



The Institute of Healthcare Engineering and Estate Management

Registration Process Map and Competency Requirements for all AE's(Ventilation)

Introduction

The Policies and Principles section of Health Technical Memorandum 00, Best Practice Guidance for Healthcare Engineering, describes the structure and the core suite of nine subject areas for guidance. HTM 03 sets out guidance for the design, management and operation of ventilation systems.

Chapter 2 of HTM 00 summarises the professional support and management structures required to implement the HTMs for the role of Authorising Engineer (Ventilation) (AE(V)).

The IHEEM Ventilation Technical Platform (VTP) maintains a Board of Registration (BoR) of Authorising Engineers (Ventilation). The responsibility for maintaining the register within the VTP is through the AE(V) BoR Panel, which is described in the Terms of Reference for that Group, and agreed by the VTP membership.

The VTP AE(V) BoR Panel under the direction of the VTP is responsible for the publication of an AE(V) Code of Conduct, the investigation of complaints, registration of AE(V)s, periodic re-registration of AE(V)s and general management of the register.

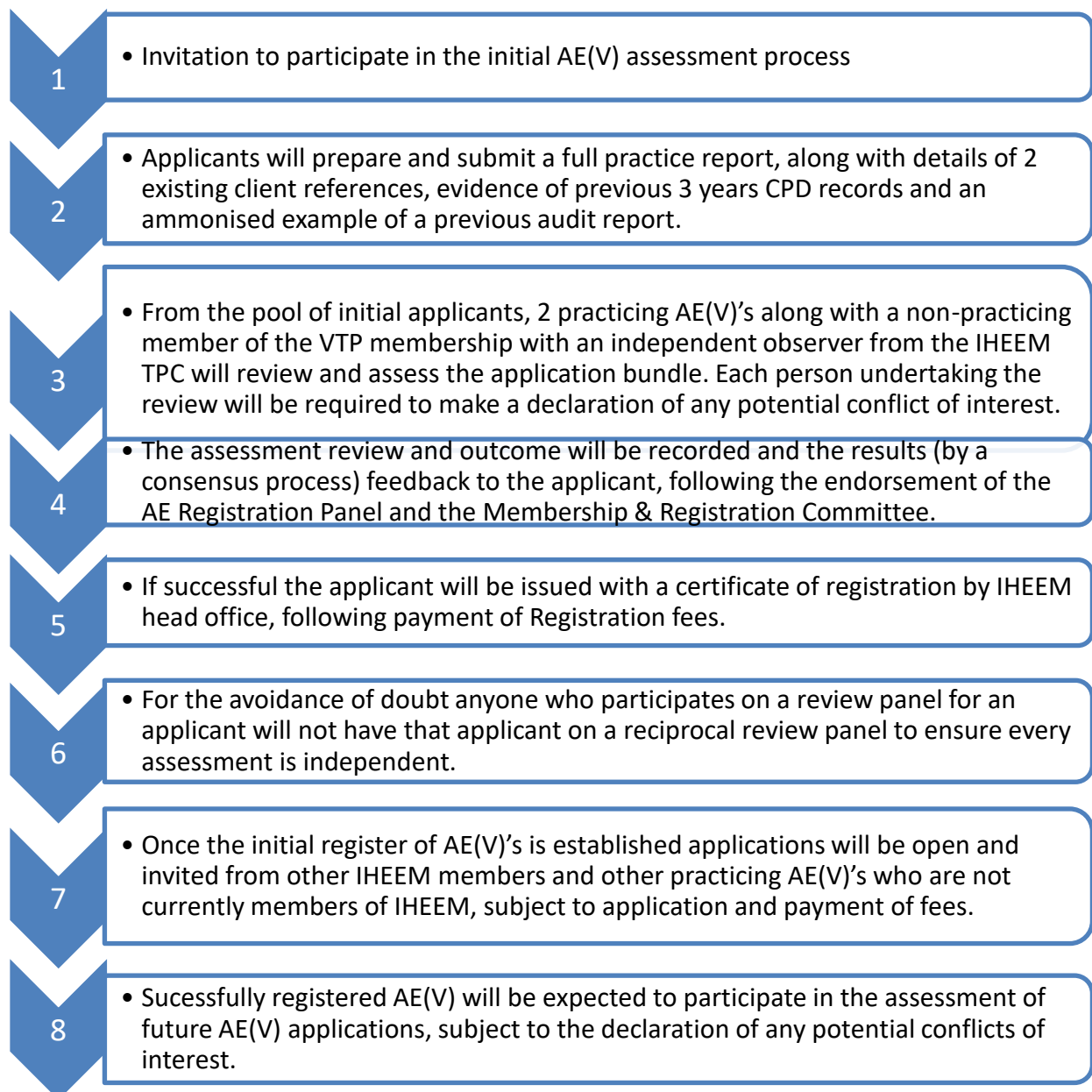
This document outlines the registration matters of AE(V), new entrants to the scheme and re-registration procedures for those already registered. The registration procedure will be transparent and controlled.

