

SPECIFIC REGISTRATION REQUIREMENTS
FOR
MECHANICAL & ELECTRICAL WORKHEAD (ME)

JAN 2012 EDITION

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WORKHEAD CLASSIFICATION AND DESCRIPTION

Workhead	Title	Description
ME01	Air-conditioning, Refrigeration & Ventilation Works	The installation, commissioning, maintenance and repairs of air-conditioning, refrigeration, cold rooms, and ventilation systems.
ME02	Building Automation, Industrial & Process Control Systems	Installation and maintenance of microprocessor or computer based building control systems (e.g. integrated environmental control, fire and security computer control system), industrial process control systems. Firms involved in supply of control instruments and equipment should register themselves under SY05.
ME03	Solar PV and System Integration	Installation, testing, commissioning, maintenance and repair of ground / building-mounted grid-connected solar PV systems for electricity generation.
ME04	Communication & Security Systems	(a) Installation and maintenance of communications system (e.g. intercom & wireless radio) and security systems (e.g. CCTV, security alarm, car park security control and card access system). (b) Installation and maintenance of Central Antenna Television (CATV) systems.
ME05	Electrical Engineering	The installation, testing, commissioning, maintenance and repair of electrical based systems such as switchgears, transformers and large generators. It also includes the electrical installations in building and marine vessels. Applicants must employ a full-time employee who has a valid electrical licence. Firms, which are suppliers of electrical equipment or materials, should register under the relevant supply heads.
ME06	Fire Prevention & Protection Systems	Installation and maintenance of fire alarm, prevention and protection systems. This head may include the supply of fire extinguishers and fire hoses if these items are part and parcel of the system installation or maintenance contract. Supplier of fire extinguishers and fire hoses should register under the relevant Expenditure & Procurement Policies Unit (EPPU) head.
ME07	High & Low Tension Overhead Line Installation	(a) Installation and maintenance of low and high-tension overhead cables. (b) Installation of poles for overhead cable and street lighting.
ME08	Internal Telephone Wiring for Telecommunications	Wiring work within a building for telecommunications purposes. Applicants must possess a valid IDA telecommunication wiring contractor's licence.
ME09	Lift & Escalator Installation	This covers the installation, commissioning and maintenance of lifts, escalators and travellers.
ME10	Line Plant Cabling/ Wiring for Telecommunications	Laying of underground telecommunication cables.
ME11	Mechanical Engineering	The installation, commissioning, maintenance and repair of mechanical plant, machinery and systems. It includes the installation and maintenance of power generation and turbine systems. Firms which only supply the hardware should register under the relevant supply heads.
ME12	Plumbing & Sanitary Works	Installation, repairs and servicing of water and gas pipes, sanitary works and plumbing fixtures. Applicants must possess a valid PUB Water Service Plumber Licence, EMA Gas Service Worker Licence or SPS Plumber Licence.
ME13	Traffic Light Systems	Installation and maintenance of traffic light systems.
ME15	Integrated Building Services	The installation, commissioning, maintenance and repairs of building services, which include some or all of the following: ME01, ME02, ME04, ME05, ME06, ME08, ME11, and ME12. <i>(please refer to the registration requisites in Appendix B, Table B3)</i>

**TABLE B1
REGISTRATION REQUIREMENTS**

Grade	(Tendering Limit) (\$)	Financial (Min Paid-Up Capital & Min Net Worth) (\$)	Management (see Table B2 for more details)		Track Record (past 3 years) (\$)
			All except ME09	ME09	
L6	Please refer to BCA website for the tendering limits (http://www.bca.gov.sg/ContractorsRegistry/contractors_tendering_limits.html)	1.5m	2P, both with at least 5 years of relevant experience SMC	2P, both with at least 5 years of relevant experience	30.0m of which 7.5m PS 3.0m MC and 3.0m SP
L5		500,000	1P or 2T, one with at least 8 years of relevant experience SMC	1P or 2T, one with at least 8 years of relevant experience	10.0m of which 1.0m SP
L4		250,000	2T, one with at least 5 years of relevant experience SMC	2T, one with at least 5 years of relevant experience	5.0m of which 500,000 SP
L3		150,000	2T SMC	2T	3.0m
L2		50,000	1T with 3 years of relevant experience SMC	1T with 3 years of relevant experience	1.0m
L1		10,000	1T	1T with 3 years of relevant experience	100,000 (see note 7)
		50,000 (for ME09)			

Note:

- 1) m stands for million
- 2) Both minimum (min) paid-up capital and minimum net worth must be met. L1 firms are required to submit the latest management accounts (not more than 12 months old).
- 3) PS – projects executed in Singapore
- 4) MC – main contracts (nominated sub-contracts may be included)
- 5) SP – minimum size single project (main/sub-contract) executed entirely by the applicant
- 6) P/T – Professional and Technical personnel with relevant qualifications (see Table B3 for more details).
- 7) With effect from 1 Feb 2012, entry grade L1 will require completed or ongoing track record of \$100,000 for new, renewal and upgrading applications. For companies with insufficient track record, an interview with the technical personnel (conducted at BCA office) will be required. Please contact 1800 3425222 (press “2” after connecting) to arrange for an appointment for the interview before making applications.
- 8) SMC (Safety Management Certification issued by BCA) or OHSAS18000 is required for ME01, ME02, ME05, ME06, ME11 and ME12 with the following grades;
 - L6 and L5 to be obtained by 1 Jul 2013
 - L4 and L3 to be obtained by 1 Jul 2015
 - L2 to be obtained by 1 Jul 2016

