



MEE/ GC5 / 131 / 2022 / Dy. CME (ES)

BUDGETARY OFFER

FOR

**SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND
GUARANTEEING THE PERFORMANCE OF 8.5 TR CAPACITY
DUCTED AIR COOLED Dx TYPE WITH AHU AC PLANT AT CHPA
HOSPITAL WITH CAMC FOR 4 YEARS IN CHENNAI PORT
AUTHORITY**

SUBMISSION ON OR BEFORE 15.02.2023

DY CHIEF MECHANICAL ENGINEER (ES)

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BUDGETARY OFFER FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND GUARANTEEING THE PERFORMANCE OF 8.5 TR CAPACITY DUCTED AIR COOLED Dx TYPE WITH AHU AC PLANT AT CHPA HOSPITAL WITH CAMC FOR 4 YEARS IN CHENNAI PORT AUTHORITY

TECHNICAL SPECIFICATION
SCHEDULE- A

1. GENERAL:-

Chennai port authority proposes to supply, installation, testing, commissioning and guaranteeing the performance of 8.5 TR capacity ducted air cooled Dx type with AHU air conditioner with 4 years CAMC for ChPA Hospital operation theatre.

2. SCOPE OF WORK:-

The scope of work includes the following:-

1. Supply, Installation, Testing and commissioning of 8.5 TR capacity air cooled Dx type Air-conditioning Outdoor unit with suitable Refrigerant.
2. Supply, Installation, Testing and commissioning of Air Handling Unit 3000 CFM suitable for 8.5 TR with 10 microns and 5 microns filters.
3. Supply and laying of Refrigerant copper pipe with all other accessories.
4. Supply and Laying of Electrical Communication cable from AHU to ODU with suitable PVC conduit pipe.
5. Supply and installation of Flexible double lining canvas to connect duct and AHU units.
6. Supply and Installation of Control panel with all other accessories.
7. Supply and installation of Additional ducting with GI sheet of 22 SWG wherever necessary.
8. Supply and installation of thermal Insulation with adhesive of 9mm thick nitrile rubber on duct.
9. Supply of Additional Refrigerant gas for top up R410a, if necessary.
10. Dismantling of existing ducted AHU from third floor plant room and handing over to RSA yard.
11. Supply of Additional Drain Pipe 40mm dia.
12. Supply of Rubber Pad for ODU.
13. Volume control Damper to connect and disconnect the AHU unit.

14. Supply and installation of Acoustic insulation inside duct from AHU.

15. The Air Conditioners have to be guaranteed for 12 months from the date of acceptance and free maintenance has to be done during the guarantee period once in 3 months.

16. During CAMC period, servicing & maintenance has to be carried out once in 3 months in addition to attending breakdown maintenance wherever required for 4 years after the completion one year guarantee period.

3. TECHNICAL SPECIFICATION:-

3.1. OUTDOOR UNIT:-

SI.No.	Description of Items	Specification
1.	Capacity	8.5 TR
2.	Nominal cooling capacity	1,02,000 BTU
3.	Refrigerant	R410a, R407c
4.	Power supply	380 – 420 V,3PH,50HZ,AC Supply
5.	No. of Compressor	1
6.	External Finish	Pure polyester powder coated GI Sheet. The Rodent mesh to be covered on the Outdoor unit
7.	Compressor Type	Hermetically Sealed SCROLL Type.
8.	Make	BLUE STAR / VOLTAS / DAIKIN / HITACHI / LG / SAMSUNG / MITSUBISHI
9.	Condenser Type	Air cooled Copper Coil FTHX type (fin & tube heat exchanger)
10.	Condenser Fan	Propeller type, Directly connected with the motor.
11.	Compressor make	DANFASS/EMERSON CO PLANT / SANYO / PANASONIC

3.2. Air Handling Unit:-

SI.No:	Description of Items	Specification
1.	Make	ZECO, BHOOPATHY, ADVANCE AIR TECH EQUIPMENT, CITIZEN.
2.	Construction	Polyurethane foam sandwich panels of 25mm thick with SS 304 grade drain tray with insulation. The AHU shall comprise of four section, Coil section, Filter section, drive motor and drive assembly in enclosed shell.
3.	Air quantity	3,000 CFM
4.	Static Pressure	75mm wg.
5.	Coil type / size	3/8 cooling coil / As per site requirement
6.	Blower	315 BDB

7.	Motor Capacity & make	3 Hp/ ABB / SIEMENS/ KIRLOSKAR / CROMPTON
8.	Filter	5 Micron & 10 Micron
9.	Unit overall size	As per site requirement

3.3. Installation and Commissioning:-

Installation, Testing and Commissioning of Air Cooled Ducted Dx type ODU with AHU units. Interconnecting Ducts and AHU with individual volume control air dampers for connecting and disconnecting the air flow system along with grills, condensing unit and Electrical panel with Rubber pad, etc.,

System shall be pressure tested with nitrogen 20kg/cm² on higher side and 10 kg/cm² on low side. Pressure shall be maintained in the system for minimum 24 hours. Then the system shall be evacuated to a minimum vacuum of 70cms of mercury and held for 24 hrs., during which time change in vacuum shall not exceed 12cms of mercury. All refrigerant piping shall be installed strictly as per the instruction, recommendation and standard procedure of air conditioning equipment manufacturers including charging of refrigerant as per the system's requirement.

After completion of installation all ducts system shall be tested for air leakage, structural arrangement and supports and joints, air tightness and visual inspection in presence of Engineer In Charge. Temperature level of 21°C shall be maintained at operation theatre.

All the associated civil works shall be carried out by the contractor without any separate cost.

3.4. Copper pipe:-

It shall be hard tube wall thickness 19 SWG seamless bright finish and carbon free with compatible with industry standard copper fitting. Fixing with proper insulation of 25mm thickness on wall / floor with required 'C' support / clamps and fasteners for both discharge and suction line. The distance between two 'C' clamps shall be 0.9 Mtrs.

4.0. Electrical Control / Communication cables:-

Supply of Electrical Control / Communication cables of copper conductor 4 Sq.mm / 2.5 Sq.mm PVC flexible sheathed cable with rated voltage of 1100V multistrand to connect AHU and ODU with the suitable PVC Conduit pipes.

