

**SummitSkills Consolidated Assessment Strategy for
Units and Qualifications of “Occupational
Competence” in the Qualifications and Credit
Framework (England, Northern Ireland and Wales) for
the Building Services Engineering Sector**

Electrical and Electronic Servicing (Consumer Electronics; Domestic Appliances; Signal Reception)

Electrotechnical (Electrical Installation; Electrotechnical Services)

Mechanical Engineering Services (Air Conditioning; Heating & Ventilation; Plumbing/Domestic Heating; Refrigeration)

FINAL VERSION

April 2010 v2.1a (06.10)

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1. Definitions of terminology used in this Assessment Strategy

Terminology	Explanation/Definition
QCF	Qualifications and Credit Frameworks for England, Northern Ireland and Wales.
“NVQ”	The term “NVQ” is used to identify a competence-based qualification.
Occupational Competence	The knowledge, understanding and skills needed by an individual to carry out a particular job role/responsibility safely and in accordance with approved industry and technical standards and working practices.
Assessment of Occupational Competence	<p>A term specifically relating to a means of assessment of the safety-critical and technically critical aspects for the units and qualifications that are the subject of this assessment strategy. It is an independent holistic assessment of the learner’s occupational competence via an assessment process as determined by the industry and endorsed by SummitSkills and the Awarding Organisation(s).</p> <p>In order to undertake this stage of the qualification’s assessment procedure/requirements, evidence of a learner’s involvement, relevant experience and progressive development of occupational competence must be available before an “Assessment of Occupational Competence” is undertaken.</p>
RoC	Rules of Combination – a combination of units, determined by SummitSkills, that are required for a learner to be awarded an identified QCF qualification.
Knowledge Unit	A unit that gives the learner the opportunity to demonstrate their knowledge and understanding of identified topics and subject areas.
Performance Unit	A unit that gives the learner the opportunity to demonstrate they have the practical skills that are in keeping with the relevant National Occupational Standards for identified activities.
Combination Unit	A unit that gives the learner the opportunity to demonstrate their understanding and application of specific knowledge, and is assessed in conditions using particularly identified “relevant practical activities” as defined in the qualification unit.
Simulation and Simulated Conditions	An environment in which simulated activities take place involving the replication of a real working environment. The criteria for which must be to supply fit-for-purpose tools, equipment, full-size components, realistic deadlines and other commercial requirements.
Real Working Environment	An environment in which real work activities take place under real working conditions in keeping with real commercial situations
Independent Assessment Structure	The independent assessment structure must not be a part of the learner’s working or training environment and will provide facilities for assessment in keeping with the industry arrangements (See Annex 3). Therefore, the learner will be independently assessed by an independent assessor in keeping with an industry determined specification.
Key safety-critical aspects	Any “technical” activity with the potential to harm/damage personnel/property if carried out incorrectly (See section 4).

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Technically critical	Any activity that is fundamental to the safe and efficient operation of equipment, components and systems.
SSC	Sector Skills Council – SummitSkills is the SSC for the Building Services Engineering sector

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2. Purpose and scope of the Assessment Strategy

The purpose of this assessment strategy is to ensure that qualifications and associated units that attest to occupational competence in an identified role are;

- Based on the relevant approved National Occupational Standards
- Assessed to industry endorsed assessment principles and methodologies
- Fit for purpose
- Confirm occupational competence

The assessment of units within a qualification's structure (Rules of Combination-RoC) which are available as "stand alone units" must also be undertaken in adherence with this assessment strategy to ensure that assessment requirements and methodologies are consistently applied in accordance with the principles of the "Assessment of Occupational Competence". Units can be identified as;

- Knowledge Units
- Performance Units
- Combinations Units

2.1 The scope of this Assessment Strategy relates to the competence-based qualifications in the QCF with the term NVQ in the qualification title and any associated units for the principal industries in the Building Services Sector of Air Conditioning, Electrical and Electronic Servicing, Electrotechnical Installation and Services, Heating and Ventilation, Plumbing and Refrigeration. The full list of qualifications is provided in Annex 1. This Assessment Strategy outlines the principles and requirements to be applied to the assessment of knowledge, understanding, performance and/or competence for these qualifications and relevant associated units.

