him hereunder, and such omission or breach by the Contractor shall involve the Employer in any liability tortuous and/or loss or damage, the Employer shall be entitled to the restitution of such loss or damage and shall be entitled to recover the amount of restitution of such loss from any moneys due to the Contractor from the Employer under this Contract or any other Contract.

(m) The Employer, on obtaining the handing over certificate for the system & on taking & coming into possession of the same, shall insure the system on their own.

The employer shall be responsible to take the appropriate insurance policies to cover the risk for its agents and Consultant etc. as appointed by the employer.

21. USE OF PREMISES:

The Contractor shall confine his apparatus; the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the Consultant and shall not unreasonably encumber the premises with his materials.

The contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

The contractor shall enforce the Consultant's instruction regarding signs, advertisements, fine and smoking.

22. CONSULTANT'S DELAY IN PROGRESS:

The HVAC Consultant may delay the progress of the works in case of rains or otherwise, without vitiating the Contract and grant such extension of time with the approval of the Architect / Employer for the completion of the Contract as he may think proper and sufficient in consequence of such delay, and the Contractor shall not make any claim for compensation or damage in relation thereto.

23. HVAC CONSULTANT'S STATUS:

The HVAC Consultant shall have the total responsibility for supervision and direction of the work. He is the representative of the Employer and the Architect and he is authorised by the Employer to act in what so ever manner that is reasonable to ensure work execution in all stages i.e. from design till commissioning and handing over is as per the Contract. He shall have no authority to change / amend / omit / add the Contract, except if specifically authorised by the Architect / PMC /Employer.

As the Consultant is, in the first instance, the interpreter of the technical specifications of the contract and the judge of its performance, he shall side neither with the Employer nor with the Contractor, but shall use his powers under the contract to enforce its faithful performance by both.

24. ARCHITECTS' & HVAC CONSULTANT'S DECISION:

The HVAC Consultant shall, within a reasonable time, make decisions on all claims of the Owner or Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract.

The Architects decision, in matters relating to aesthetic effect, Interiors, finished levels etc. shall be final, if within the terms of the contract documents.

25. TERMINATION OF THE CONTRACT BY THE CONTRACTOR:

If payment of the amount payable by the Employer under the Certificates of the Consultant as provided for hereinafter shall be in arrears and unpaid for 30 (thirty) days after notice in writing requiring payment of the amount with interest as aforesaid shall have been given by the Contractor to the Employer (or if the Employer interferes with or obstruct issue of any such Certificates, or the Employer commits any 'Act of Insolvency', or firm shall be adjudged insolvent or (being an incorporated company) shall have an order made against it or pass an effective resolution for winding up either compulsorily or subject to the supervision of court or Voluntarily, or if the official Assignee or the Liquidator in any such winding up shall be within 15 (fifteen) days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Contractor that he is able to carry out and fulfil the Contract and to make all payments due, and to become due hereunder and if

required by the Contractor, to give security for the same, or if the works be stopped for 3 (three) months under an order of the Consultant or the Employer or by any injunction or other orders of any court of law, then and in any of the said cases the Contractor shall be at liberty to determine the Contract by notice in writing to the Employer, through the Consultant, and he shall be entitled to recover from the Employer payment for all works executed and for any loss he may sustain upon any equipment or material supplied or purchased or prepared for the purpose of the Contract such material shall thereupon become the absolute property of the Employer and the Contractor shall not have any interest or right whatsoever in such equipment or material.

In arriving at the amount of such payment, the net rates contained in the Contractor's original tender shall be followed, or where the same may not apply, valuation shall be made in accordance with clause 15.5 (prices for Extras etc. ascertainment of) hereof.

26. INSPECTION OF SITE AND SUFFICIENCY OF TENDER:

(a) The Contractor shall inspect and examine the site and its surrounding and shall satisfy himself before submitting his tender as to the nature of the site, the quantities and nature of the work and materials necessary for the completion of the works and means of access to the site, the accommodation he may require and in general, shall himself obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect his tender.

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

(c) No extra charges consequent on any misunderstanding or otherwise shall be allowed.

(d) The Contractor shall, on the basis of his findings emerging from the study of the subsoil conditions, examine the foundation drawing furnished in the tender book and shall be at liberty to submit his objections or suggestions of the proposed system as may be relevant to conditions found by him directly to Consultant. The Contractor shall be entitled to recover the cost of ascertaining the

conditions at the site and such cost shall be deemed to be included in the rates tendered by the Contractor.