5.0. Canvas:-

Supply of flexible double lining canvas made out of fire proof material with excellent acoustic properties with no condensation problem connecting between ducts and AHU for continuous flow and provided with zipper for inspection purpose.

6.0. Electrical Control panel:-

Incoming Main switch with MFM meter and RYB indication.

AHU MCB - 16A, 4 Pole, 12A Contactor OLR of suitable capacity.

DU MCB - 32A, 4 Pole, 32A Contactor - CMR (Current Monitoring Relay) of suitable capacity.

The panel shall facilitate Remote control operation HP & LP trip time delay for Fan and compressor output, Auto and Manual operation.

Electrical work shall include control units, wiring and earthing from near by supply points to the respective AHU and outdoor units, Thermostat with meters for measuring voltage and

current. All electric wiring should run inside the suitable conduits separately from the refrigerant pipes. A time delay relay / timer should be provided in the circuit. A time lag between the starting of cooling fan, condenser fan and compressor to be maintained. Control panel shall be complete with thermostatic and fan speed control starters, fuses, switches, timers, O/L Relay, Contactors, Push buttons, Indicating lamps, single phase preventers, safety cutouts, time lag relay, corded control units. The control unit shall be installed at a convenient locations as directed by Engineer in Charge.

All cables / wiring shall be done with fire retardant cables only.

All cables that are concealed in walls, ceiling and false ceiling must be installed in conduits.

The panel shall be fabricated from high quality 14 gauge sheet and shall be powder coated.

Microprocessor based remote control unit shall be provided for Dx ODU and AHU Air conditioning system. It shall operate the entire Air Conditioning system by setting working parameters of individual AHUs and Dx ODU units.

The microprocessor based controller shall control

- i) ON / OFF as an individual unit.
- ii) Indication of operation condition of each system such as Temperature, current and other essential parameters.
- iii) Anti- recycle time delay to protect compressor for instant start / restart.
Compressor shall be interlocked with AHU fan, so that it cannot start unless fan is ON.

The Contractor shall be solely responsible for the completeness and correctness of the internal wiring and for the proper functioning of connected equipments and entire system to demonstrate 21°C at all the three operation theatre simultaneously with inbuilt indication for testing.

7.0. GI DUCT:-

Supply and erection of GI ducts of 24 SWG size straight / smooth curve and shall have neatly finished joints. All joints shall be made of air tight sealant using 5mm neoprene rubber gaskets. The gaskets fixed with adhesive material. All ducts shall be rigid and shall be adequately braced. Wherever required standing seams tee or angles of ample size to keep the ducts true to shape and to prevent from buckling / vibration etc., shall be provided. The ducts shall be supported on hangers at spacing of 1.5 Mtrs., each with MS angles and 12mm fasteners from ceiling / walls.

8.0.THERMAL INSULATION:-

Supply and fixing of EDPM / Nitrile rubber with adhesive for Thermal insulation of 13mm thickness over GI duct with proper masking the joints.

9.0. ACOUSTIC INSULATION:-

Supply and fixing the Duct acoustic insulation using 13mm thick Nitrile rubber shall be carried out to minimum distance of 6 Mtrs. from the outlet of each AHU. The nitrile rubber shall be covered with RP tissue paper and perforated Aluminum sheets of 28 gauge.

10.0. DRAIN PIPE:-

Supply and fixing of Drain PVC pipe of 40mm size fixing on wall / ceiling with supports and clamps with distance of 0.9 Mtrs.each with slope of as guided by the EIC.

11.0. VOLUME CONTROL DAMPERS:-

Volume control Air Dampers with handle for connecting and disconnecting of AHU units. Made out of 16 SWG GI sheet. Damp frame, lever, link etc., for proper operation and control with ON & OFF position clearly marked.

12.0. Disconnecting the existing old AHU units and its accessories and shifting it to ground floor of hospital and to RSA yard as instructed by EIC.

13.0. Disconnecting / Dismantling the existing old cooling tower of 80 TR capacity and shifting it to ground floor of hospital and to RSA yard as instructed by EIC.

14. TESTING AND COMMISSIONING:-

After installation of the AC units the firm has to carry out vacuum test, pressure test and leak test and commissioning of the air conditioner plants as per prevailing IS.

The Air Conditioners units have to be guaranteed for 12 months from the date of acceptance and free maintenance has to be done during the guarantee period once in three months.

15. CAMC FOR 4 YEARS AFTER THE GUARANTEE PERIOD

The scope of comprehensive annual maintenance contract (CAMC) shall include the supply of necessary spares and consumables required during CAMC period. The ChPA shall not supply any of the consumables gas and spares. The 4 years CAMC has to be carried out after the completion of FIRST ONE YEAR guarantee period. It includes the following:-

- i) Cleaning the filters and fins and AHUs / ODU's.
- ii) Checking the wiring and inbuilt PCBs.
- iii) Cleaning the grills.
- iv) Checking the Condenser fan and cleaning the blower and its belt.
- v) Checking the Compressor and lube oil filling.
- vi) Checking and cleaning Air cooled condenser and evaporators.
- vii) Running the Compressor and checking the load.
- viii) Tinkering and painting the rusted portion of the AC plant.
- ix) Gas charging and maintaining sufficient pressure.
- x) Replacing of defective spares whenever necessary to commission the AC plant.
- xi) Ensuring sufficient cooling in Operation Theatre.
- xii) The service to be carried out quarterly i.e. 4 times in a year during CAMC in addition to attending of breakdown whenever required.
- xiii) All the minor breakdowns shall be attended within 24 Hrs. and major breakdowns shall be attended within 72 Hrs. from receipt of intimation from EIC.
- xiv) The firm who has their own service centre/authorized service centre in Chennai region only will be considered for submitting their offer.

16.0 OTHER TERMS AND CONDITIONS

- a. The technical Specification Schedule 'A' and Schedule of prices and Quantities Schedule 'A1' to read in conjunction to ensure the actual supply and works involved.
- b. For Item – I : The entire work shall be completed within 90 days from the 7th day of issue of order.

For Item – II: Servicing & maintenance has to be carried out once in 3 months for 4 years after the completion one year guarantee period.

