

Competence Profiles – Guidance for applicants and Assessors

PART 2 – INDUSTRY CLASSIFICATION (P) – NATIONAL HEALTH SERVICE

Introduction

Since the introduction of NHS Trusts in the early 90's, the standard grading and salary scales for engineers in the Health Service have virtually disappeared and their use as broad indicators of professional engineering responsibility is no longer relevant. Each Trust is likely to have its own organisation and salary structure and, although these may be similar in many respects, there is no standard basis for comparison.

To achieve career progression, engineers in the Health Service are likely to take on a broad portfolio of responsibilities, as well as leading on engineering issues.

Requirements for election or Transfer to Member

In order to assess professional engineering responsibilities against this varied and changing background, it is now necessary to judge an individual's competences, as distinct from investigating time spent in designated posts previously deemed to meet the Institution's requirements for Membership. The method of assessing the various elements of competence within sections A to E, in accordance with the benchmark profile for Membership (normally a minimum of three sections at level 3 plus two sections at level 2), is fully described in Part 1 of this manual.

The structure of a typical NHS Trust, under the overall control of the Chief Executive, is likely to include the following functions as well as Clinical, Finance, Human Resources etc.

- Facilities Management (Engineering, Building and Hotel Services)
- Operation and Maintenance
- Energy Conservation/Management
- Estate Management
- Capital Planning/Development (Design, Tender and Commissioning)
- Those involved in specialist fields of medical engineering developing various medical aids or who work in biomedical engineering e.g. replacement joint research etc.

In each of the above functions there will probably be a significant engineering content; the head of a function, and possibly personnel who report directly to him or her, should be able to demonstrate the competences necessary to fulfil the Institution's requirements for the class of Member.

Assessment of Competences

Professional mechanical engineering responsibilities for the positions listed above will, of course, depend to a large extent on the type and size of an NHS Trust. Applicants' personal responsibilities and competences, together with their direct input to projects in their work area and the degree of responsibility, need to be carefully reviewed. In addition, clear and comprehensive organisation charts will be key to the appraisal process.

Competence statements A and B

Successful applicants will be able to demonstrate their use of a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology in their chosen field within the Health Service, be it in operations, maintenance, engineering services, design or in any of the other areas outlined above.

Applicants engaged primarily in project engineering or management should provide, and assessors should seek, evidence of responsibility for technical specifications, technical risk management, and evaluation of technical solutions and monitoring against technical performance standards.

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

- Theoretical studies of design or operational problems in NHS Trusts
- Participation in the evolution, development and commissioning of new designs of plant, including performance evaluation and the investigation of operational failures

Competence statement C

As many NHS Trusts now operate varied management structure, applicants are not necessarily expected to have line management responsibility or experience in order to meet the required level of competence in this section. Also, engineers who have moved into highly specialist technical rôles, e.g. in medical electrical engineering and imaging departments, may have minimal management responsibilities; such applicants would be expected to have a high degree of autonomy in planning and monitoring their activities and care should be taken to explore the interface between them and their colleagues and supervisors.

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

- The planning and personal supervision of equipment overhaul and maintenance projects
- Active participation in design review
- The periodical review of maintenance and/or operational strategies for existing items of equipment and the formulation of new procedures and systems for additional items and novel processes
- The in-house training and development of technicians and skilled craftsmen, possibly on a project-by-project basis

Competence statement D

Communication and interpersonal skills should be assessed by consideration of both the Professional Review Report and interview performance. Assessors should look out for a report which has a logical structure, clearly aimed at presenting a portfolio of evidence against each of the five competence statements, while providing a qualitative description of activities and achievements.

Assessment of verbal communication skills should analyse the ability to give clear, concise and relevant answers that address the question without undue digression and provide sufficient, but not superfluous, detail.

Additional evidence of competence in this area may be sought by investigating:

- Whether the applicant routinely makes presentations to in-house management at various levels, outside clients and contractors; subjects could include project plans, business plans, etc.
- Whether the applicant is involved in contract liaison and negotiations - systems, procedures, method statements, safety, etc.

Competence statement E

The observance of safe working procedures, including compliance with internal and national codes of practice e.g. Hospital Technical Memoranda (HTMs), is inherent in virtually all engineering activities undertaken within NHS Trusts. Applicants should be able to demonstrate their commitment to observing and promoting the use of any such codes that are relevant.

Evidence of professional integrity and commitment should include a Self-Development Action Plan, in any convenient format, outlining how the applicant intends to maintain and enhance competence through personal development. The Plan should include short, medium and long-term goals and explain how these are likely to be achieved. Assessors should be aware that SARTOR 3 interprets Continuing Professional Development (CPD) as commencing at the point where Chartered status is attained; therefore applicants are not required to provide a record of courses attended, etc., when applying for corporate membership.

Examples of CPD activities recognised by the Institution as acceptable 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 government activities
- community and charity work

Requirements for election or transfer to Fellow

The following senior posts within NHS Trusts should be considered as generally likely to meet the requirements for the class of Fellow:

Director of Estates/Facilities/Planning

Deputy Directors or personnel reporting directly to a Director

Those involved in specialist fields who are eminent in their profession or who lead a team of medical engineers developing various medical aids or working in biomedical engineering e.g. replacement joint research etc.

Applicants will generally have significant responsibilities for resources (both financial and manpower) and also have wide understanding of strategic, commercial and financial issues. They are likely to be experts in their particular fields and “champions” for their directorate, company or industry sector.

Valid applications for election or transfer to Fellow may be received from other engineers with established reputations in important positions of responsibility in engineering science or practice. In addition to demonstration of achievements and standing in their field of engineering science or practice, applicants would be expected to participate in external forums, for example by promoting the importance of engineering issues in debate with Government and other bodies, via the Institution. In any case, an involvement in the professional development of young engineers would be expected, as would documentary evidence of Continuing Professional Development.

Further examples of suitable CPD activities not covered under the requirement for Competence Statement E above include:

- MPDS mentoring

- 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 (see Part 1 of this document for full details). 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).