



MANAGING COMPETENCE FOR VENTILATION HYGIENE ACTIVITIES

Pathways for Operatives & Technicians

Industry Competence Steering Group (ICSG)

Sector Led Group 10 – Installation & Maintenance (10.2 Engineering Services)

Ventilation Hygiene Competence Group (VHCG)

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The Engineering & Building Services Skills Alliance (EBSSA) brings together leading organisations from across the engineering, building services and environmental technologies sectors to collaborate on shared workforce training and skills priorities. A coalition of Actuate UK members together with BEAMA, CIPHE, TICA-ACAD and MCS, EBSSA provides a credible voice for skills across all engineering and building services.

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1 SCOPE

1.1 Purpose

The purpose of this work is to set out an industry approach to developing, measuring, and validating the competence of those undertaking ventilation hygiene activities against the scope set out in section 1.2. This will ensure that defined arrangements are in place by which competence can be objectively measured and confirmed, increasing safety.

No specific sector-based legal requirements for validation or revalidation of competence in ductwork installation currently exist, however the Building Safety Act (2022) and associated legislation place an onus on individuals and employers to prove competence to work in critical activities in construction and the built environment.

Whilst the requirements of the Building Safety Act (2022) and secondary legislation such as the Building Regulations 2010 and their 2023 amendment have been taken into account in its production, its content does not constitute regulatory guidance and it is not intended to provide interpretation of the law. Responsibility for complying with the law resides with the individuals and organisations carrying out work. Signposting to relevant legislation and regulations can be found within Appendix 2 – Bibliography.

This document and its underpinning details are designed for use for a variety of purposes, including:

- Development of industry wide tools for measuring and validating competence
- Development of organisational approaches to evidencing workforce competence
- Alignment and/or recognition of existing training, assessment, qualifications
- Development of new training, assessment, qualifications, and occupational standards
- Strengthening arrangements for organisational capability

This standard should be read in combination with the '*Managing Competence for Ventilation Hygiene Activities – Benchmarking*' document, which describes the work of the Ventilation Hygiene Competence Group (VHCG), and the context / background underpinning development of competence requirements and pathways in this area.

1.2 Occupational area

The following definition has been used to underpin the developments outlined in this document:

Ventilation hygiene ensures that ventilation systems are maintained in a clean condition and decontaminated as required by statutory regulation and in compliance with industry standards, to maintain system performance and efficiency important to net zero and ensure the wellbeing and safety of those within the built environment. This includes checking, testing and reporting operation of associated equipment when cleaning is being carried out.

This includes:

- Air hygiene – cleaning of industrial, commercial and healthcare ventilation systems that are not used for commercial extract cooking applications, aligned with the requirements of TR19 Air – Specification for Internal Cleanliness and Hygiene Management of Ventilation Systems, NAAD-21 Part 2: AIR (Indoor Air Quality), and BS EN 15780 – Ventilation for buildings. Ductwork. Cleanliness of ventilation systems

- Grease hygiene – cleaning of industrial, commercial and healthcare ventilation systems specifically relating to kitchen extract systems not suitable for air or general ventilation cleaning works, aligned with the requirements of TR19 Grease – Specification for Fire Risk Management of Grease Accumulation within Kitchen Extract Systems, NAAD-21 Part 1: GREASE (Kitchen Extract), and BS EN 15780 – Ventilation for buildings. Ductwork. Cleanliness of ventilation systems

1.3 Occupational relevance

This approach to competence has been designed for those carrying out ventilation hygiene activities as set out in the definition in section 1.2. This includes activities which may apply to those with the following role titles (or similar):

- Air hygiene operative
- Air hygiene technician
- Grease hygiene operative
- Grease hygiene technician

Operatives undertake general duties of cleaning on site.

Technicians act as team leaders / supervisors, with responsibility for signing off work, conducting specified pre- and post-clean surface cleanliness validation tests, clarifying post-clean information, and supervising cleaning on site. Each site should have a technician present for the duration of the clean.

1.4 Limitations and exclusions

The scope of this work applies to industrial / commercial, healthcare and large-scale residential settings.

The pathways set out in this document related to core activities of those carrying out ventilation hygiene cleaning itself. A second phase of work will be required to focus on activities which fall outside these roles, for example surveying and / auditing.