TABLE B2
PERSONNEL QUALIFICATION & LICENCE

Workhead	Title	Personnel Qualifications and Licences
ME01*	Air-Conditioning, Refrigeration & Ventilation Works	“P” shall mean a Professional qualification with a recognised degree in Electrical/Electronics or Mechanical Engineering or equivalent.
ME02*	Building Automation, Industrial & Process Control Systems	“T” shall mean a Technical qualification with a recognised diploma in Electrical/Electronics or Mechanical Engineering or equivalent.
ME03*	Solar PV and System Integration	
ME04*	Communications & Security Systems	
ME06*	Fire Prevention & Protection Systems	
ME09	Lift & Escalator Installation	
ME11	Mechanical Engineering	
ME12*	Plumbing & Sanitary Works	<p>“P” shall mean a Professional qualification with a recognised degree in Mechanical Engineering or equivalent.</p> <p>“T” shall mean a Technical qualification with a recognised diploma in Mechanical Engineering or equivalent.</p> <p>For ME12, a valid plumber licence issued by EMA, PUB or SPS can be considered for grades L1 and L2 only.</p>
ME05*	Electrical Engineering	“P” shall mean a Professional qualification with a recognised degree in Electrical/Electronics Engineering or equivalent.
ME07	High & Low Tension Overhead Line Installation	“T” shall mean a Technical qualification with a recognised diploma in Electrical/Electronics Engineering or equivalent.
ME08	Internal Telephone Wiring for Telecommunications	For ME05, an EMA electrician can be considered as one of the “T” for grades L1 and L2 only. An EMA electrical engineer/technician can be considered as one of the “T” for grades L3 to L5.
ME10	Line Plant Cabling/Wiring for Telecommunications	For ME10, a holder of BCA Builder Certificate or NTC2 in electrical trade can be considered for L1 and 2 holders of BCA Builder Certificate of NTC2 in electrical trade can be considered for L2.
ME13	Traffic Light Systems	
ME15	Integrated Building Services	Please refer to Table B3 for more details.

Note:

* For ME01, ME02, ME03, ME04, ME05, ME06 and ME12, Advance National Building Qualification (NBQ)/Specialist Diploma in M&E Coordination is acceptable as an approved technical qualification for Grades L1 to L5.

TABLE B3 ME15 – INTEGRATED BUILDING SERVICES

To be registered under this workhead, firms must already be registered at L2 & above under ME01, ME05 and at least one other *ME workhead registered in ME02, ME04, ME06, ME08, ME11 or ME12.

Registration grade will be pegged at the higher grade of the compulsory M&E workheads (i.e. ME01 & ME05) subject to a maximum of 2 grades higher than that of the lower workhead. The lowest registration grade shall be L2.

Firms must also possess the following licences:

- A full-time employee who has a valid EMA electrical licence.
- A valid IDA telecommunication wiring contractor's licence.

Personnel requirements are listed in the table below:

Grade	Tendering Capacity (\$)	Minimum ME Requirements	Minimum Personnel Requirement (please see notes 1 and 2)
L6	Please refer to BCA website for the tendering limits (http://www.bca.gov.sg/ContractorsRegistry/contractors_tendering_limit_s.html)	ME01 = L6, ME05 ≥ L4 and one other *ME workhead ≥ L2 OR ME01 ≥ L4, ME05 = L6 and one other *ME workhead ≥ L2	2 ¹ P, both with at least 5 years of relevant experience, one of whom must hold a 2 ² MEC or 2P, both with at least 5 years of relevant experience + 1MEC
L5		ME01 ≥ L5, ME05 ≥ L3 and one other *ME workhead ≥ L2 OR ME01 ≥ L3, ME05 ≥ L5 and one other *ME workhead ≥ L2	1P who also holds a MEC or 1P + 1MEC OR 2T, one of whom must have at least 8 years of relevant experience and either one holding a MEC
L4		ME01 ≥ L4, ME05 ≥ L2 and one other *ME workhead ≥ L2 OR ME01 ≥ L2, ME05 ≥ L4 and one other *ME workhead ≥ L2	2T, one of whom must have at least 5 years of relevant experience and either one holding a MEC
L3		ME01 ≥ L3, ME05 ≥ L2 and one other *ME workhead ≥ L2 OR ME01 ≥ L2, ME05 ≥ L3 and one other *ME workhead ≥ L2	1T + 1MEC
L2		ME01 ≥ L2, ME05 ≥ L2 and one other *ME workhead ≥ L2	1MEC

Notes

¹ P (University Degree) or T (Polytechnic Diploma) must be either in Electrical/Electronics, Mechanical Engineering, Building Service, or equivalent.

² MEC refers to a full-time M&E coordination personnel. Only the following MEC qualifications are acceptable

- Advance National Building Qualification (NBQ) awarded by BCA Academy or Certificate/Specialist Diploma in M&E Coordination awarded by CITI.
- Diploma in Building Services Engineering awarded by Ngee Ann Polytechnic and
- Diploma in Intelligent Building Technology awarded by Temasek Polytechnic

**TABLE B4
LICENCE**

Workhead	Title	Licence Required
ME05	Electrical Engineering	Applicants must employ a full-time employee who has a valid electrical licence.
ME08	Internal Telephone Wiring for Telecommunications	Applicants must possess a valid IDA telecommunication wiring contractor's licence.
ME12	Plumbing & Sanitary Works	Applicants must employ a full-time employee who either has a valid PUB Water Service Plumber Licence, EMA Gas Service Worker Licence or SPS Plumber Licence.
ME15	Integrated Building Services	Applicant must possess a valid IDA telecommunication wiring contractor's licence and employ a full-time employee who has a valid electrical licence.