2.2 The qualifications identified in Annex 1 are set at "operative level" which in the context of this strategy is defined as:

Those skilled individuals at level 2 or level 3 (subject to their role) with responsibilities for the installation, maintenance, servicing and/or repair of the systems, services and equipment for climate control, communication, heating, lighting, power, security, water within the sector's principal industries of Air Conditioning and Refrigeration, Electrotechnical Installation and Services, Heating and Ventilation, Plumbing and Electrical and Electronic Servicing.

It should be noted that any additional "Occupational Competence Qualifications/Units" developed for the industries and occupations in the Building Service Engineering sector must be compliant with this assessment strategy. This includes amendments and revisions to those qualifications identified in Annex 1 and relevant associated units developed after the publication of this strategy.

2.3 This strategy is designed for qualifications and units that are delivered in accordance with the requirements of the Qualifications and Credit Frameworks for England, Northern Ireland and Wales.

3. Principles of Assessment

3.1 Given the nature of the potentially hazardous work undertaken by operatives in the key industries of the building services engineering sector (2.2), the methodology(s) of assessment that ensures the candidate is occupationally competent will be determined by the industry for which the qualification and relevant associated unit(s) is designed for.

3.2 Qualifications attesting to "**Occupational Competence**" will have a structure that has been determined by SummitSkills.

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- 3.3 Unit and qualification assessment requirements will set out the scope of evidence required in terms of components, equipment, enclosures, services, statutory and non-statutory regulations and industry standards and systems.
- 3.4 Methods of assessment;
- 3.4.1 Knowledge Units – projects/assignments, external written assessments/tests and professional discussion.
- 3.4.2 Performance Units - practical activities in the work place or as appropriate in simulated conditions.
- 3.4.3 Combination Units – Practical activities/assignments in simulated conditions. Identified knowledge is assessed in accordance with 3.4.1 above.
- 3.5 The assessment instruments for **Knowledge Units** must be as identified in the “Additional Information” of the unit, be fit-for-purpose and be one or more of;
- 3.5.1 Knowledge tests - centrally set, centrally marked and quality assured by the Awarding Organisations who offer a unit(s) or qualification(s) identified in this strategy.
- 3.5.2 Knowledge based projects or assignments that are centrally set, centre marked and quality assured by the Awarding Organisations who offer a unit(s) or qualification(s) identified in this strategy.
- 3.5.3 Knowledge based professional discussion that is centre devised following centrally specified guidance, centre marked and quality assured by the Awarding Organisations who offer a unit(s) or qualification(s) identified in this strategy.
- 3.6 The environment in which the evidence and the quantity of evidence for **Performance Units** must be assessed, i.e. sourced from the real working environment or simulated conditions, will be detailed in the “Additional Requirements” for each Performance Unit. This could be applicable to all the Learning Outcomes in the unit or particular Learning Outcomes.
- 3.7 Evidence that is sourced from the real working environment for **Performance Units** must be naturally occurring and can be generated by;
- 3.7.1 Direct observation of performance in the workplace by a qualified assessor and/or testimony from an expert witness subject to the activity being assessed (Also see 3.6 above). This will be the primary source of evidence.
- 3.7.2 Candidate’s reflective account of performance.
- 3.7.3 Work plans and work based products e.g. diagrams, drawings, specifications, customer testimony, authorised & authenticated photographs/ images and audiovisual records of work completed.
- 3.7.4 Evidence from prior achievements that demonstrably match the requirements of the Performance Unit.
- 3.7.5 Witness testimony (See Expert Witness Annex 2 – 2.4).
- 3.8 Meeting the assessment requirements of **Performance Units** (3.7) will need initial discussions and assessment planning between the learner and Assessor, as an essential activity to identify opportunities to assess real working environment evidence, gaps that need to be filled or opportunities to recognise the prior achievement of the learner.