- c. The entire work shall be guaranteed for a period of 12 months from the date of acceptance of the work and also additional guarantee if extended.
- d. The firm shall quote the rates only in the Trust format as in Schedule 'A1'.
- e. The Trust will not be responsible for any loss or damage of the men/materials /tools/ plants engaged by the firm during the work at site or transportation.
- f. The firm will be responsible for any loss/damage to the Trust's property during the work at site.
- g. The firm shall use their own conveyance for transporting / rigging of AC plants to the respective site for installation.
- h. The firm shall quote the address of their own service centre in Chennai.
- i. Four free services shall be taken during guarantee period.
- j. The firm who has their own service centre/ authorized service centre in Chennai Region only will be considered for evaluation.
- k. If any clarification, the firm shall contact Dy.CME (ES)/ S.E.(ES)/Ex.E.(G) at Administrative office, Old building,2nd floor, phone 044-25312542/ 25312428 /25312626

**DY.CHIEF MECHANICAL ENGINEER (ES)
CHENNAI PORT AUTHORITY**

BUDGETARY OFFER FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND GUARANTEEING THE PERFORMANCE OF 8.5 TR CAPACITY DUCTED AIR COOLED Dx TYPE WITH AHU AC PLANT AT CHPA HOSPITAL WITH CAMC FOR 4 YEARS IN CHENNAI PORT AUTHORITY

SCHEDULE PRICES AND QUANTITIES

SCHEDULE 'A1'

ITEM-1

SI. No:	DESCRIPTION OF THE ITEM	UNIT	QTY	RATE/UNIT RS	AMOUNT RS
1	Cost for supply of 8.5 TR Capacity Dx type Outdoor unit with R 410a refrigerant as per schedule 'A'.	No.	4		
2.	Cost for Supply of AHU,3000 CFM Unit, suitable for 8.5 TR with 10 micron and 5 micron filters as per schedule 'A'.	No.	4		
3.	Installation, testing and commissioning of 8.5 TR capacity air cooled Dx type outdoor unit as per schedule 'A'.	No.	4		
4.	Installation, testing and commissioning of 8.5 TR AHU units as per schedule 'A'.	No.	4		
5.	Supply and laying of Refrigerant copper pipe from ODU to AHU with all other accessories as per Schedule 'A'.	Mtrs.	90		
6.	Supply and Laying of Electrical Communication cable from AHU to ODU with PVC conduit pipe as per Schedule 'A'.	Mtrs.	100		
7.	Supply and installation of Flexible double lining canvas to connect duct and blower units as per Schedule 'A'.	No.	4		
8.	Supply and Installation of Control panel with all other accessories as per Schedule 'A'.	No.	4		
9.	Supply and installation of Additional ducting with GI sheet of 22 SWG as per Schedule 'A'.	Sq.Ft.	500		
10.	Supply and installation of thermal Insulation of 13mm thick nitrile rubber on duct as per Schedule 'A'.	Sq.Ft.	500		

11.	Supply of Additional Drain Pipe 40mm dia as per schedule 'A'.	Mtrs.	30		
12.	Supply of Rubber Pad as per schedule 'A'.	No.	4		
13.	Volume control Air Damper to connect and disconnect the AHU unit as per schedule 'A'.	Set	4		
14.	Supply and installation of Acoustic insulation inside the duct as per schedule 'A'.	Sq.Ft	500		
SUB TOTAL – I in Rs.					

ITEM - II

SI. No:	DESCRIPTION OF THE ITEM	UNIT	QTY	RATE/UNIT RS	AMOUNT RS
1.	Dismantling of existing duct along with AHUs from Third floor Plant Room and handed over to RSA yard as per schedule 'A'.	No.	4		
2.	Dismantling the existing old cooling tower of 80 TR capacity and shifting it to ground floor of hospital and to RSA yard as instructed by EIC	No.	1		
SUB TOAL –II					

ITEM - III

COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

SLNO	DESCRIPTION	UNIT	QTY	RATE/ UNIT/ YEAR	AMOUNT/YEAR (RS)
1	Charges for comprehensive annual maintenance contract for 8.5 TR capacity Air cooled ducted Dx type with AHU AC plant-as detailed in schedule 'A' <u>Note:</u> The firm shall service/recondition of air conditioner plants once in a period of 3 months(i.e. 4 times in a year) as per Schedule 'A'. 1 st Year	No.	4		
2.	Charges for CAMC of above AC plant 2nd year	No.	4		
3.	Charges for CAMC of above AC plant 3rd year	No.	4		
4.	Charges for CAMC of above AC plant 4th year	No	4		
SUB TOTAL – III IN Rs.					
GRAND TOTAL= SUB TOTAL - I + SUB TOTAL - II + SUB TOTAL – III IN Rs.					
GRAND TOTAL IN RS.					

(Rupees _____ only).

Note:1) The rate quoted by the firm shall be inclusive of all taxes and duties excluding GST.

2) The firm shall furnish the tax invoice for GST separately as per GST Act/Rules.

Firm's Sign& Seal

SPECIAL CONDITIONS OF CONTRACT

SCHEDULE - 'B'

1. The Tenderer shall examine carefully the General Rules and Directions, General and Special Conditions of Contract, Technical Specifications and Drawing and Shall inspect the site to acquaint himself with the nature of work local working conditions etc., for the purpose of making his offer on his own responsibility.
2. It shall be open to the Chief Mechanical Engineer to nominate one or more of his representatives to supervise the work and to satisfy about the quality of materials and workmanship as required by the relevant regulation and as mentioned in technical specifications. The decision of the Chief Mechanical Engineer shall be final as regards the quality of materials and workmanship shall be binding on the contractor.
3. The prices shall be firm and not subject to fluctuation at any stage till the completion of the contract. The prices quoted must be filled in ink both in figures and words in the Schedule of prices attached with the Tender Document the prices quoted shall be inclusive off taxes, duties, freight, insurance, unloading etc. and any correction shall be supported by the Tenderer's signature there against.
4. The offers with specifications very near to those stated in the Technical Specifications may also be given consideration as alternate besides the main offer with full specification. The Tenderer shall give clear indication in his tender of the items he does not propose to include in the tender. Where such clear mention is not given it will be construed that the tender covers all parts required for completion of work.
5. The Tenderer shall quote separately for any items which have not been specifically mentioned in the specification but which are found necessary for completion, efficient installation of LT Panel and other than those items which are not covered under 'works not included'.
6. The tender shall be accompanied by sufficient details of materials included in the offer with catalogue and sketches wherever if necessary for comprehensive assessment of its merits and performance
7. It will be entirely the Tenderer's responsibility to take required steps to adequately safeguard the personnel carrying out the work and to ensure that the work is carried out in such a manner that maximum safety to the personnel is assured.
8. All materials and components included in the contract shall conform to the relevant Indian Standard Specification wherever they exist.
9. The decision of the Chief Mechanical Engineer or his representative regarding the quality of any materials used on the work will be final and binding on the Tenderer. The Tenderer shall remove from the site of work any material rejected as unfit for use on the work at his own cost as soon as he is ordered to do so, failing which the Chief

Mechanical Engineer or his representative shall remove such material from the site of work and shall deduct the cost incurred by such removal by the Board from any money due to the Tenderer.

