



**MUMBAI METRO RAIL CORPORATION LIMITED**

(A JV company of Govt. of India and Govt. of Maharashtra)

5th Floor, A -Wing, Old MMRDA Building, Bandra-Kurla Complex, Bandra (E), Mumbai - 400 051.

MMRC e-Tendering portal: [www.tenderwizard.com/MMRC](http://www.tenderwizard.com/MMRC)

Website: [www.mmrc.com](http://www.mmrc.com)

**Invitation of Bid For, “Design, Manufacture, Supply, Installation, Testing and Commissioning of E&M works comprising of Electrical Sub Stations with HT and LT works, Ventilation and Air Conditioning Systems (VAC), Fire Detection Systems, Fire Suppression (Fire Fighting) Systems, Building Management System (BMS), EOT cranes, Air-Compressors including compressed air piping works and Plumbing Pumps for the Depot Buildings including OCC and at grade Aarey Station for “Mumbai Metro Line -3”**

**Date: [03<sup>rd</sup> January 2018]**

**Contract No: [MM3-CBS-DEM]**

**Addendum No: 6**

<b>Sr. No</b>	<b>Reference Clause no. and Description</b>	<b>Existing content to be deleted</b>		<b>To be replaced as</b>	
1	Volume1,Section 1,NIT Clause 1.1.2 KEY DETAILS, Page 1 & 2 of 10 Sr. No 1 of Addendum -5, Serial No.-2.	<b>Tender documents on sale</b>	From 24-07-2017 to 16-01-2018 (up to 18:00Hrs) on e-tendering website <a href="http://www.tenderwizard.com/MMRC">www.tenderwizard.com/MMRC</a> Tender Documents can be downloaded for reference purpose from the e-Tendering Portal <a href="http://www.tenderwizard.com/MMRC">www.tenderwizard.com/MMRC</a> .	<b>Tender documents on sale</b>	From 24-07-2017 to 29-01-2018 (up to 18:00Hrs) on e-tendering website <a href="http://www.tenderwizard.com/MMRC">www.tenderwizard.com/MMRC</a> Tender Documents can be downloaded for reference purpose from the e-Tendering Portal <a href="http://www.tenderwizard.com/MMRC">www.tenderwizard.com/MMRC</a> .

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			<p>Interested Bidders have to make online payment of Tender Fee using online payment gateway during bid preparation through Debit Card/Credit Card/Net-Banking. Tender Fee receipt can be system generated during</p> <p>For further information on this regard bidders are advised to contact on +91-7666563870, +91-7980042472, +9180-49352000 &amp; on E-mail ID – twhelpdesk358@gmail.com</p>		<p>Interested Bidders have to make online payment of Tender Fee using online payment gateway during bid preparation through Debit Card/Credit Card/Net-Banking. Tender Fee receipt can be system generated during</p> <p>For further information on this regard bidders are advised to contact on +91-7666563870, +91-7980042472, +9180-49352000 &amp; on E-mail ID – twhelpdesk358@gmail.com</p>
		<b>Date &amp; time of Submission of Tender</b>	17-01-2018 up to 1800 Hrs	<b>Date &amp; time of Submission of Tender</b>	30-01-2018 up to 1800 Hrs
		<b>Date &amp; time of opening of Tender (Tender Security + Technical)</b>	18-01-2018 from 1100 Hrs	<b>Date &amp; time of opening of Tender (Tender Security + Technical)</b>	31-01-2018 from 1100 Hrs
2	Volume 3 Employers Requirement General Specification APPENDIX 28 - LIST OF APPROVED	APPENDIX 28 - LIST OF APPROVED MANUFACTURERS / SUPPLIERS or MAKES AND MATERIAL FOR E&M WORK. (Revised) R2 Refer:- Attachment-6 to Addendum-5		APPENDIX 28 - INDICATIVE LIST OF MANUFACTURERS / SUPPLIERS/ MAKES FOR E&M WORK. (Revised) R3 Refer:- Attachment-1 to Addendum-6	

<b>Sr. No</b>	<b>Reference Clause no. and Description</b>	<b>Existing content to be deleted</b>	<b>To be replaced as</b>
	MANUFACTURERS / SUPPLIERS or MAKES AND MATERIAL FOR E&M WORK Sr. No 21 Addendum -5		