1.5 Building types

The requirements set out in this document apply to work carried out on both new build construction sites and in existing buildings. They also apply equally to work carried out on higher-risk buildings (HRBs) and other building types.

1.6 Geographical scope

The proposals set out have been designed to apply to the whole of the UK to create a consistent standard for competence. Further discussion with bodies in devolved nations may be required to implement these proposals outside England.

2 THE STANDARD FOR COMPETENCE

2.1 Competencies and target audiences

Detailed competencies for ventilation hygiene activities can be found within the associated functional map and framework of competencies 'VHCG-OP005 – Ventilation Hygiene FM and SKEB R1'.

Evidence should then be gathered to show that the full scope of skills, knowledge, experience and behaviour (SKEB) statements for all mandatory activities has been met, in accordance with the routes to competence set out in section 2.6 - Routes to competence.

This standard for competence is intended to address the needs of the following:

- New entrant (2.6.1)
- Experienced worker (2.6.1)

2.2 Preparing to evidence competence

Individuals may use a combination of formal and informal learning to prepare to demonstrate competence. This may include development of skills, knowledge, experience and behaviour in the workplace as well as training.

Training alone (without embedded summative assessment) does not provide evidence of competence, but it is a useful enabler to prepare individuals to create the evidence of skills and knowledge required. Training may be carried out in house or through third-party training providers.

When purchasing training, individuals and employers should check that this meets the requirements of the framework and will have value to them. A training specification linked to the requirements of the framework of competencies is in development to provide additional guidance on alignment between training content and scope of assessment. This will support individuals and employers in identifying training that adequately prepares learners for assessment.

In addition to aiding development of knowledge and skills, informal learning in the workplace will also help to develop experience and behaviour.

2.3 Collecting evidence of competence

Individuals (in conjunction with their employer where appropriate) should select relevant activities from the functional map according to their role scope - this should include all mandatory activities. Determination of competence should then be made through gathering evidence that the SKEB statements set out for relevant activities have been met in accordance with one of the routes to competence outlined in section 2.6.

- Evidence of skills and knowledge should be obtained through achievement of a relevant programme of assessment meeting the competence standard, indicated as fit for purpose by the Skills Partnership Committee
- Experience (continuing application of skills and knowledge) can be demonstrated through collecting and storing evidence of work carried out in accordance with the benchmarks for experience set out within the selected activities. Note that the requirements specify a *minimum* quantity of evidence of experience. Individuals (in conjunction with their employers where appropriate) should ensure that they are

collating evidence appropriate to their scope of work, which may exceed the minimum requirement

- Evidence of behaviour may be gained through performance management systems, including formal appraisals or reviews, or supervisor / team-leader feedback

Individuals who have yet to meet the required standard of competence for a particular activity should be supervised by an appropriate individual until competence has been demonstrated.

2.4 Validating competence

Individuals and their employers should validate that evidence of competence is in place across the full scope of relevant standards, as set out in the SKEB statements within the framework, and in accordance with the routes to competence.

It is recommended that a third-party system is utilised, to provide an objective check. For example, through a specific third-party installer certification scheme, a certificated quality management system incorporating management of individual competence, or a trade association membership scheme. Widening of the current industry registration scheme to incorporate full requirements for competence may also support industry in validating competence.

Where use of third-party validation is inappropriate, structured mechanisms for collating and checking evidence should be in place.

2.5 Revalidation of competence

Continuing demonstration of competence and revalidation of that competence are a key component of any assurance scheme. Competence should be revalidated every five years. As with initial validation. A third-party system is utilised to provide an objective check.

Evidence contributing to revalidation should be collected according to the routes to competence set out in section 2.6 and the requirements of the framework of competencies.

Alongside ongoing collation of evidence to demonstrate baseline competence, individuals should also complete and collate evidence of relevant manufacturers' training for the products / systems they are using.

2.6 Routes to competence

The following are routes to competence for each entry point. It should be noted that further development will be required to put those routes to competence in place, specifically to ensure that appropriate products are in place for individuals and their employers to access. Until the point where new routes to competence are available, existing competence guidance should be followed.