10. The Tenderer shall co-ordinate his work with that of other Tenderers executing other works in the site and plan his work as to minimise inconvenience to others in the work site.
11. The watch and ward and storage of materials will be Tenderer's responsibility and the Board shall not be held responsible for any loss of the material.
12. The Tenderer shall be deemed to have satisfied himself before submitting the tender as to the correctness and sufficiency of his tender for the work and of his price stated in the schedule as to cover his entire obligation under the contract for completion of the work.
13. For Harbour entry pass and direction to site of work for inspection for the purpose of making the offer, the Tenderer shall contact the "Dy.CME (ES), 2ND floor of the Old Admn. Building, Chennai Port Authority. Telephone Nos. 25312542.

**Dy.CHIEF MECHANICAL ENGINEER(ES)
CHENNAI PORT AUTHORITY**

GENERAL CONDITIONS OF CONTRACT
SCHEDULE - 'C'

1. **DEFINITIONS AND INTERPRETATIONS**

In the contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) "BOARD" means the Board of Authorities of the Port of Chennai as constituted under the Major Port Authority's Act, 1963 as amended from time to time.
- (b) "CHIEF MECHANICAL ENGINEER" means the Chief Mechanical Engineer of the Chennai Port Authority.
- (c) "CHIEF MECHANICAL ENGINEER'S REPRESENTATIVE" means any Resident Engineer or Assistant of the Chief Mechanical Engineer or any clerk of works detailed from time to time by the Chief Mechanical Engineer to perform the duties as may be specified in the contract.
- (d) "CONSTRUCTIONAL WORKS" means all appliances or things or whatsoever nature required in or about the execution, completion or maintenance of the 'Works' or 'Temporary Works' (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.
- (e) "CONTRACT" means the General Conditions, Specifications, Drawings, Priced Bill or Quantities. Schedule of Rates, Prices if any) tender and contract agreement.
- (g) "CONTRACTOR" means the person or persons, firm or company whose tender has been accepted by the Board and Tenderer's permitted assigns. "CONTRACT PRICE" means the sum named in the tender subject to such conditions thereto or deductions there from as may be made under provisions hereinafter contained.
- (h) "DRAWINGS" means the drawings referred to in the contract agreement and any modifications of such drawings approved in writing by the Chief Mechanical Engineer and such other drawings as may from time to time be furnished or approved in writing by the Chief Mechanical Engineer.
- (i) "SITE" means the lands and other places on/under/in/of, through which the work ' are to be executed or carried out and any other lands or places provided by the Board for the purposes of the contract.
- (j) "TEMPORARY WORKS" means temporary works of every kind required in the execution, completion or maintenance of the works and which do not form an item of the 'work' or 'works'.
- (k) "WORKS" means the works to be executed in accordance with the contract under the relevant schedules.

- (l) "AUTHORITY'S STORES" means the storage yards for materials of the Authority anywhere in the Harbour premises.

2. **EXTENT OF CONTRACT**

The contract comprises, the construction, completion and maintenance of the 'works' and the provision of all labour, materials constructional Generator, temporary works and every thing whether of a temporary or permanent nature required in and for such construction, completion and maintenance so for as the necessity for providing the same is specified in or reasonably to be inferred from the contract.

3. **COMPLETION PERIOD**

For Item - I : The entire work shall be completed within 90 Days from the 7th day of issue of order.

For Item – II : The entire work shall be completed within 30 Days from the date of completion of Item – I.

For Item – III: The entire work shall be completed within 4 years after completion of Guarantee period.

- a) In case of delay in the progress of work, the Chief Mechanical Engineer shall issue to the Tenderer a memo in writing pointing out the delay in the progress and calling upon the Tenderer to explain the causes for the delay within three days of the receipt of the memo. If the Chief Mechanical Engineer is not satisfied with the explanation offered, he may forfeit the security deposit and/or withhold payment of pending bills in whole or in part. The Tenderer may appeal to the Chairman against the order of the Chief Mechanical Engineer forfeiting the Security Deposit and withholding of bills within a week of the said order and the decision of the Chairman shall be final and binding on the Tenderer.
- b) If the security deposit or any part thereof is forfeited by an order of the Chief Mechanical Engineer and such order become final, the Tenderer shall make good the security deposit or part of such deposit so forfeited within a fortnight thereafter or such further time as the Chief Mechanical Engineer may grant failing which the Chief Mechanical Engineer may determine the Contract.

4. **GUARANTEE PERIOD**

- (a) The supply / works shall be guaranteed for a period of 12 months (one year) from the date of acceptance of the work. Any defect observed during the guarantee period, the same shall be rectified by the firm free of cost. SD will be refunded after completion of guarantee period.
- (b) The contractor shall ensure no damage to the any Authority Properties during contract period. If any, the same shall be rectified and / or replaced at free of cost by the Tenderer.