Acceptance onto the register will be undertaken by successful completion of an application form together with a Practice Report with supporting information, and a Professional Peer Review, whereby a satisfactory level of professional competence including work experience and CPD will be assessed.

AE(V) REGISTRATION PROCESS FLOW DIAGRAM.

Existing IHEEM VPT Members who are practicing AE(V)'s will be invited to participate in the initial registration review process. Those practicing AE(V)'s who have declared an interest in becoming registered through IHEEM will prepare and submit an application and practice report, two existing client references, along with details of the previous 3 years CPD records for a peer review process.

It is also envisaged that existing members of the VTP who are suitably experienced but do not act as an AE(V) – ideally a directly employed NHS Trust estates engineer – will participate in the peer review process to ensure client quality standards are assessed.





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PROFESSIONAL REVIEW – AE(V) REGISTRATION

Procedure

Registration will be conducted by the AE(V) Panel and will take the form of a Professional Review consisting of:

- Scrutiny of the Application Form.
- Scrutiny of the submission by the applicant of a written Practice Report of 2000 words + appendices, outlining the experience and type of work carried out.
- Scrutiny of the applicant's CPD log.
- Interview by the Panel.
- Confirmation of completion of a recognised course for Authorised Person (Ventilation) and the HTM 00 AE Foundation Course. (Note refresher training will be required upon revisions or updates to the HTM or similar standards to maintain current knowledge and skills base).

The Interview

The Peer Review Panel will be treated as confidential by the BoR and the Peer Review Panel. However, it is the applicant's responsibility to obtain from their employer any clearance required under the Official Secrets Act or any other restriction placed on you by the employer. Whilst the Act and the need for commercial confidence will be respected by the interviewers, the interview panel will probe sufficiently to obtain satisfactory answers to demonstrate a general and specialist knowledge of healthcare ventilation operational and safety matters.

Although time constraints will not allow the interviewers to visit all topics the interview will be based on some of the following:

- Exercising impartial technical judgement at an appropriate level. What are the applicant's precise current or most recent responsibilities?
- Understanding of, and involvement in, financial and commercial considerations.
- Keeping abreast of changing technology, standards and legislation.
- Demonstrating an awareness of processes other than the applicant's areas of specialisation (*for example control of design, installation, validation or operation*)
- Discussion of a recent project or piece of work in which the applicant was personally involved. This could be accompanied by brief and limited documentation.
- The applicant's communication skills.

The Professional interview will commence with the applicant making a short (10 minute) presentation on the key aspects of the role and responsibilities of an AE(V) followed by the professional review interview.

The Peer Review interview panel will consist of 3 existing IHEEM VTP registered AE(V)'s (when established) and an independent representative from another existing IHEEM AE discipline to ensure transparency and consistency.

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IHEEM Ventilation Authorising Engineer Assessment Criteria Competencies

Qualifications

Chartered Engineer or Incorporated Engineer registration with an HNC/HND or equivalent technical qualification. Candidates must also be able to demonstrate a minimum 5 year's relevant experience, 10 years preferable. and qualifications (often by short courses) on areas including but not limited to Healthcare ventilation systems such as theatres, isolation facilities (both protective and infectious), category 3 containment laboratories, hydrotherapy areas, local exhaust ventilation systems

Training Courses

Attendance at a certified City & Guild or equivalent Authorised Person Ventilation course within the last 3-5 years before applying for membership.

Attendance at a certified City & Guilds or equivalent Authorising Engineer course before applying for membership. Attendance at an awareness of Category 3 Containment Laboratories, LEV systems (P601 or similar) training course.