**MUMBAI METRO LINE 3  
(COLABA-BANDRA-SEEPZ)**

**CONTRACT NO: MM 3-CBS-DEM**

**Design, Manufacture, Supply, Installation, Testing and Commissioning of E&M works comprising of Electrical Sub Stations with HT and LT works, Ventilation and Air Conditioning Systems (VAC), Fire Detection Systems, Fire Suppression (Fire Fighting) Systems, Building Management System (BMS), EOT cranes, Air-Compressors including compressed air piping works and Plumbing Pumps for the Depot Buildings including OCC and at grade Aarey Station for "Mumbai Metro Line -3"**

**VOLUME 3 OF 6**

**EMPLOYER'S REQUIREMENTS  
GENERAL SPECIFICATIONS**

**APPENDIX-28 (Revised)-R3  
INDICATIVE LIST OF MANUFACTURERS / SUPPLIERS /  
MAKES FOR E&M WORK**

**DECEMBER - 2017**

**Mumbai Metro Rail Corporation Ltd.  
Plot No. R-13, 'E' Block,  
Namttri Building  
Bandra - Kurla Complex,  
Bandra (East), Mumbai – 400051, India**

**VENDOR APPROVAL & INDICATIVE LIST OF MAKES**

1. Contractor shall use the main items material of makes as indicated below unless specified otherwise in BOQ or as approved by the Employer's representative.
2. The contractor shall ensure the correct selection of the approved make meeting the specifications and application duties. The technical submission made by the contractor should clearly indicate deviation or improvements if any, for specification/BOQ. Before placing order for procurement, the Engineer may ask for the sample of proposed make to be got verified for its suitability to the specification and application duty. However, in case Employer's representative / Engineer considers that the make / model proposed by the contractor does not meet the requirement, the contractor will be required to propose an alternative make acceptable to the Employers representative. The decision of Engineer/Employer's representative in this regard shall be final and binding on the both parties.
3. The Contractor shall quote the rate for material and equipment as per the list of indicative makes. In the event of Contractor wanting to use alternate makes other than those stipulated for any reason, the contractor can send a proposal after ensuring that what he proposes at least meets both the quality, and safety standard of the stipulated makes and specifications as stated in the Particular specifications. He shall also stand full guarantee to his alternate proposal. The alternate makes can be used only after an approval accorded by the Engineer/Employer, whose decision will be final in the matter.
4. Vendor selected by the contractor should be capable of providing good after sales service available in Mumbai area during DLP and thereafter.

**MAKES OF MATERIAL / PRODUCTS ELECTRICAL WORKS**

S. no.	Details of Materials / Equipment	MAKES OF MATERIALS / PRODUCTS
<b>LIST A – CORE ELECTRICAL ITEMS INCLUDING UPS, DG, EOT CRANE AND AIR COMPRESSOR</b>		
1.	Transformer (Dry type)	Kirloskar, Voltamp, Crompton, Vijay Electricals Hyd, BHEL, Megawin Switchgear
2.	GIS	Alstom, Schneider, Siemens
3.	HT Cables	LAPP India Pvt. Ltd., Finolex Cables Ltd., Gloster Cables, Havells, KEI, Polycab
4.	HT termination Kit	Raychem, 3M, Dension
5.	LV Switchboards	Tricolite Electrical industries, L&T, GE, Schneider, Unilec, Neptune, Adlec, Suddhir Genset Ltd, ABB, Siemens
6.	Air Circuit Breaker (ACB's)	L&T, Siemens, ABB, Schneider, Legrand, GE
7.	Moulded Case Circuit Breaker (MCCB)	L&T, Siemens, ABB, Merlin Gerin, Legrand, GE, Schneider
8.	Distribution Board	L&T Hager, Legrand, Siemens, ABB, Havells, GE, Tricolite, Schneider, Unilec, Neptune, Adlec, Sudhir Genset Ltd.
9.	ELCB/RCBO/RCCB	L&T Hager, Legrand, Siemens, Schneider, ABB, GE, Havells