- (c) If during this twelve month guarantee period any defects are noticed, which in the opinion of the Chief Mechanical Engineer are due to bad materials used and/or defective workmanship the Tenderer shall be required to carryout at the Tenderer's cost, such repairs, as the Chief Mechanical Engineer considers necessary or in the event of the Tenderer failing to do this within a notified time the Chief Mechanical Engineer may arrange for such repairs to be carried out and deduct the cost of such rectification of the defects from the amount retained, without prejudice to the recovery of any amount that may have been spent in excess of the deposit. For purposes, the period of 12 months shall count from the date of handing over of the completed part or whole of works by the Tenderer to the Chief Mechanical Engineer.
5. (a) The Chief Mechanical Engineer reserves to himself the right to cancel the contract for unsatisfactory progress in the work at any stage.
- (b) **CONTRACTOR'S SUPERINTENDENCE**
The Tenderer shall give or provide all necessary superintendence to the complete satisfaction of the Chief Mechanical Engineer during the execution of the works and as long thereafter as the Chief Mechanical Engineer may consider necessary. The Tenderer or a competent and authorised agent or representative approved in writing by the Chief Mechanical Engineer which approval may at any time be withdrawn is to be constantly on the work and shall give his whole time to the superintendence of the same. Such authorised agent or representative shall receive on behalf of the Tenderer directions and instructions from the Chief Mechanical Engineer or (subject to the limitations of Clause 9 hereof) the Chief Mechanical Engineer's representative.

6. **PROGRAMME TO BE FURNISHED**

- As soon as practicable, after the acceptance of his tender, the Contractor shall, if required, submit to the Chief Mechanical Engineer for his approval a detailed programme showing the order of procedure and method in which he proposes to carry out the works and shall whenever required by the Chief Mechanical Engineer furnish for his information particulars in writing of the Contractor's arrangements for carrying out the works and of the constructional plant and temporary works which the Contractor intends to supply, use or construct, as the case may be submission to and approval by the Chief Mechanical Engineer of such programme or furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the contract.
7. If the progress of work is held up owing to circumstances which, in the opinion of the Chief Mechanical Engineer are beyond the control of the Tenderer, such as war, stormy weather etc., the Chief Mechanical Engineer may at his discretion, grant to the Tenderer such extension of time as he considers reasonable for the completion of the works. The grant of such extension of time shall not bestow on them for any claim or compensation/extra payment at a future date whatsoever.
8. The materials used on the work must be of first class variety corresponding to relevant ISS and other specifications laid in the contract. The work must be carried out in a

workmanlike and expeditious manner and quality of work at each stage shall be subject to approval of the Chief Mechanical Engineer. The Chief Mechanical Engineer's decision as to the quality of such materials and work shall be final and binding on the Tenderer.

9. The Tenderer shall maintain at the site or work an Inspection Register, which must be produced by the Tenderer or his agent whenever called upon to do so by the Chief Mechanical Engineer or his representative during their inspection of the work. If the rectifications ordered to be done are not carried out within the time specified by the Chief Mechanical Engineer, the Chief Mechanical Engineer shall have the right to get such work done by any other agency and to recover the cost thereof from the Tenderer. This inspection register shall be the duplicate copying type so that one copy of the entries get recorded in the Chief Mechanical Engineer's Office. The Tenderer shall not make any entry of any kind in this register.

10. **CHIEF MECHANICAL ENGINEER'S REPRESENTATIVE**

The duties of the Chief Mechanical Engineer's Representative are to watch and supervise the works and to test and examine any materials to be used or workmanship employed in connection with the works. He shall have no authority to relieve the Contractor of any of his duties or obligations under the contract or except as expressly provided hereunder to order any work involving delay or any extra payment by the Board or to make any variation or of in the works.

11. **WORK TO BE TO THE SATISFACTION OF THE CHIEF MECHANICAL ENGINEER:**

The Tenderer shall execute, complete and maintain the works strictly in accordance with the contract to the satisfaction of the Chief Mechanical Engineer and shall comply with and adhere strictly to the Chief Mechanical Engineer's instructions and directions on any matter (whether mentioned in the contract or not). The Tenderer shall take instructions and directions only from the Chief Mechanical Engineer or his representatives.

12. **LIQUIDATED DAMAGES/LATE DELIVERY CHARGES:**

The Liquidated Damages/Late Delivery Charges shall be deducted from any amount payable to or to be payable to the contractor/supplier including encashment of Bank Guarantee or any securities/guarantees, if any available with the Port.

The maximum amount of Liquidated Damages/Late Delivery Charges shall be worked out based on the total contract/supply order value inclusive of all taxes and duties. In case of part/portions of the contract work/supply order completed and taken possession by the Authority and the Authority operates/can be made for operation of the part portion/supply order, the calculation of Liquidated Damages will be restricted to the uncompleted/undelivered value of the work/supply order subject to the amount of the maximum percentage prescribed for the Liquidated Damages/Late Delivery Charges of the total value of the contract/supply.

The Liquidated Damages/Late Delivery Charges shall be ½% of the contract value per week or part thereof (a week is defined as 7 days inclusive of holidays) subject to a maximum of 5 % of the contract value.

If the contract/supply order is delayed after giving due notice, the contract/supply order may be cancelled by the competent authority with the condition that any additional expenditure incurred by the Port Authority in completing the work/supply order will be recovered from the contractor/supplier of the cancelled contract/supply order for non-performance/delay in the execution of the contract/supply.

13. SUPPLY OF MATERIALS AND LABOUR

Except where otherwise specified in the contract the Tenderer shall at his own expense supply and provide all the temporary works, materials both for temporary and for works under the contract, labour (including the supervision thereof) transport to or from the site and in and about the works and other things of every kind required for the construction, completion and maintenance of the works. The Tenderer shall not hire out any item or equipment brought by him in connection with the execution of the work under the contract to any other party in connection with any work of the latter in the Port, without the written permission of the Chairman. Such permission may or may not be granted by the Chairman.

14. The Tenderer shall at his own cost make due arrangements for the proper watch and safety of all materials and supplied to him by the Board for the use on this work. He shall not remove such constructional or materials from the site without the permission of the Chief Mechanical Engineer. If any of these materials are lost or damaged in any way due to negligence or carelessness on the part of the Tenderers or any of his employees, the cost for the materials lost or damaged and penalty for such negligence or carelessness of the Tenderer as determined by the Chief Mechanical Engineer shall be recovered from the Tenderer from any moneys due to him or to become due to him.