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- 3.9 The assessment methodology for the assessment of a **Combination Unit** will be centrally-set or centre devised and centrally verified in keeping with design and assessment principles for the unit's assessment assignment, agreed between SummitSkills and the Awarding Organisations
- 3.10 Competence must be demonstrated **consistently over a period of time and on more than one occasion**. However SummitSkills does not wish to stipulate what that period of time might be as this is a decision for the Assessor. Based on their own professional judgement Assessors must be capable of identifying when competence has been demonstrated by the learner.
- 3.11 Learners should not be put forward for an "**Assessment of Occupational Competence**" until they are **deemed ready to be assessed as competent**. This underpins the assumption that the learner has sufficient technical expertise, knowledge, skill and maturity to meet the expectancies of employers in terms of "Occupational Competence".
- 3.12 The "**Occupational Competence**" of learners **must** be assessed in accordance with industry requirements as prescribed in Annex 3 and Annex 4 of this strategy.

4. Key Safety-Critical Aspects

Any demonstration of competence involving the key safety-critical aspects listed below must be a fundamental element of the "**Assessment of Occupational Competence**" as determined by the industry

<u>Electrical and Electronic Servicing</u>	<ul style="list-style-type: none"> ➤ Activities relating to limited scope electrical work ➤ Connection & testing of signal reception systems
<u>Mechanical Engineering Services</u>	<ul style="list-style-type: none"> ➤ Activities relating to F Gas installations/service and maintenance ➤ Pressure testing ➤ Handling of refrigerants (ODS, Ammonia, HC and CO₂) ➤ Thermal pipe joining methods – welding; brazing; soldering activities ➤ Limited scope electrical work ➤ As relevant, the installation, connection and servicing/maintenance of fuel systems and equipment – gas; oil; solid fuel ➤ As relevant, the installation, connection and servicing/maintenance of hot/cold water systems and equipment – unvented water; backflow prevention
<u>Electrotechnical</u>	<ul style="list-style-type: none"> ➤ Safe isolation ➤ Termination and connection ➤ Inspection, testing and commissioning ➤ Risk assessments and safe working practices ➤ Diagnosing and correcting faults

5. Simulation and Simulated Conditions (Performance Units)

Situations where simulation is either permissible or mandatory.

5.1. Permissible:

Simulation can take place in those rare circumstances where the opportunities to collect naturally occurring evidence are limited or absent and the learner lacks evidence for completion of the unit. However, this scenario is anticipated to be rare in relation to the qualifications and the units to which this strategy applies given the inherent flexibility of the evidence-gathering process.

5.2. Mandatory:

Simulation **must take** place for industry identified key-safety critical aspects (Section 4) of the qualification as listed in Annex 1 and their relevant associated units.

The activities that will be undertaken demonstrating competence in these areas are contained within each industries “**Assessment of Occupational Competence**” arrangement and this must NOT be undertaken before the learner has demonstrated sufficient technical expertise, knowledge, skill and maturity.

Where simulation does take place it must be in a realistic working environment and/or an independent assessment structure. (See definitions).

6. Quality Assurance of the Assessment Process:

The assessment requirements for “**Competence-Based**” qualifications and units therein identified in Annex 1 of this Assessment Strategy **must** be, in terms of process and quality assurance, compliant with;

6.1 Operating Rules for using the term NVQ in a QCF qualification title – Ofqual, August 2008

and

6.2 “Additional Requirements for QCF Qualifications that use NVQ in the title”, September 2009 – Federation of Awarding Bodies (FAB); Joint Council for Qualifications (JCQ); Alliance for Sector Skills Councils, September 2009

Knowledge units must be assessed in accordance with 3.5 above.

The requirements of Assessors, Internal and External Verifiers are detailed in **Annex 2**.

