

Competence Profiles – Guidance for applicants and Assessors

PART 2 – INDUSTRY CLASSIFICATION (K) – THE ARMY

Introduction

The Corps of Royal Electrical and Mechanical Engineers (REME) is responsible for the maximisation of combat power within the Army through the provision of repair and recovery of equipment and technical advice. The recent change to agency status of the Equipment Support function has seen the outsourcing of some responsibilities of depth repair, provisioning and procurement. However, this has also created employment opportunities on a defence-wide basis for technical advice. Career opportunities exist as operational engineers within the Field Army, commanders in the training organisation and technical staff officers in procurement and technical support organisations. The organisation remains hierarchical with predictable and managed levels of exposure in differing environments. This allows the clear identification of personnel who have attained the minimum level of professional engineering responsibility required for corporate membership of the Institution.

REME has invested and will continue to invest heavily in the training and mentoring of engineers. The mainstream officer corps is drawn almost exclusively from graduates with accredited engineering degrees. All complete an initial 44-week officer-training package at the Royal Military Academy of Sandhurst. This inducts personnel into the service culture, establishes common military skills and develops leadership qualities (the Commissioning Course attracts licentiate membership of the Institute of Personnel and Development). All REME officers then undergo a 7½-week special-to-arm engineering doctrine and equipment focused orientation course, which is the start of the 2-year IMechE accredited training package. Engineering officers then assume their first command within the Field Army, normally in the rank of Second Lieutenant, during which time they continue to receive mentored engineering on the job training. Officers return to the training establishment for a 6-month period of structured training, which includes an attachment to industry to develop competences in design, production, commerce and civil industrial relations. This is followed by two tours in the rank of Captain, invariably culminating in a qualifying period of relevant experience in independent command. The result is that the vast majority of engineering officers will have acquired the experience and competences to qualify for Membership by the time they have completed 7 years' service or three tours of duty.

Requirements for election or transfer to Member

Mainstream Officer Candidates

Engineer officer posts and their associated job descriptions are too numerous and diverse to explain in detail within the context of this guide. However, it would be expected that a suitable candidate for election or transfer to Member would have completed at least three tours of duty as a junior officer, which would normally include one tour in command of a REME unit called a Light Aid Detachment. Applicants in the rank of Major would certainly have completed this minimum number of tours and should be able to demonstrate their suitability for corporate membership without difficulty. Generally, they would have been responsible for the development, planning and control of the maintenance or other technical support activities of several large operations. The officer would be responsible for the unit's equipment, usually worth about £20M - £30M and the management of up to 150 technical personnel. This would include the career development and direct supervision of junior engineer officers, undergoing training for chartered membership themselves.

The first tour is typically in command of an operational unit, of platoon strength (30+ tradesmen), in a REME Battalion or within a Light Aid Detachment. They will be responsible to a Major for the efficient running of the unit, both in barracks and operations and for the military career and technical development of their subordinates. There may be a brief period in a training organisation before a second tour in a more senior platoon, where responsibility increases both technically and in the numbers under command (50 tradesmen). The third tour and main qualifying appointment will be in command of a Light Aid Detachment (100 personnel). As sole engineering officer, they are responsible to the Commanding Officer for; the efficiency of the unit, provision of technical advice, co-ordination of external engineering support, adherence to national engineering and other standards and the career management of subordinates.

In addition, REME officers are employed in staff appointments where the emphasis is on the provision of engineering advice, either in support of the effective management of in-service equipment or as a project manager. Many REME officers undergo further formal training in preparation for increasing levels of responsibility and can read for an engineering or science based Master's degree as part of advanced professional training.

Late Entry Officers (Technical)

In addition to mainstream officers, suitably academically qualified applicants (usually of long status) drawn from the non-commissioned cadre may also be eligible for Corporate Membership. Typically applicants would be drawn from the Artificer pool in the electronic, weapons and vehicle disciplines.

The applicants would be expected to have completed at least one 3-year tour, as a commissioned officer, in an engineering appointment either within an operational unit or on the staff. This would ensure that they have the relevant experience at an appropriate level. The rank of the applicants would normally be at least that of Captain. Their lack of exposure to the formal academic training (honours degree) of their mainstream counterparts means that they would have to demonstrate full and convincing evidence of the required competences to achieve election or transfer to corporate membership. This would normally be in accordance with the rules for the Mature Candidate Scheme.

Assessment of Competences

The beneficial effect of frequent postings into a wide variety of appointments is that officers are likely to acquire key competences rapidly, as defined and recognised by the Institution. When applying for election or transfer to Member, an individual should have completed at least 6 years of service in a variety of posts and should have achieved, and be able to demonstrate, competences in all relevant sections. The fact that an applicant is currently employed in one particular aspect of engineering management should not detract from experience gained *en route*. It must also be recognised that an applicant could well be re-deployed into another area of activity before his/her application has been fully considered by the Institution.