15. ASSIGNMENT AND SUB-LETTING

The Tenderer shall not assign the contract or any part thereof or any benefit or interest therein or there under without the written consent of the Board. The Tenderer shall not sublet the whole of the works. The Tenderer shall not sublet any part of the works without the written consent of the Board and such consent if given shall not relieve the Tenderer of any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any Sub-Tenderer and his agents, servants or workmen as if they were the acts, defaults, or neglects of the Tenderer, his agents, servants or workmen provided always that the provision of labour on a piece work basis shall not be deemed to be a subletting of assignment of benefit or interest under this clause.

16. The Tenderer shall be solely responsible for any accident, damage or injury caused to any of his employees or the Board's employees in the execution of the works and shall hold the Board blameless in respect thereof and also in respect of any claims made by any person in the employment of the Tenderer for any reason whatsoever.
17. (a) The Tenderer shall be responsible for all structural or decorative damage to Board's or his own property and injury caused by the works or workmen in his employment to persons, animals or things and shall indemnify the Board against any claims or actions arising there from. He shall also be responsible for any

injuries or damage caused to the works by inclemency of weather outbreak of fire and shall rectify at his own cost all such damage and thoroughly complete the works.

(f) The Tenderer shall be solely responsible for reporting the Board and Police Department immediately any serious or fatal accidents at any place belonging to the Board including premises leased to the Board to any of his employees/ workmen engaged by him.

18. The Tenderer shall not house any of his workmen at or near the site. He shall not construct any structure even of a temporary nature for any other purpose on Board's premises except with the written permission of the Chief Mechanical Engineer and any such construction so put up shall be removed by the Tenderer whenever the Chief Mechanical Engineer calls upon the Tenderer to remove.

19. The Tenderer shall not operate the workshop at the site for the purpose of this contract beyond what is absolutely necessary for the execution of this contract, the necessity for and extent of which the Chief Mechanical Engineer's decision shall be final. Such necessary structures shall be non-inflammable materials as approved by the Chief Mechanical Engineer.
Only vehicles licensed by the Board will be allowed inside the Harbour premises.

20. Measurements taken by the person authorised by the Chief Mechanical Engineer to take them will be binding on the Tenderer who will always be given the opportunity of witnessing the measurements. The contractor should submit a bill in the Authority's prescribed billing format.

21. **PAYMENT TERMS:**

For Item - I

100% payment will be made after the supply, installation and taking over of entire systems.

For Item – II : 100% payment will be made after the Completion of entire work.

For Item – II CAMC

Payment will be made Quarterly on pro – rata basis through e-payment after satisfactory completion of the work.

Income tax @ 2% shall be levied U/S 194 (c) of Income Tax Act 1961. Similarly, Tamil Nadu Value Added Tax as per Section 13 of T.N.VAT Act 2006 shall also be deducted. In case of exemption from the above levy necessary non-deduction certificate shall be produced by the tenderer from Income Tax / Commercial Tax office respectively.

The tenderer shall quote the Bank Account details for the payment through ECS along with PAN. A copies of the Pan Card, ESI regn No. and Service Tax Regn No. shall be furnished.

(iii) Deposited 3 % of total contract value by the contractor as security deposit under the agreement will be refunded to the contractor after satisfactory completion of the guarantee period or extended guarantee period.

22. TAXES

- i) Tenderers will examine the various provisions of the Central Goods & Services Tax Act-2017 (CGST)/ Integrated Goods & Services Tax (IGST)/ Union Territory Goods & Services Tax (UGST) respective State's State Goods & Services Tax Act (SGST) also, as notified by Central/State Government and as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- ii) The rate quoted by the Contractor/Supplier shall be inclusive of all Taxes and Duties other than GST. Applicable GST will be paid by ChPA based on the Tax Invoice.
- iii) The Financial evaluation will be based on the total base price quoted by the Contractor / Supplier excluding GST.
- iv) The firm shall furnish the Tax invoices as per GST Act/Rules in the name of the Chennai Port Authority by mentioning the GSTIN of ChPA and indicating amounts of GST Separately. The GSTIN of ChPA is **33AAALC0025B1Z9**.
- v) The contractor /Firm shall remit the GST amount in the invoice to the Government within the due dates and also file the returns by mentioning the GSTIN of ChPA to enable ChPA to avail eligible Input Tax Credit (ITC).
- vi) The contractor/ firm shall indemnify Chennai Port Authority from any loss of eligible ITC of GST paid by it to the Contractors/Suppliers based on their tax invoice, due to non-payment of GST or non-filing of GST returns by the contractor/firm or non compliance of GST Act/provisions. The contractor/firm shall remit such GST amount with applicable interest and penalties to the ChPA within 7 days from the date of intimation by the ChPA about non-availing of eligible ITC. ChPA also reserves its right to deduct such GST amount with interest and penalties from the subsequent bills, Security Deposit or any amount due to the contractor by ChPA".
- vii) Applicable statutory recoveries including TDS under Income Tax, TDS under GST provisions etc., will be deducted/recovered while accounting for or making payment to the Contractor/Supplier as per the applicable law.
- viii) If the Tenderer / Supplier who are default in GST compliance, ChPA will not accept for payment.
- ix) Bill amount along with GST shall be paid if GST is reflected in the GST portal or if the tenderer / supplier submits Tax Invoice and copy of the GSTR – 1 filed along with remittance details.
- x) If the Tenderer / supplier submits Tax Invoice and undertaking along with Tax Invoice duly indemnifying Chennai Port Authority from any loss of eligible Input Tax Credit of GST due to nonpayment of GST or non filing of GST Returns or non compliance of GST Act / Provision. Bill amount along with GST shall be paid. However,

a) If such Tenderer / Supplier does not comply with GST Act, i.e. Filing of Returns / Remittance of GST within stipulated date, the Port shall not release the subsequent Running Account bills:

b) In First & Final Bill passed cases, the Port will adjust the defaulted GST from security deposit / any amount payable to them.

TDS under GST

(i) Section 51 of CGST Act and 1st proviso to section 20 of IGST Act make it obligatory for CHPA to deduct TDS @ 2% on the “amounts paid to vendor” or amounts credited to the account of the Vendor/Contractor.

(ii) If the purchase is made from a vendor located in Tamil Nadu, then the TDS of 2% will be @ 1% under SGST and another 1% will be under CGST. If the purchase is made from a vendor located in a State/UT other than Tamil Nadu, then the TDS of 2% will be under IGST.