It is expected that an employer or individual will define the job role relevant to their scope of activities (as set out in section 2.3) aligned to the relevant occupation, and that individuals will be developed to that level using the appropriate route.

2.6.1 *Evidencing initial baseline competence – new entrant and experienced worker*

Individuals develop their skills, knowledge, experience and behaviour in the workplace, supported by appropriate third-party training where required.

Individuals must provide the following evidence of competence:

- Completion of BSE specific fire safety training

- Completion of skills & knowledge assessment, indicated by the Skills Partnership Committee as meeting or exceeding the requirements of the competence framework, in mandatory activities. This may include assessment previously recognised by the Skills Partnership and may integrate CSCS HS&E testing if appropriate
- Collated evidence of experience in line with the requirements of the competence framework, in mandatory activities
- Collated evidence of behaviour in line with the requirements of the competence framework, in mandatory activities

Individuals will be eligible for:

- A related discipline SKILLCard for air and /or hygiene operative, upon completion of the first two points above, with evidence in place for all mandatory activities related to the role undertaken, and achievement of the relevant CSCS HS&E test
- A blue, skilled worker SKILLCard for air and/or grease hygiene technician, upon completion of the first two points above, with evidence in place for all mandatory activities related to the role undertaken, and completion of the relevant CSCS HS&E test

2.6.2 Addition of further competencies

Following initial demonstration of competence, individuals may need to add on competence in other activities, as their scope of work changes over time. For example, an air hygiene operative may also need to demonstrate grease hygiene competence, or progress to demonstrate competence in activities undertaken by an air hygiene technician.

These additions may be made at various points throughout an individual's career as they extend their scope of work. Individuals should supply evidence of SKEB in relevant activities in line with the route set out in section 2.6.1.

Individuals will then be eligible for relevant additional registration with SKILLCard, subject to relevant CSCS HS&E test completion.

2.6.3 Evidencing currency of competence

Evidence of currency of competence should be collected regularly throughout the five-year validation period, in order to support revalidation. Individuals must provide the following evidence of ongoing competence:

- Completion of any relevant skills / knowledge updates (CPD) (e.g. legislative updates, technological changes)
- Completion of refresher assessment in line with industry requirements and the requirements of the framework as determined by the Skills Partnership, in relevant activities
- Ongoing evidence of experience (continuing application of skills and knowledge over time) meeting the requirements of activities in the framework for which competence needs to be maintained
- Ongoing evidence of behaviour meeting the requirements of activities in the framework for which competence needs to be maintained
- Completing the relevant HS&E test where ongoing SKILLCard registration is required

Individuals should also have completed manufacturer training relevant to their scope of work and the products / systems being installed.

Evidence gathered should be validated by a third party to provide external, objective oversight.

2.7 Relationship to organisational capability

Alongside demonstrating the competence of individuals within their workforce, companies also need to demonstrate organisational capability. This can be evidenced through being part of a certification scheme or trade body membership scheme that embeds these requirements for competence within it.

Employers should ensure that work is only allocated to those who are competent to undertake it. Where individuals have yet to demonstrate competence in a particular activity (including having the relevant experience to carry it out correctly), appropriate supervision should be in place.

2.8 Ongoing monitoring and maintenance

The current version of these pathways was published in April 2026 and is due for review in April 2029. This will be managed and maintained by the BSE Skills Partnership with practical support provided by VHCG. Minor amendments to the document, including the addition of clarification text to existing statements, may be made during this period. Resolving typographical errors and formatting changes to ensure the framework is up to date may be carried out on a continuous basis.

The Skills Partnership will maintain a list of approved programmes which contribute towards the evidencing of competence in order to support employers in identifying appropriate provision.

3 IMPLEMENTING THE STANDARD

It has been acknowledged that further development work will be required to put in place the proposed routes to competence for the sector. The following table sets out the next steps required to fully implement the competence requirements set out within this paper. It should be noted that this list is not necessarily exhaustive, and further actions might be identified as work progresses.