S. no.	Details of Materials / Equipment	MAKES OF MATERIALS / PRODUCTS
10.	Miniature Circuit Breaker (MCB)	L&T Hager, Legrand, Siemens, Schneider, ABB, GE, Havells
11.	Switch Fuse Units with HRC Fuses	L&T, GE, Siemens, Control & Switchgear Ltd, ABB, Schneider Electric, Crompton –Greaves
12.	Protective relays	Alstom (AREVA), ABB, L&T, Siemens, Schneider, GE
13.	Capacitors	Crompton, Mehar (Schneider), L&T, Siemens, Ducati, ABB, GE
14.	Current Transformer (Epoxy Cast Resin)	AE, Kappa, Control & Switchgear, Precise, G&M (Gilbert & Maxwell), Volt-amp
15.	Electronic Digital Meters (A/V/PF/Hz/KW/KWH) with LED Display	MECO, DUCATI, Allen Bradely, Motwane, AE, Enercon, HPL, Schneider, L&T Secure
16.	Selector Switch, Toggle switch	Kaycee, L&T (Salzer), BCH, Teknic, Schneider, ABB
17.	Indicating Lamps LED type, Push Button	L&T, BCH, Vaishno, Siemens, Teknic, RAAS, Schneider
18.	APFC Relay	Enercon, L&T, Ducati, Epcos, Emerson, Schneider
19.	Contactors	ABB, Siemens, Schneider, L&T, Telemecanique
20.	Motor Starters	Schneider, Siemens, Socomec, ABB, Havells, BCH
<b>MV CABLING</b>		
21.	XLPE aluminium / copper conductor Armoured MV Cables (FRLS)	Finolex, Asian/RPG, KEI, Havells, Cords cable, Scot innovation, Bonton, Polycab, Universal, NICCO,
22.	Copper / Aluminium (Crimping type) Cable lugs for 1100V grade cables	Dowell's, Jainson, Universal
23.	Compression glands for 1100V grade cables	Peeco, Comet
24.	Copper conductor FR PVC insulated wires ISI marked.	KEI, Finolex, Havells, Bonton, Polycab, Lapp Kabel, Universal, RR Kabel
25.	Terminal Blocks & Cage clamps	ELMEXX, PHOENIX, WAGO, CONNECTWEL
26.	Cable Trays / Raceways	Bharti, Unitech, Steelways, MEM, BEC, OBO, VPL, Legrand, Slottco, Hireach, Fitwell
<b>CONDUIT WIRING &amp; ASSOCIATED ACCESSORIES</b>		
27.	GI Conduit ISI Marked	BEC, AKG, Steel Kraft,
28.	GI Conduit accessories	Conforming to BIS/IS as per approved samples
29.	Modular system, switches, socket outlets and wiring accessories with moulded cover plates	Crabtree, MK Electric, CPL Legrand, Schneider, SSK, ABB
30.	Industrial Sockets	GE, Siemens, BCH, Hensel, Mennekes, Balls, Schneider

S. no.	Details of Materials / Equipment	MAKES OF MATERIALS / PRODUCTS
<b>UNINTERRUPTED POWER SUPPLY (UPS) &amp; INVERTER</b>		
31.	UPS System	Tata Liebert, Numeric, APC, Seimens, Piller, Schneider, GE, Aros-PCI, Emerson, Hitachi, Mitsubishi
32.	UPS Battery	Exide, Furukawa, Standard, Panasonic, Amara Raja, HBL-Nife
33.	Inverter	Luminous, Micro Tek, Su-Kam
<b>COMPACT SANDWITCH TYPE BUS DUCT &amp; LV LIGHT BUS TRUNKING</b>		
34.	Busduct	EAE, Henikwon, Schneider, Siemens, L&T, C&S, Megabarre, Legrand, GE
35.	Light Bus Trunking	Legrand, MK, EAE, Schneider, Siemens, C&S, Megabarre, GE
<b>DG SETS</b>		
36.	Diesel Engine	Cummins, Perkins, Caterpillar, Mitsubishi
37.	Alternator	Stamford, Leroy-somer, Kirloskar, AVK
38.	PLC Make	Woodward, Power-R-Con, DIEF, Schneider, Allen Bradley, Siemens
39.	AMF Panels	Tricolite Electrical industries, ECS, L&T, GE, Associated switchgear, Schneider, Unilec, Neptune, Anand Power, Adlec, ABB, Sudhir Genset Ltd.
40.	Silencers	Neilson or any other equivalent confirming the CPCB norms.
<b>EOT CRANE</b>		
41.	EOT Cranes	M/s. Demag Cranes & Components (India) Pvt. Ltd., M/s. Saico Engineers & Fabricators, M/s. Furnace & Foundry Co., M/s, Mukund Ltd., UNIQUE IND. HANDLERS, ANUPAM INDUSTRIES
<b>AIR COMPRESSED SYSTEM</b>		
42.	Air Compressor	Atlas Copco, Ingersoll Rand, M/s. Elgi compressor, M/s. Kirloskar Copland, Chicago Pneumatic