Competence statements A and B

Successful candidates will be able to demonstrate their understanding of engineering principles in a wide range of applications, from vehicle technology to weapons and electronic systems integration. They should have no difficulty in demonstrating attributable examples of innovation and problem solving. Where candidates are or have been involved primarily with the engineering management of maintenance, the assessors should seek evidence of projects and initiatives with which the individual has been involved.

Examples of situations or activities that give mechanical engineers the opportunity to achieve and demonstrate professional competence in these areas include:

- Exercising safety responsibility for equipment and working practices in operational units.
- The management of a mixed vehicle fleet, the monitoring of engine and major assembly failure rates and the analysis of operational practices (based on sound engineering principles).
- The implementation of the most cost-effective procedures.
- Introduction into service of new equipment, with associated documentation, training and operating procedures.
- The analysis of competing bids for new equipment, liaising closely with other MOD staff and with manufacturers and suppliers.
- Fault analysis on equipment across system boundaries.

The above list is far from exhaustive but gives an indication of typical levels of responsibility.

Competence statements C and D

Leadership, management, communication and inter-personal skills are key requirements for any Army officer; indeed, a high level of competence across all these areas would be required before graduating from Initial Officer Training and Specialist Engineering Training. The key elements of competence are included in the majority of job descriptions for engineer officers in REME. Engineer officers routinely manage equipment, personnel and, increasingly, budgets, all within the context of recognised quality management systems such as ISO 9002. Engineers of all ranks are expected to be capable of presenting technical and non-technical subjects to subordinates, superiors and external agencies. Effective communication, both written and oral, is essential within the Service and should be self-evident in the Professional Review Report and at interview.

Competence statement E

Safety procedures and rules that should be followed vary from one workplace to another within the Service. However, there is close observation of, and compliance with, the latest Health and Safety and Environmental Protection legislation across the Army. Indeed, as line managers, engineer officers will have responsibility for compliance with the legislation and will have under their command specialists trained in the assessment of risk and hazardous procedures.

All engineer officers are now issued with a Professional Development Record in which they can maintain a record of their education, employment, key achievements and further training. Nevertheless, it must be stressed that the updating of PDR records and development action plans and involvement with Institution activities are seen as personal responsibilities and are therefore not enforced by the Army. They should, however, be proved at the Professional Review stage.

Examples of CPD activities recognised by the Institution as acceptable, which REME officers engage in include:

- Extra qualifications such as an MBA, Diploma in Engineering Management
- Any relevant technical or business courses
- Conducting or attending workshops
- Attending, presenting or participating in seminars and conferences
- Presenting or attending lectures
- Writing technical papers
- Reading technical articles and journals
- Distance or open learning
- Secondments and job rotation
- Updating in own and other fields of work
- Institution meetings or events
- Active IMechE committee work
- Learning a foreign language
- Involvement in other Government Department activities
- Community and charity work

Requirements for election or transfer to Fellow

In order to complete the successful transfer from the class of Member to that of Fellow, the applicant would at the time of applying have held a position of senior engineering responsibility for a minimum of 12 months. Suitable positions within the Army include Commander Equipment Support appointments within the Field Army and Integrated Project Team leader or similar appointments with the Defence Procurement Agency,

Defence Logistic Organisation, other engineering authorities, support authorities and engineering staff appointments. Ideally, given the route prescribed above for election or transfer to Member, the applicant would have achieved chartered status during a previous tour and would also be able to prove robustly his/her CPD commitment since becoming a Chartered Mechanical Engineer. Further, the applicant would, without difficulty, also be able to demonstrate their rôle and involvement in producing high-level engineering and support decisions.

The majority of applicants would have completed some form of intermediate staff training (for example, Basic or Advanced Staff Course, Senior Logistics Management Course) by the time that they should be considered eligible for transfer to the class of Fellow. In some instances, the Army would have sponsored the applicant to complete a second degree in either an engineering, science or business discipline. Additionally, further examples of suitable CPD activities not covered under the requirement for Competence Statement E above include:

- MPDS mentoring
- Defence Engineering & Science Group mentoring on behalf of the Civil Service
- Acting as an IMechE Membership Panel interviewer

For candidates applying directly for the class of Fellow, a Professional Review Report similar to that required for the class of Member would be required in addition to an interview. In particular, this report must contain additional supporting evidence detailing:

- The position of senior engineering responsibility held by the applicant
- The applicant's contribution to the professional development of young engineers
- How the applicant intends to keep up to date regarding developing technologies, from both a technical and a commercial standpoint.

Finally, a Development Action Plan detailing a future programme of CPD would be required from applicants in either category (transfer from Member or direct election).