Where specific product development is required, estimated time required for that development to take place has been factored into the timescale outlined. This may be subject to change as more detailed requirements emerge

Activity required	Purpose	Owner	
Develop standard training specification	To drive consistency in training & support alignment of training with assessment	BESA / VHCG / training providers	Q3 2026
Develop standard assessment specification (requirements and guidance for assessors & assessments, including provision for off-site and on-site assessment)	To drive consistency between providers	BESA / VHCG / training providers	Q3 2026
Develop guidance on evidencing behaviour	To support industry	BESA / VHCG	Q4 2026
Finalise BSE specific fire safety training	To create contextualised fire safety awareness training	BESA	Q2 2026
Engage with devolved nations stakeholders to encourage take-up of additional competence requirements	To ensure consistent requirements for competence are in place throughout the UK	BESA	Ongoing
Make updates to SKILLCard register in line with emerging programmes	To increase granularity of registration and ensure appropriate cards are available at both operative and technician level, and consider how the register can support the full scope of competence	BESA SKILLCard	Q3 2026
Communicate new requirements and changes regarding competence to industry	To drive awareness of competence requirements and support industry	BESA / VHCG	Ongoing
Develop requirements for refresher assessment and any associated training	To ensure that currency of competence can be maintained	BESA / VHCG	TBD

Activity required	Purpose	Owner	
Maintain list of approved provision	To make it clear to employers what has been approved as supporting demonstration of competence	Skills Partnership	Ongoing
Complete phase 2 work on additional competencies for surveying and auditing	To ensure requirements are in place for additional aligned activities	VHCG	Q3 2026

APPENDIX 1 – TERMS & DEFINITIONS

Behaviour

Observable traits or ways of working that should be displayed. Observable things that an individual does or does not do

Competence / individual competence

Application of skill, knowledge, experience, and behaviour consistently by an individual to achieve a specific outcome

Standard for competence

Procedures & requirements for developing, measuring, validating, and proving competence against agreed skills, knowledge, experience, and behaviours required for an individual undertaking a role, function, activity, or task in order to perform their work to predetermined standards and expectations and maintain or improve their performance over time. This is sometimes referred to as a competence framework or competence standard

Continuing professional development (CPD)

Activities undertaken by an individual to maintain and develop competence, including formal and informal learning, self-assessment, obtaining feedback and identifying areas for improvement

Firestopping

Firestopping techniques encompass those used for penetration seals for services e.g. cables and pipes, linear joint seals, cavity barriers (e.g., in voids in roof spaces, above suspended ceilings, within walls and in external walls). Firestopping is also required as part of some other passive fire protection measures, including around fire door frames, around fire resisting /smoke control ducts and dampers.

Experience

Participation in relevant activities or observation of facts and events leading to

acquisition, improvement or demonstration of skills and knowledge

Formal learning

Organised and structured learning against formal learning objectives

Framework of competencies

Agreed statements of skills, knowledge, experience, and behaviour against specific activities identified in the functional map

Functional map

A map of activities included in the sub-sector, split into pre-determined levels of complexity

Individual

A single human being

Informal learning

Self-directed learning, or learning from experience

Higher-risk building (HRB)

Building subject to enhanced regulatory requirements or where risks might be considered elevated (for example as a result of the physical characteristics of the building, the way in which the building is used, or as a result of human factors)

Job role

The specific combination of activities performed in a specific role, as agreed between an employee and an employer. This may change over time, or from employer to employer, or between employees of the same employer

Knowledge

Assimilation of facts, theories, and practices in relation to a given role, function, activity, or task

Occupation

The area of work undertaken by a category of employees, each of which may have a

related but different job role. This is standard across the entire industry

Organisational capability

The combination of people, practices and other resources brought together by a business to allow it to function effectively and deliver value to customers and stakeholders

Qualification

A regulated programme of assessment, sometimes with aligned training, which results in the issue of a nationally recognised award being made upon completion

Revalidation

The formal process of reassessing an individual's competence against a sector-specific framework on a periodic basis to check that competence has been maintained

Sector-specific competence framework

A competence framework relevant to a specific role, function, activity, task, trade, or discipline

Semi-skilled role

One which requires more capability than unskilled workers, but with a lower competence level than that required for fully skilled workers when carrying out the job correctly. Semi-skilled workers generally perform routine, well defined tasks, requiring moderate judgement

Skill

The ability to perform an activity or task consistently with a specific intended outcome

Validation

The formal process of assessing an individual's competence against a sector-specific framework

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