S. no.	Details of Materials / Equipment	MAKES OF MATERIALS / PRODUCTS
<b>LIST B – OTHER ELECTRICAL / VAC / FIRE-FIGHTING / GENERAL ITEMS</b>		
<b>INTELLIGENT ADDRESSABLE FIRE DETECTION &amp; ALARAM SYSTEM</b>		
1.	FACP	Notifire, Simplex (Tyco), Apollo, Cerberus, Schrek or equivalent
2.	Smoke & Heat Detectors	Edward, Phillips, Appolo, Cerberus, Tyco, Notifier, System Sensor or equivalent
<b>FIRE HYDRANT &amp; FIRE FIGHTING SYSTEM</b>		
3.	Pumps	Kirloskar, Mather & Platt, Grundfos or equivalent
4.	Motors	Kirloskar. ABB, Siemens, NGEF, GEC, Alshthom, Jyoti, Crompton greaves or equivalent
5.	Pressure Switch	Indfoss, Switzer, Morley, System Sensor, Danfoss, or equivalent
6.	Pressure Gauge	H Guru, Fiebig, Newage, Sukan, waaree, wika or equivalent
7.	Pipes (MS & GI)	TATA, Jindal Hissar, or equivalent
8.	MS/GI forged steel fittings	Vs, Suru, B&M or equivalent
9.	MS/GI butt welded ERW fittings	Deccan metal or equivalent
10.	Sluice valve	Kirloskar, Leader or equivalent
11.	Gunmetal stainless steel valves (full way & check valves)	
A.	Class- i	Zoloto, Leader or equivalent
B.	Class –ii	Leader, Sant or equivalent
C.	Non-return valves	Kirloskar, Leader, Audco or equivalent
D.	Butterfly valve	Audco, KSB, Leader or equivalent
E.	Hydrant valve	Newage, Minimax or equivalent
12.	Hose reel tube (Thermoplastic Synthetic reinforced)	KESARA PLAST, SYNTEX or equivalent
13.	Hose pipe (RRL Type)	Jaayshree, Newage, CRC, Jyoti, Maruti Dunlop, Minimax, Safex, Zenith or equivalent
14.	Branch pipe with nozzle	Newage, Safeguard, Minimax or equivalent
15.	Hose Box	Safegaurd, Newage or Reputed make as per IS specification subject to MMRC approval
16.	Paints exposed pipes	Asian paints, Berger, Shalimar or equivalent
17.	Anchor Fasteners	Hilti, hi-tech supports, Fischer or equivalent
18.	Wrapping & coating materials for underground pipes	IWL (pypkote), Grace Industries or equivalent.
19.	Primer paints for painting for above ground pipes	Shalimar bitumanstic paints or equivalent
20.	Y-type suction strainer	Kirloskar, Leader or equivalent
21.	Foot valve with strainer	Kirloskar, Leader, Zoloto, Sarkar or equivalent