NOTICE TO LOCAL BODIES:

The Contractor shall comply with and give all notices required under any law, rule, regulations, or byelaws of parliament, State Legislature or Local Authority retaining to works. The Contractor shall before commencing the execution of work issue a certificate to the Employer or his "Site Engineer" that he has obtained all the permission and give all the notices as are required to be obtained or given under law particularly blasting permission etc.

27. ARBITRATION CLAUSE

1) All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract of the rights touching or concerning the works or the execution or maintenance thereof of this contract or the constructions remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final & binding) shall after written notice by either party to the contract to the other of them & to the Appointing Authority who shall be appointed for this purpose by the employer be referred for adjudication to a sole arbitrator to be appointed as herein after provided.

2) For the purpose of appointing the sole arbitrator referred to above, the Appointing Authority will send within thirty days to receipt by him of the written notice aforesaid to the contractor a panel of three names of a person who shall be presently unconnected with the organisation for which the work is executed.

3) The contractor shall on receipt by him of the names as aforesaid, select anyone of the persons named to be appointed as a sole arbitrator and communicate his name to the Appointing Authority within thirty days of receipt by him of the names.

The Appointing Authority shall thereupon without any delay appoint the said person as the sole arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the Appointing Authority shall make the selection and appoint the selected person as the sole arbitrator.

4) If the Appointing Authority fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Appointing Authority a panel of three names of persons who shall all be unconnected with either party. The Appointing Authority shall on receipt by him of the names as aforesaid select any one of the persons named and appoint him as the sole arbitrator. If the Appointing Authority fails to select the person and appoint him as the sole arbitrator within thirty days of receipt by him of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the person from the panel as the sole arbitrator and communicate his name to the Appointing Authority.

5) If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed as aforesaid.

6) The work under the contract, shall however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

7) The arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing.

8) The arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

9) The Arbitrator shall give a separate award in respect of each dispute or difference referred to him. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion.

10) The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any, of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle the amount of costs to be so paid.

11) The award of the Arbitrator shall be final and binding on both the parties.

12) Subject to aforesaid the provisions of the Arbitration Act 1940 or any statutory modification or re-enactment thereof and rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

Date

Signature of the Contractor.

28. DESCRIPTIVE LITERATURE & DRAWINGS:

Tenderer shall submit following in duplicate along with tenders:

- a. Descriptive leaflets giving complete process, mechanical, electrical & instrumentation data about the equipment offered and drawings showing detailed dimensions of the equipment.
- b. The statements of technical particulars and performance specification along with performance curves with efficiency power consumption & C.O.P. of the equipment offered in the Performa given in Tender document.

After the Order is placed / Letter of Intent released, the successful tenderer shall supply each of the following within TEN Days from the date of placement of the order:

- A. List of all shop-drawings that the Contractor intends to submit. Complete installation drawings showing details of the AC Units, Outdoor unit, Typical refrigerant piping details for IDU, ODU etc., refrigerant pipes and their sizes, ducting layouts, electrical circuit diagrams etc.
- B. Instruction books for operation, maintenance and servicing of all units.
- C. List of recommended spares for two years of operation.
- D. BAR CHART.

The Tenderer should prepare all the working drawings and submit the same in triplicate for approval to the Architect/HVAC Consultant.

NOTE: Before taking up the installation work at site the Tenderer should ensure that the installation drawings are approved by the Employer, PMC, Architect and Consultants. The tenderer shall be deemed to have acquainted himself with site conditions.

29. ERECTION:

This specification provides for the complete erection including minor civil works like wall cut-outs for pipes etc. However, RCC foundations will have to be provided by the Employer.

The Contractor shall make good all damages to the Purchaser's building, property, equipment's and articles, how so ever arising from the erection of the equipment. The Contractor shall indemnify and hold harmless the employer against all claims in respect of injury to any person how so ever arising out of the erection of the equipment in the course of such installation.

The Contractor shall discharge all his obligations under the Indian Workman's Compensation Act and E.S.I. in so far as it affects workmen in his employment.

The Contractor shall make his own arrangements for procuring the necessary labour, skilled and unskilled. He should conform to all local government laws and regulations concerning labour and their employment.

The Contractor and his employees will submit to the regulations in force for controlled entry into the premises where the air-conditioning equipment is to be installed.