Annex 1 – QCF Qualification Titles

ELECTROTECHNICAL

- **Level 2 NVQ Diploma in Installing & Servicing Electrical and Electronic Equipment and Appliances**
 - Consumer Electronics Servicing
 - Electrical Appliances
- **Level 3 NVQ Diploma in Installing, Servicing & Commissioning Electrical and Electronic Equipment and Appliances**
 - Consumer Electronics Servicing
 - Electrical Appliances
- **Level 2 NVQ Diploma in Installing & Servicing Signal Reception Systems**
- **Level 3 NVQ Diploma in Installing, Servicing & Commissioning Signal Reception Systems**
- **Level 3 NVQ Diploma in Installing Electrotechnical Systems and Equipment**
 - Audio Visual Systems Installation
 - Buildings, Structures and the Environment
 - Structured Cabling
- **Level 3 NVQ Diploma in Electrotechnical Services**
 - Electrical Maintenance
 - Electrical Panel Building
 - Electrical Machine Rewind & Repair

- **Level 2 NVQ Certificate in Highway Electrical Systems**
- **Level 2 NVQ Diploma in Highway Electrical Systems**
- **Level 3 NVQ Diploma in Servicing Highway Electrical Systems**
- **Level 3 NVQ Diploma in Servicing and Commissioning Highway Electrical Systems**

MECHANICAL ENGINEERING SERVICES

- **Level 2 NVQ Diploma in Install, Test and Maintain Air Conditioning Systems**
- **Level 3 NVQ Diploma in Service and Maintain Air Conditioning Systems**
- **Level 3 NVQ Diploma in Installing & Commissioning Air Conditioning Systems**
- **Level 2 NVQ Diploma in Domestic Heating**
- **Level 3 NVQ Diploma in Domestic Heating**
- **Level 2 NVQ Diploma in Heating & Ventilating – Ductwork Installation**
- **Level 3 NVQ Diploma in Heating & Ventilating – Ductwork Installation**
- **Level 2 NVQ Diploma in Heating & Ventilating – Industrial & Commercial Installation**
- **Level 3 NVQ Diploma in Heating & Ventilating – Industrial & Commercial Installation**
- **Level 2 NVQ Diploma in Heating & Ventilating – Service and Maintenance (t.b.c.)**
- **Level 3 NVQ Diploma in Heating & Ventilating – Service and Maintenance (t.b.c.)**
- **Level 2 NVQ Diploma in Plumbing and Heating**
- **Level 3 NVQ Diploma in Domestic Plumbing and Heating**

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- Level 2 NVQ Diploma in Install and Maintain Refrigeration Systems
- Level 3 NVQ Diploma in Install and Commission Refrigeration Systems
- Level 3 NVQ Diploma in Servicing and Maintaining Refrigeration Systems

ENVIRONMENTAL TECHNOLOGIES

- Level 2 Award in Environmental Technology Awareness
- Level 3 Award in Installing and Commissioning Solar Thermal Hot Water Systems
- Level 3 Award in Installing and Maintaining Solar Thermal Hot Water Systems
- Level 3 Award in Installing and Commissioning Solar Photovoltaic Systems
- Level 3 Award in Installing and Maintaining Solar Photovoltaic Systems
- Level 3 Award in Installing and Commissioning Heat Pump Systems
- Level 3 Award in Installing and Maintaining Heat Pump Systems
- Level 3 Award in Installing and Commissioning Water Harvesting and Re-use Systems
- Level 3 Award in Installing and Maintaining Water Harvesting and Re-use Systems

Annex 2 –The requirements of Assessors, Internal Verifiers and External Verifiers for Building Services Engineering competent-based qualifications and relevant associated units

2.1 Assessors must:

2.1.1

Be working towards or have achieved A1 or A2 Standards and continue to practice to those standards;

or

2.1.2

Have achieved D32 or D33 or TQFE/TQSE and possess CPD evidence of practicing to A1 or A2 Standards.

or

2.1.3

Have other suitable “equivalent assessor qualifications” endorsed by SummitSkills, which apply the principles of the A1/A2 Standards.