22.	Sprinklers	Tyco, Spray safe(UK), Reliable(USA), Grinnel, Star or equivalent
23.	Alarm Valve (installation Valve)	HD fire, Mather & platt, Spraysafe, Central or equivalent
24.	Water motor gong & trims	HD fire, Mather & platt, Spraysafe, Central or equivalent
25.	Flow switches	Switzer, Forbes, Marshall, Viking, Gem, Macdonald, Grinnel, System sensors, morlay IAS, or equivalent
26.	Air release valve	Newage, Kirloskar or equivalent
27.	Ball valve	TBS, IBP or equivalent
28.	Cast iron non-return valve double flanged	Kirloskar, Leader, Kalpana or equivalent
29.	Rubber gasket	Reputed make as per IS specification subject to MMRC approval
30.	Portable fire extinguisher	Minimax, Niti, Safex, Zenith, Safeguard or equivalent
31.	Welding Electrode	Advani oerlikon, L&T or equivalent
32.	Vibration Eliminator pads	Resistoflex, Flenonics (USA), GERB or equivalent
33.	Sprinkler head, Alarm Valve	Tyco, SPRAYSAFE (UK), RELIABLE (USA), GRINNEL, STAR, HD Fire/ Mather & Platt, Central or equivalent
<b>AIR-CONDITIONING AND VENTILATION SYSTEM</b>		
34.	Circulator fans / Exhaust fans/ Inline Fans	Crompton Greaves, Orient, Khaitan, Alstom, Almonard, Systemaire (Sweden) – Kanalfakt, Nuaire (UK) or equivalent
35.	Air Conditioning system	Carrier, Blue Star, LG, Daikin, Toshiba, Hitachi or equivalent
36.	VRV/ VRF	Daikin, Mitsubishi, York, Hitachi, LG, Toshiba, Bluestar, Panasonic, Voltas or equivalent
37.	AHU	Waves Aircon, Systemair India, ETA, Blue Star or equivalent
38.	Centrifugal fan (AHU)	Kruger Singapore, Greenheck or equivalent
39.	Air Filters	Spectrum, AAF, Thermodyne or equivalent
40.	FCU	Waves Aircon, ETA, Blue Star or equivalent
41.	Water Cooled Chiller (Screw)	Trane, Dunhambush, York, Daikin, Jonson & Control or equivalent
42.	Water Cooled Chiller (Magnetic)	Carrier, York, Trane, Daikin Mcquay, Daikin, Jonson & Control or equivalent
43.	Pump Set	Kirloskar, ITT or equivalent
44.	GI Sheet	Tata, Jindal or equivalent
45.	Prefabricated Duct	Rolastar, Zeco, Techno fab, Technoaircon, or equivalent
46.	Fire Dampers	Ruskin India, Greenheck India or equivalent
47.	Motor Operated Damper	Systemair India, Caryaire or equivalent
48.	Manual Damper	Systemair India, Rolastar or equivalent
49.	Volume control Damper	Systemair India, Greenheck, Ruskin Titus, Trox, Air master or equivalent
50.	Grills	Systemair India, Caryaire, Waterloo Ravistar, Air Master, Dynacraft, MAPRO or equivalent

51.	Diffuser	Systemair India, Caryaie, Waterloo Ravistar, Air Master, Dynacraft, MAPRO or equivalent
52.	Fire Rated Paint	Firespray International Ltd. or equivalent
53.	Insulation (Non fire rated)	UP Twiga or equivalent
54.	Insulation (fire rated)	Rockwool India Pvt. Ltd., Lloyd Insulation Ltd. or equivalent
55.	Duct & Pipe Insulation (EPDM)	Armacell, Aeroflex or equivalent
56.	Cooling Tower	Paharpur India, Baltimore, Marle or equivalent
57.	MS & GI pipes	Jindal, Tata or equivalent
58.	Balancing Valve	Advance India, Danfoss, T&A Hydronics or equivalent
59.	Check Valve	Advance India, Kirloskar or equivalent
60.	Butterfly Valve (Non-Motorised)	Advance India, Kitz Japan or equivalent
61.	Butterfly Valve (Motorised)	Belimo, Kitz Japan or equivalent
62.	PICV- AHU	Flowcon, Danfoss or equivalent
63.	PICV- FCU	Flowcon, Pettiranaroli or equivalent
64.	Y- Strainer	Emerald, Sant or equivalent
65.	Axial Flow Fans	Kruger, Systemair or equivalent
66.	Propeller Fan	Kruger, Systemair or equivalent
67.	Flexible Coupling	Resistoflex or equivalent
68.	ECS sound attenuator	Systemair, Ruskin or equivalent
69.	Motor	ABB, Crompton, Siemens, Alstom or equivalent
70.	Automatic Expansion Tank	Anergy, CIMM, TACO or equivalent
71.	Automatic Air Vent	Anergy, Flamco or equivalent
72.	Temperature Gauge	Waree, Fiebig or equivalent
73.	Pressure Gauge	Waree, Fiebig, H Guru, Newage, Sukan, Wika or equivalent
74.	VFD	ABB, Danfoss or equivalent
75.	Water Treatment System	Thermax, Ion Exchange, GE or equivalent
76.	Anti-Fouling Device	Danfoss or equivalent
77.	Vibration isolator	Flexionics (USA), Resistoflex or equivalent
<b>LIGHTING &amp; FANS</b>		
78.	LED Light Fittings	Philips, Bajaj, Keselac-Schreder, Instapower, Crompton Greaves, Wipro, Havells, Surya, or equivalent
79.	Ceiling Fan	Crompton greaves, Orient, Khaitan, or equivalent
80.	Lighting Poles	Paruthi, Bajaj or equivalent
81.	LED Chips	Philips, Nitchia, Cree, Seoul semiconductors or equivalent
82.	Area Lighting Mast	Philips, Bajaj, Crompton, GE, METAL COATS (KLITE) or equivalent
<b>BMS-PLC &amp; SYSTEM INTEGRATOR</b>		
83.	Master Control Equipment's (PLC)	GE-FANUC, Schneider, Rockwell or equivalent