(iii) This GST TDS is mandatory in the payments/purchase are made for the contract value more than Rs.2,50,000/-. It does not depend on the individual invoice values, but it depends on the “Value of Contract”.

23. FINANCIAL EVALUATION:

The completed works are evaluated based on total value of work order excluding Taxes (Service tax / GST).

24. In the event of the death, insanity or insolvency of the Tenderer or in the case of the Tenderer being a partnership on a dissolution of the firm of Tenderer or in the case of the Tenderer being a company governed by Companies' Act 1956, the winding up of the company the contract shall be terminated on the happening of the event above said and all accepted and acceptable work shall be measured up and paid for, to the person or persons legally entitled to receive payment for work done and on his or their executing a bond indemnifying the Board against all claims that may be made in respect of payments made by the Board by persons claiming from the Tenderer or others, in respect of work done by the Tenderer prior to the termination of the contract.

25. In the event of the contract being terminated at any stage due to unsatisfactory progress of work as per Tender Specification, the Chief Mechanical Engineer shall have the right to execute the portions of works left incomplete using the Board's labour or any other agency and the Tenderer shall be liable to make good any loss incurred by the Board on this account. Such amounts shall be recovered from any moneys due to or to become due to the Tenderer.

26. (i) If the Tenderer claims that the decisions or the instructions of the Chief Mechanical Engineer are unjustified and that accordingly he is entitled to extra payments on account thereof, he shall forthwith notify this to the Chief Mechanical Engineer to record his decisions and the reasons therefore in writing and shall within two

weeks state his claims in writing to the Chief Mechanical Engineer thereafter. The Chief Mechanical Engineer shall thereafter within four weeks of the receipt of the claim reply negotiations or discussions immediately thereafter within a further four weeks, the question of liability for such payments will be treated as one of disputes.

- (ii) In the Contract whenever there is a discretion or exercise or will by the Chief Mechanical Engineer during the progress of work, the mode or manner of the exercise or discretion shall not be a matter of legal adjudication.
- (iii) Wherever the Board is given discretion to do any act under the contract, the exercise of the discretion by the Board shall be final, conclusive and binding on all parties and the manner of exercise of such discretion shall not be called in question and the matter cannot be referred to court of law.
- (iv) The decision of the Chief Mechanical Engineer shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specifications, designs, drawings and instructions and as to the quality of workmanship or material used on the work or any matter arising out of or relating to the specifications, designs and drawings and instructions concerning the works or the execution of or failure to execute the same arising during the course of works. The above shall not be the subject of Legal adjudication and in no case shall the work be stopped consequent on such a dispute arising and the work shall also be carried out by the Tenderer strictly in accordance with the instructions of the Chief Mechanical Engineer.
- (v) Any litigation arising out of this agreement, shall only be adjudicated before the competent court of law within the jurisdiction of the Hon'ble High Court of Madras.

27. REMOVAL OF WORKMEN

The Tenderer shall employ in and about the execution of the works only such persons as are careful, skilled and experience, in their several trades and callings to the approval of the Chief Mechanical Engineer. The Chief Mechanical Engineer shall be at liberty to object to and require the Tenderer to remove from the works any persons employed by the Tenderer in or about the execution of the works who in the opinion of the Chief Mechanical Engineer, misconducts himself or incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the written permission of the Chief Mechanical Engineer.

- 28. (i)** The Tenderer shall confirm to and comply with the regulations and byelaws of the State or Central Government or of the Board and of all other local authorities such as Corporation of Madras, the Tamil Nadu Electricity System, the Chief Electrical Inspector to the Government of Tamil Nadu, the Government Customs and Police Departments, Fire Services, the provisions contained in the various Labour Acts enacted by the State Legislature and Central Parliament in force and the rules made thereunder including those under Minimum Wages Act, Factories Act, the Indian Electricity Act and rules framed under it, Workmen Compensation Act, Provident Fund Regulations Act, Employees Provident Fund Act, 1961 and

scheme made under the said Act, Health and Sanitary arrangements for workers etc. and Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 etc. for welfare and protection of works, workers or for the safety of the public and other insurance provisions.

- (ii) The Board shall not be liable for the failure of the contractor in confirming to the provision of the Acts, Rules and regulations etc., referred to in the above para and in case of any contravention of the provisions of the Acts, Rules regulations etc. the contractor shall keep the Board indemnified against any loss, cost and damage in the event of any action being taken for contravention.
- (iii) If any enhancement in the rates of wages becomes payable as a result of the implementation of the Chief Labour Commissioner's interpretation of the Contract Labour (Regulation and Abolition) Central Rules, 1971 up to and including an increase of 10% of the wages shall be borne by the Tenderer and enhancement in excess of 10% would be borne by the Port Authority.

(iv) **ESI CLAUSE:**

The details of employees proposed to be engaged shall be furnished to this office before the commencement of the work.

(a) As per the Govt. Notification dated 20.07.2009, Chennai Port Authority has registered under the ESI Act on 26.09.2012 with ESI Corporation and provision of ESI Act, 1948 are applicable to Chennai Port Authority, a Social Security Act, is applicable to Factories using power and employing 10 or more personnel and establishment employing 20 or more persons and drawing wages/salary up to Rs. 21,000/- per month. Workers covered under ESI Act, are entitled for full medical care for self and family. Besides, cash benefit in the event of sickness, maternity and employment injury. Accordingly, the contractual/casual employees drawing wages up to Rs. 21,000/- per month employed either directly by Port Authority or through contractor are covered under ESI Act, 1948. It is obligatory on the part of the employer to calculate and remit ESI contribution comprising of employers' share of 3.25% plus employees' share of 0.75% which is payable on or before 21st of the following month, to which the salary relates.

(b) In case of Contractor employs more than 20 employees, they should register their name with ESI as per ESI Act, 1948 and obtain ESI Code. Both Employers share of 3.25% and Employees contribution of 0.75% (recovered from employees), totally 4 % to be paid as contribution to ESI in their Code on or before 21st of following month to which the salary relates and acknowledgement for the same shall be submitted to the Port while claiming the bill. The bill without the acknowledgment of ESI contribution will not be entertained. In case the contractor has not paid the ESI contribution same will be recovered in the running bill and paid to the ESI Corporation in contractor's code. The delay in payment of contribution payable under the Act may be recovered as an arrear of Land Revenue.