30. TRAINING OF PERSONNEL:

The tenderer shall undertake to extend free training in operation and maintenance of Air-conditioning system offered by them to four technical persons of **MGM Hospital and Research Centre CBD Belapur** at their works for a period of 5 days & 15 days at the site of Employer.

A certificate in this regard will have to be obtained from the Employer by the tenderer. The expenditure in respect of journey and stay necessary for this training will be borne by the Employer. The choice of dates for training is to be decided in consultation with the Employer.

31. GENERAL:

In order to avoid correspondence and clarification at a later date, tenderer should indicate clearly all technical details and information asked for in Tender document.

In absence of any information on item will be assumed to be negative reply.

32. CO-ORDINATION:

- Work shall be carried out in confirmation with the specification, accompanying drawings and with the requirements of the Architectural drawings, general and HVAC Consultants and structural and electrical plans after approval by the Employer. The Contractor shall be responsible for taking actual measurements at site and effecting variations in the work, in details, required to meet the site conditions. Such deviations shall however be subject to the approval of the Employer.

- The Contractor shall also co-operate with other Contractors employed by the employer, compare plans, specification and time schedules and shall forward to the Employer copies of all correspondence and drawings so exchanged. Failure to check plans and conditions will render the contractor responsible for bearing the cost of any subsequent change.

33. DRAWINGS AND LITERATURE / DOCUMENTATION:

a. Before proceeding with the work, the Contractor shall submit the following documents:

1) Descriptive leaflets for all the equipment's viz. AC units, instrumentation data, electrical components, controls etc. having details of capacity power consumption, efficiency, performance curves, best duty points, electrical details, mechanical details, dimensional details, operating wt. etc.

2) General layout and assembly drawings.

3) Point Loading Details / Foundation drawings/frame details for all units.

- 4) Operational & maintenance manuals / instruction book.
- 5) Trouble shooting details.
- 6) All shop / working drawings other than Consultants drawings.
- 7) Detailed BAR CHART with activity schedules.
- 8) Site organization chart giving full details of the staff employed for this project.
- 9) Material delivery schedule.
- 10) Method statements.
- 11) Safety report.
- 12) Samples for material as applicable.

a. Approval by the Employer/Architect/Consultant on the drawings shall not relieve the Contractor of any part of his obligation to meet all the requirements of the contract or of the correctness of his drawings. The Contractor shall be responsible for and pay for all alterations of the work due to discrepancies or omission in the drawings or other particulars supplied by him, whether the Employer has approved such drawings.

b. Three copies (Two copies for Employer and One copy for the Consultant) of the comprehensive manual for use by the Employer before and during erection and subsequent operation and maintenance of the system shall be furnished to the Consultant. HVAC Consultant should submit the manuals / Contractor's documents to the Employer only after approval of the document.

c. The Contractor shall furnish and install in the machine room a neatly prepared set of operating instructions securely framed.

d. The Contractor shall furnish information required in Tender document.

e. The Contractor should test and keep records of the tests carried out on components & equipment to check for their compliance with design qualification.

34. INITIAL INSPECTION:

a. The equipment offered shall be inspected by Employer/Consulting Engineer at site or at the Contractor's / Manufacturer's premises as per requirement.

b. The Employer or his authorised representatives shall have full power to inspect drawings of any portion of the work or examine the materials and workmanship of the System at the Contractor's works or at any place from which the material or equipment is obtained.

If the contractor is offering equipment's form outside the country and if Employer / Architect / consultant's Engineer decides to inspect same, at their costs, necessary help shall be extended by the contractor.

Acceptance of any material or equipment shall in no way relieve the Contractor of his responsibilities for meetings the requirements of specifications.

c. All types of routine and type tests shall be carried out at the works of the Contractor or the manufactures of the components. The Employer shall be free to witness any or all tests if he so desires.

If required by the Employer, the contractor shall permit his representative to be present during any of the tests.

d. Quality plan to be approved by Employer, Architect & Consultant.

35. COMPLETENESS OF ERECTION & COMMISSIONING:

a. Inspection during erection (Installation Qualification):

The employer is at liberty to inspect the System during installation and defects found shall be remedied by the Contractor free of cost. All instruments and services needed for checking the low side works tests will be furnished by the contractor. Any defects and deficiencies that are noticed during these inspections will have to be attended by the Contractor from time to time.

b. Completeness of erection & commissioning (Process Qualification):

Only after the entire installations is satisfactorily completed and the defects found during inspections rectified, the System will be ready for commissioning and then will be subjected to run at least 120 hrs to demonstrate its satisfactory performance. The capacities will be checked as per the format enclosed for performance test. Only then System will be deemed fit to pass on to seasonal tests.