84.	Air Flow Differential Pressure Switches	Honeywell, Rockwell or equivalent
85.	Duct Temperature Sensor	Greystone, Rockwell or equivalent
86.	Two way and three way motorised valve with actuators	Honeywell, Siemens or equivalent
87.	AC Current Transducer	AE, MECO or equivalent
88.	AC Voltage Transducer	AE, MECO or equivalent
89.	Differential transducer	Honeywell, or equivalent
90.	Flow Meter	JN Marshall, Tyco, Victaulic, Viking or equivalent
91.	Space—Sensor	OEM, Greystone or equivalent
92.	Pressure Transducer	Greystone, or equivalent
93.	Dot Matrix Printer	EPSON, HP, Canon or equivalent
94.	HUB for TCP AP	Emulux, Cisco, Aruba, HP or equivalent
95.	Liquids Level Switch	Techtrol, Level Tech or equivalent
96.	Server PC	DELL, HP, Lenevo or equivalent
97.	Monitor	DELL, HP, Lenevo or equivalent
98.	Notebook PC	DELL, HP, Lenevo or equivalent
99.	Cables	KEI, Cisco, D-link or equivalent

**General:**

- (a) It shall be obligatory for the Contractor to obtain Notice of 'No Objection' from the Engineer for the selection of the vendors for all items of work, even if the name of the vendor is specified in the Contractor's Technical Submission and the works to be done including purchase of materials and equipment is in accordance with the Technical Specifications and Standards specified in the Contract.
- (b) In case of vendor selected from the indicative list provided in the contract,
- I. A list of indicative make/vendors is provided in this contract.
  - II. Contractor in general shall use the material of indicative make as per indicative vendor list unless specified in BOQ or makes meeting the tender specifications as approved by the Engineer/Employer's representative.
  - III. The contractor shall ensure the correct selection of the indicated make meeting the specifications and its application. Before placing the order for procurement, the sample of indicated make shall be verified for its suitability to the specification and application. In case Employer's representative/ engineer, (whose decision will be final and binding on both parties) considers that the make/ model proposed by the contractor does not meet the tender requirement, the contractor will be required to propose an alternative make acceptable to the Employer's Representative.
- (c) The contractor will submit a list 'A' of vendors for all the items of the BOQ contract
- I. The list should include the items for which the contractor is proposing the product of the indicated vendor.
  - II. The contractor will be advised 'No Objection' with following caveat: -
    - The model etc. to be supplied will be the latest or superior one.
    - The contractor will be required to submit the technical proposal for the scrutiny
  - III. For the items, contractor desires to propose new vendor, proposal to be submitted in accordance as List 'B'.
  - IV. The contractor will submit the undertaking that above lists i.e. List 'A' and List 'B' includes all the items required in the contract.
- (d) Vendor to be selected who are capable to provide good after sales services available in Mumbai during DLP and thereafter.

**Vendor Approval and Selection Procedure**

- (a) In the event of contractor wanting to use alternate makes other than those stipulated, for any reason, the contractor can send a proposal after ensuring that what he proposes at least meets the specifications both, the quality and safety standard of the stipulated makes and the financial benefit that will accrue to the employer. The alternate proposed product should be a proven one. He shall also stand full guarantee to his alternate proposal and if at any stage it is found that the material is not suitable or meeting the tender requirement, the contractor shall replace the material and provide the material from the indicated vendor without any additional cost to MMRC. The alternate makes can be used only after an approval accorded by the Employer, whose decision will be final in the matter.
- (b) The approval of any equipment or product to be used shall be done in two stages: -
- I. **Stage-I**
    - Assessment of capability of proposed Vendor to supply a particular equipment or product, with quality and performance requirements, as required by Specifications

as well as other contract conditions. The proposed product should be a proven product in service for at least 3 years.