Experience

1. Experience in the field of research or system development relevant to Specialist Ventilation in Healthcare.
2. Experience in one of the following: the design; installation; or commissioning / validation of HVAC and BMS/Controls systems or equipment relevant to Specialist Ventilation in Healthcare.
3. Experience in the operation of HVAC and BMS/Controls systems and equipment relevant to Specialist Ventilation in Healthcare.
4. Experience in the overseeing, monitoring, provision of advice and proactive commenting on the implementation of design/operational solutions, of HVAC and BMS/Controls systems and equipment relevant to Specialist Ventilation in Healthcare and the evaluation of their effectiveness.
5. Experience in carrying out Authorised Person (AP) Assessments, Preparation of Annual Audit Reports with action plans for recommended improvements and further training needs of AP's on HVAC and BMS/Controls systems and equipment relevant to Specialist Ventilation in Healthcare.
6. Experience in the follow up monitoring of Action Plan implementation by the DP, SOM and AP's and the chairing of regular meetings and issuing of update progress reports and notes to the DP, SOM and AP's with a list of outstanding actions.

Knowledge

An AE(V) Application Submission MUST be able to demonstrate:

- Extensive experience in report writing on topics relevant to Specialist Ventilation in Healthcare (e.g. Audit reports, peer reviews, or comments on design or operational proposals)
- Ability to provide independent advice

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- Submit a Practice Report of approximately 2000 words + appendices outlining the experience and type of work carried out.

Professional Memberships

Member of IHEEM at Fellow or Member level

CPD

Submit a separate CPD log with a minimum of the previous 3 years records

Documentary evidence or a CPD log showing a minimum of 30 hours of CPD annually.

References

Minimum of Two References required

Further Requirements

All existing and proposed AE members of the IHEEM VTP are required to demonstrate by means of a Practice Report and Professional Peer Interview the following:

1. A sound basic knowledge of the design, installation and operation of HVAC and BMS/Controls systems and equipment relevant to SVH.
2. Interpersonal skills e.g those needed for carrying out Annual Audits and AP Assessments in a professional but productive manner which promotes good working relationships and assists in minimising/resolving conflict between any parties.
3. Theoretical and practical knowledge on the introduction and use of new and developing technologies which can or might be applied to Specialist Ventilation in Healthcare in terms of operational aspects and for new projects.

Agree by signature to adhere to AE(V) Code of Conduct

Agree by signature to be independent and impartial

The AE Registration Panel of the VTP can recommend further actions regarding education and training as deemed necessary before the applicant is accepted onto the register. These recommendations could be in the form of mentoring by an existing AE(V) or gaining further experience at management level in the healthcare ventilation field.

Key Elements to be included within the Practice Report

- A systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline.
- Details of relevant experience with examples of appropriate skills learned from completion of relevant projects
- An ability to deploy accurately established techniques of analysis and enquiry within a discipline.
- The ability to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline.

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- The ability to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline.
- An appreciation of the uncertainty, ambiguity and limits of knowledge
- The ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline).
- The ability to apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to permit projects to be initiated and completed.
- The ability to critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem
- The ability to communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
- The ability to exercise initiative and personal responsibility.
- The ability to make decisions in complex and unpredictable contexts.
- The ability to undertake appropriate further training of a professional or equivalent nature.

CPD objectives for AE(V)s

All AE(V)s should have a clear understanding of current strategies and techniques in healthcare ventilation systems and an appreciation of how and when to apply them in practice. This will include the ability to make judgements about the areas of ventilation systems in their designated field and take responsibility for their decisions and actions.

Documentary evidence or a CPD log showing a minimum of 30 hours of CPD annually.

CPD may consist of the following categories:

- Monitoring and coaching of individuals working with healthcare ventilation
- Knowledge of current legislation, practices and technology
- Management and Communication, personal skill development.
- Keeping updated on knowledge and skills through Seminars and appropriate courses.
- Supplementary work and duties, private study, reading and committee work.

The following activities are a guide to what can be classified as CPD, but are not exhaustive:

- Professional institute technical meetings
- Professional institute Regional or Group meetings
- Professional institutional committee work
- Private reading and study
- Reading or writing of papers, articles and professional Journals
- Occasional lecturing
- Academic studies including vocational qualifications
- Undertaking relevant courses
- Giving or receiving Mentoring

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Re-registration of AE(V)s

All registrants will be reviewed by the registration panel every three years.

The registrar will inform each registrant at least four months prior to the review date to request the re-registration documentation.

Each registrant must submit to the AE(V) panel registration sub-group the following:

- Documentary evidence or a CPD log showing a minimum of 30 hours of CPD annually
- A written professional review of the registrant's activity summarising the period since last registration. The review should be approximately 1000 words.
- Collectively, these documents should adequately demonstrate:
 - awareness and application of current healthcare ventilation standards and practices.
 - ongoing development of knowledge and skills
 - routine decision making and accountability in the field of healthcare ventilation.

It will be at the discretion of the registration panel to call the registrant to an interview if the documents submitted for re-registration do not meet the criteria outlined above.