The checks carried out to ensure that the equipments & AC system is correctly installed should be documented.

36. SEASONAL TESTS & TAKE OVER:

The system shall be **taken over by the Owner** after the Performance test is completed as mentioned in C. below. The following tests shall be carried out as and when they become due:

A. "Initial Test" for Air-conditioning Equipment (Operational Qualification):

Upon the Systems' readiness for seasonal tests of summer and monsoon, the contractor shall arrange to carry out various initial tests as detailed below in the presence of and to the complete satisfaction of the Employer or his representative. Any defects or shortcoming found during the tests shall be speedily rectified or made good by the Contractor at his own expenses.

The initial tests shall include but not be limited to:

- i. Test & check the proper functioning and settings of switchgear, starters, contractors, safety controls and electrical motors etc. to ensure their proper functioning.
- ii. Check the system against leaks in different circuits, alignment of motors, flat-belts adjustments, control setting and all such other tests, which are essential for smooth functioning of the system.
- iii. Operate and check the proper functioning of all Components viz. Air Handling Unit etc.
- iv. Check and adjust the water flow in the system to the original design through such components viz. Cooling coils etc.
- v. The initial test perform in the above manner, shall be concluded with reports specifying completeness of all supplied equipment.

B. "Continuous Test" for Air-Conditioning Equipment:

In addition to the "Initial Tests" the Contractor shall also give continuous running tests of the system i.e. during peak summer and monsoon, when the ambient conditions are close to the design ambient conditions.

Each test shall be for (6) six working days *for the Work areas* (and for (3) three continuous days non-stop in case the system is normally used for 24 hours, otherwise, for the duration of the normal use of the system for six consecutive days. The first summer test may be taken on the completion of the installation & satisfactory commissioning provided the ambient temperature and humidity are near their peaks.

The Contractor shall provide all necessary tools, instruments, gauges, flow meter, anemometer etc., as may be required for conduction the various tests. He shall also provide necessary lubricants etc. and required personnel for the tests. However, the Employer shall provide water and power for the tests.

C. "Performance Test" (Performance Qualification):

After erection of various equipment viz AC Units shall be tested for their rated capacity. Following parameters have to be assured by the contractor:

- i. Test Results PRODUCED:
 - a. By Suction / Discharge Temp/ Pressures.
 - b. Current Drawn
 - c. Air flow qty at return air path
- ii. Electric power consumption for each equipment.
- iii. Any other utilities required shall also have to be measured compared to the committed consumption.
- iv. Functionality of each of the items such as heaters, humidifiers, drainage, alarms, cut-offs, safeties, Auto Switchover to standby machines in case of a running unit tripping, Synchronising of working and standby based on number of hrs run etc.
- v. Consumption of items whatsoever nature, not specified in the tender shall be considered as extra consumption and will disqualify the performance test.
- vi. Equipment specific data sheet to be furnished by consultant which should be filled-in by contractor, as actually observed at site.

Testing requirements are also mentioned at the end of Technical Specifications and same need to be followed alongwith.

37. REJECTION OF DEFECTIVE EQUIPMENT:

- a. If the completed system or any portion thereof before it is taken over is found defective or fails to fulfil the intent of the specification, the contractor shall on receipt of notice form the Employer forthwith make defective system good.

Should be fail to do so within a time considered reasonable the employer will proceed to replace at the contractors' risk and expense, the whole or any portion of the system which is defective or fails to fulfil the requirement of the contract.

- b. The Employer shall have the right to operate all equipment, if in operating condition, whether or not such equipment have been accepted as complete and satisfactory.