- Assessment of the financial and functional strength of the Vendor to supply the requisite quantity of equipment and product as per delivery schedule acceptable to contractor and engineer to deliver the project in time.

## II. Stage-II

Stage-II called as Technical Submission Approval Stage, selection of Equipment or product from the equipment / products manufactured / supplied by the approved vendor will be done. This stage includes thorough technical assessments about the conformance of the offered equipment / product to the Specifications and other requirements.

## III. To obtain **Vendor** Approval the Contractor must apply with the four sets of the following documents to the Engineer

- (i) Company Profile and Experience of the Vendor
- (ii) Clause wise compliance of the relevant Clauses of Specifications.
- (iii) Details of supplies / orders executed in last ten years for the type of equipment / product offered. Supplies / orders executed for Metro Systems shall be specifically mentioned
- (iv) Details of the facilities available at the Works / Manufacturing Unit where the proposed equipment / product shall be manufactured.
- (v) ISO 9000 Certification for the Works / Manufacturing Unit where the proposed equipment / product shall be manufactured (The Works / Manufacturing Unit where the proposed equipment / product shall be manufactured must have ISO 9000 Certification)
- (vi) Proof regarding compliance to Manufacturer's Qualifications. The offered products must be proven in service.
- (vii) Audited Financial Statements of the Vendor for the last three years.
- (viii) Type test certificates/ Performance certificate from accredited laboratories for the proposed type of equipment / products to establish the technical capability of the vendor (In case, specific requirements are mentioned in the relevant sections of Specifications with regard to type testing, same shall also be complied additionally).
- (ix) The vendor shall not have been blacklisted by any Govt. Agency in India.
- (x) Any other item as required by Employer / Engineer.

## IV. Contractor must certify the check list provided that vendor Proposal is complete and all the above documents are available in the Vendor Proposal. In addition, the Contractor must check / certify compliance to the Specifications before forwarding the same.

## V. Incomplete Vendor Proposal will not be treated as a submission and will be returned.

## VI. Engineer will give Approval to the Vendor Proposal (received complete with all the documents mentioned above) expeditiously.

## VII. Technical submission shall be accompanied with the calculations / other technical documents to justify the selection of any particular model of equipment / product, detailed technical features / parameters of the selected product, type test certificates from the accredited laboratories for the offered products, any other document required by the Engineer.

**VIII.** Engineer will give Approval to the Technical Proposal (received complete with all the documents mentioned above) expeditiously.

- (c) It may be noted that Approval of Vendors as per Point III above shall only be done by Employer / Engineer after the award of the work. Vendor submissions shall not be evaluated during the tender evaluation. Conditional Tender offers received from Tenderers with particular Vendors for supply of equipment/ products will not be evaluated during evaluation and will be dealt with after award of the work.
- (d) It may further be noted that Employer / Engineer shall be under no obligation to accept equipment / products manufactured by the successful Tenderer, unless it meets the entire criterion mentioned above.

The Employer /Engineer's decision on contractor's proposal shall be final and binding.

For sourcing the equipment from indigenous manufacturing facilities, following conditions shall be complied: -

- a) In case the vendor uses his own facilities for indigenization after part supply of equipment from the approved manufacturing unit, no change in design, component type/make, quality standards, manufacture procedure, etc. shall be made without specific approval of the Engineer.
- b) In case OEM wants to use manufacturing facilities in India (other than his own) for items for which the OEM has been approved, it shall enter into an agreement with such selected Indian equipment manufacturer and obtain prior approval from MMRC. No change in composition, rating, type, model no., manufacturing process, quality standards, design, etc. and make of the components used in assemblies/sub-assemblies of such equipment as manufactured by the approved parent vendor shall be made without specific approval of the Engineer.
- c) In case OEM wishes to change/make/type specifications, etc. of any sub-components for supplies to be sourced from Indian facility, specific prior approval of the Engineer shall be obtained for changes made, model, specification, etc. Responsibility for obtaining such prior approval shall rest solely with the contractor.

**Format for submitting the vendor approval request shall be given to the contractor during initial stages and approved format shall be followed throughout the contract.**