(c) In case the contractor employs less than 20 employees, the list of employees' names, their father's name, identification proof, one passport photo shall be submitted to the Port

Authority. The contribution of ESI amount, both Employers share of 3.25% and Employees contribution of 0.75% (recovered from Employees salary), totally 4 % shall be paid by the Contractor in the Chennai Port Authority Code on or before 21st of the following month to which the salary relates or otherwise payment to the contractor will be withheld. If the contractor fails to comply with the above instruction, then the Principal Employer (Chennai Port Authority) will make payment to the ESI Corporation. Such amount will be deducted from any amount due to the contractor. The delay in payment of contribution payable under the Act may be recovered as an arrear of Land Revenue.

(d) As per the above government Notification i) All intending tenderer at the time of Tender shall disclose all necessary documents as to whether they are covered under ESI Act or not.

ii) In case they are covered under ESI Act, they have to furnish the details of registration.

iii) In case the tenderer does not possess ESI Registration at the time of participation in the Tender, then they should obtain registration under ESI Regulations before award of the work by Chennai Port Authority and submit the same within 30 days from the date of issue of work order. Any payment towards the work order will be made only after the ESI registration.

iv) The Tenderer shall submit his first bill together with evidence of having obtained registration under ESI regulations and only then the bill will be processed for payment. Subsequently, the Tenderer should periodically submit to Chennai Port the Form 6 prescribed under ESI Regulations along with the proof for having remitted his dues under ESI Regulations in respect of the workers / labours employed for the work awarded by Chennai Port to facilitate making payment for the bills of the Contractor.

v) In case, the Tenderer is not covered under ESI Act or exempted, they would furnish necessary documents along with an affidavit in original affirming before a first class Judicial Magistrate in a Non Judicial Stamp Paper worth Rs.20.00 to that effect.

vi) In case they are not covered under ESI Act, they must additionally indemnify ChPA against all damages & accident occurring to his labour in a Non – Judicial Stamp paper worth Rs.100/-

(v) Insurance

The Tenderer advised to take necessary insurance at his cost for his employees, materials and machineries etc.

29. Foreclosure of Contract:

I. Notwithstanding anything in the contract agreement the contractor agrees that the Authority (on its own or acting on behalf of the Government of India) or the Government of India shall be entitles to foreclose the contract on occurrence of the following events:

- i. In the event of breach of contract by the Contractor
- ii. An emergency or
- iii. for national security and /or national interest and /or public reasons.

II. Upon the occurrence of the events specified in the above I (i),(ii) and (iii) above the Authority or Government of India reserve the right to fore close the contract at any point of time during the contract period on the issue of the termination notice under provision of the termination clause , the Authority shall not be liable to compensate the contractor or any other person for any losses or estimated loss of profits during such period.

30. The Chief Mechanical Engineer reserves to himself the right to alter the specification or design of the works at any stage of the work and also to make additions or omissions or alterations.

31. **Further Instructions**

The Chief Mechanical Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the works such instructions as necessary for the purpose of the proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

32. Any notice to the Tenderer shall be deemed to be sufficiently served if given or left in writing at his usual or last known place of abode or business or at site.

33. All payments made by the Board to the Tenderer under this contract shall be rounded off to the nearest paisa.

34. (i) The contract is liable for cancellation if either the Tenderer himself or any of his employee is found to be a person who has held a Class I post under the Board immediately before retirement and has, within two years of such retirements, accepted without obtaining the previous permission of the Board of the Chairman as the case may be an employment as Tenderer for, or in connection with the execution of public works, as an employee of such Tenderer.

(ii) If any contract is terminated on account of the failure of the Tenderer to comply with the above clause the Board shall be entitled to recover from him such damages as may be determined by the Chief Mechanical Engineer with due regard to the inconvenience caused to the Authority on account of such termination without prejudice to the Authority's right to proceed against such officer.

35. It must be clearly understood that the rates mentioned in Schedule `A1' are inclusive of everything required to be done by the conditions of the contract and specifications or by the drawings therein referred to and also all such work as is necessary for the proper completion of the Tenderer although special mention thereof may have been omitted in the specification or drawings.

36. In these conditions unless there is something in this subject or context inconsistent therewith words importing the singular shall include the plural and vice versa words importing the masculine gender shall include feminine and words importing persons shall include bodies corporate.

37. The technical specification – “Schedule-A” and Price Schedule – A1” to be read in conjunction to make sure of the supply and works involved.
38. The contractor is required to offer rates as per Authority’s format “Schedule- A1” without fail and mention taxes and duties.
39. Necessary paid entry passes to be obtained by the contractor at their own cost.
40. The contractor is advised to visit the site if required.
41. The Authority will not be responsible for any loss or damage of Men/materials/plants engaged during the work.
42. The Contractor shall arrange their own tools and plants and other materials and components required for the above work.
43. All transport required for the work shall be arranged by the contractor at their own cost.
44. **TERMINATION:**
- a) The employer, without prejudice to any other remedy for breach of contract, by written notice of default sent to the contractor, may terminate the contract.
 - i) If the contractor fails to deliver any or all of the Goods with in the period specified in the contract, or with in any extension thereof granted by the Employer.
 - ii) If the contractor fails to perform any other obligation under the contract (or
 - iii) If the contractor, in the judgement of the Employer has engaged in fraud and corruption.
 - b) In the event the Employer terminates the Contract in whole or in part, the Employer may procure, upon such terms and in such manner as it deems appropriate, goods or related services similar to those undelivered or not performed, and the contractor shall be liable to the Employer for any additional cost for such similar goods or related services. However, the contractor shall continue performance of the contract to the extent not terminate. In such terminations Security deposit will be forfeited.
45. **VARIATION:**
- (i) Variation means variation in quantities of items i.e. Where there is increase of quantities of items of work in the agreement. On other words, the nomenclature of work remains the same, but the quantity of variation is maximum / minimum 30% against the Tender cost shown in the agreement. The said variation shall be executed after approval of the competent authority.
 - (ii) The quantity of items in Schedule’A1’ are only Tentative.
 - (i) Payment shall be made to the Tenderer as per the actual work carried out at site.

**Dy. CHIEF MECHANICAL ENGINEER(ES)
CHENNAI PORT AUTHORITY**