38. WORK / HVAC TO BE PROVIDED BY THE EMPLOYER:

Under otherwise agreed, the Employer shall provide HVAC to the Contractor for carrying out the following work / erection work.

a. All major masonry/building work such as construction of platform, foundation for all equipments, trenches for pipes, cables masonry shafts and masonry ducts. Minor masonry work, masonry shafts, masonry ducts would be done by other agency. Making of opening / cuts chases in concrete wall to cater

HVAC requirements like ducts, chilled water pipes, cables etc. and making good. Grouting of bolts, fixing of anchor fasteners etc. will be carried out by contractor.

b. Electrical cable of sufficient length upto the entire length of the switchboard shall be supplied & laid by the Employer with suitable earthing. The Employer shall arrange to connect the cable to the incoming side of all the panels on the main / incoming feeder switch.

c. Power for installation and erection purpose shall be arranged at site by contractor himself. The Contractor will also arrange for required extension cables/switch board etc that should be as per safety norms specified by HVAC Consultant.

d. False ceiling & boxing for concealing ducts pipes etc. would be done by other agency, however co-ordination for the works is to be done by HVAC contractor.

e. Aluminium/Wooden frames for air grilles, diffuser etc would be done by other agency, however co-ordination for the works are to be done by HVAC contractor.

f. The contractor at site shall arrange water for installation and erection purpose. The tender rate should be inclusive of all such charges.

g. The Employer will not provide lockable storage space for storage of material / tools / tackles etc. Open space or some portion of the completed building, if available, shall be provided by the Employer, at his / Architects' discretion. Moreover, the safeguard of the same will be Contractor's responsibility.

39. SUBMISSION OF TENDER:

The tenderer shall make out his offer in two parts as Technical & Commercial.

The tenderer, while submitting tender will return all original tender drawings duly endorsing the design and enclosing all required attachments, annexure, confirmations, schedules etc would form the Technical Bid. The offer mentioning the unit rates in the specified format will form the Commercial bid.

In case of any alternate offer submitted these would also be presented both in the Technical part and the Commercial part.

Tenderer shall reduce to the minimum, the enclosure of printed general conditions to avoid confusion. Tenderer shall submit BAR CHART of the project along with the tender. Refer also the General Instructions to fill up the tender on page ___.

40. TENDERER'S CONFIRMATION:

The Contractor shall submit his confirmation with his offer as under on his letterhead:

A. *Design Confirmation:*

We confirm that the design on which this tender is being submitted has been verified by us and that it meets with the requirements of Government, Semi-Government, Municipal, local and other authorities, wherever applicable, whose permission would become necessary for the completion of the project. In our opinion, the design is economical and safe and we have nothing to suggest either by way of effecting further economy or providing additional safety.

B. Confirmation of Tender Price:

- i. Prices shall be inclusive of all taxes and levies. Only statutory variation for finished products shall be payable as extra / reduction shall be passed on to the Employer.*
- ii. Unit rates for variable items shall remain valid till completion of work in all respects and shall become applicable only due to changes or modifications in drawings made by owner after award of contract.*
- iii. Unit rates shall be inclusive of accessories and ancillary items such as special fittings, fitting tees, bends, painting etc.*
- iv. Quantities given in the tender document give a brief description of major equipment only. However, it will be our responsibility to provide all necessary items like hangers, supports etc. so as to give a complete systems as per detailed specification / drawings within the quoted unit rates.*
- v. Variable items indicated in the bill of quantities are average and are available only for our guidance. The quantities of ducting/piping are computed on the basis of the routing shown on drawings. The final quantities can be arrived at after interior layouts of Architects/HVAC Consultant have been finalised. We have satisfied ourselves that the quantities are sufficient to carry out the work called for in the tender documents.*

C. Performance Guarantee:

- i. We guarantee that the air-conditioning & ventilation system will maintain space conditions as per specifications and drawings even if certain items are deleted from our Scope. It is understood that even if the Employer purchases some items directly, the specifications & makes will remain as specified in the Tender.*
- ii. Under specified operating conditions, we guarantee that the sling Psychrometer readings shall show dry bulb temperature and relative humidity will be derived from these, as specified.*
- iii. We also guarantee that the performance of the various equipment individually shall not be less than the specified ratings when working under the operating conditions.*
- iv. We stand guarantee to supply and exhaust the required volume of air as indicated in the schedule of requirements and/or as shown on the drawings.*
- v. Each of the equipment to be supplied by us / our suppliers shall have the working parameters as outlined in their quotations and the bKW and water consumption under working conditions shall not exceed the prescribed limits.*

We are enclosing Performance charts, curves and computerised selection for HVAC Low side Systems, and for the other equipment offered.

DATE

NAME OF COMPANY & SEAL

**(CONTRACTOR'S SIGNATURE)
DESIGNATION OF SIGNATORY**