2.1.4 (Occupational Competence)

Have verifiable relevant industry experience and current knowledge of industry working practices and techniques relevant to the occupational working area. This verifiable evidence must be **at or above the level being assessed** and include one or more of the following:

- a relevant qualification (see list in Section 2.5 of this Annex)
- registration with the appropriate industry registration body at the relevant occupational level and grade.

For particular units/qualifications the verifiable evidence may need to be above the level of the unit/qualification being assessed. This requirement will be detailed in the “Additional Information” pertaining to specific units/qualifications.

Assessment of competence-based units/qualifications for electrotechnical and mechanical services occupations will require assessors **to have the relevant qualification** that certifies their competence in key technical areas pertinent to the completion of the unit/qualification. (see list in Section 2.5 of this Annex 1).

This occupational competence must include up-to-date knowledge of each industry (for which the assessment is taking place), its settings, legislative and regulatory requirements, codes of practice and guidance.

2.1.5 (Assessor Continuing Professional Development)

The occupational competence of assessors must be updated on a regular basis and be periodically reconfirmed via continuing professional development (CPD) via the assessment centres and quality assured by the Awarding Organisation.

It is the responsibility of each assessor to identify and make use of opportunities for CPD, such as industry conferences, access to trade journals, and SSC and Professional Body/Trade Association events, at least on an annual basis to enhance and upgrade their professional development and technical knowledge. It is imperative that records are kept of all such CPD opportunities/occasions and that they provide evidence of cascading such technical knowledge and industry intelligence to all relevant colleagues.

2.2 Internal Verifiers (IV)

2.2.1 (IV Role and Responsibilities)

SummitSkills considers the main focus of IVs to be the quality assurance of assessment procedures. The IV is also required to have a minimum of occupational experience evidenced by having a Building Services Engineering sector related qualification or proven sector competence/experience plus access to relevant “occupational expertise” to enable them to conduct their role as internal verifier appropriately. This evidence and access to “occupational expertise” is quality assured by the Awarding Organisation

2.2.2. Internal verifiers must:

Be working towards or have achieved the V1 Standard and continue to practice to that standard;

or

Have achieved D34 and possess CPD evidence of practicing to the V1 Standard.

and

Demonstrate an understanding of the assessment process

2.2.3 IV Continuing Professional Development

The occupational experience of IVs must be updated on a regular basis and be periodically reconfirmed via continuing professional development (CPD) via the assessment centres and quality assured by the Awarding Organisation.

It is the responsibility of each IV to identify and make use of opportunities for CPD, such as industry conferences, access to trade journals, and SSC and Professional Body/Trade Association events, at least on an annual basis to enhance and upgrade their professional development and technical knowledge.

It is imperative that records are kept of all such CPD opportunities/occasions.

2.3 External Verifiers (EV)

2.3.1 EV Role and Competence

External Verifiers must;

- be accountable to the Awarding Organisation
- be working towards or have achieved the V2 Standard and continue to practice to that standard
- or
- have achieved D35 and possess CPD evidence of practicing to the V2 Standard and
- and
- demonstrate an understanding of the assessment process
- have no connections with the assessment centre, in order to maintain objectivity
- have verifiable relevant sector competence. This verifiable evidence must be **at or above the level being audited** and include one or more of a relevant occupational qualification (Examples are listed in section 2.5 of this Annex) or be registered with the appropriate industry registration body at the relevant occupational level and grade.
- have sufficient and relevant technical/occupational understanding in the qualification(s)/unit(s) being verified
- be fully conversant with the standards and performance criteria in the units to be assessed
- be able to provide centres with advice and guidance on assessment and internal verification procedures

2.3.2 EV Continuing Professional Development

The occupational competence of EVs must be updated on a regular basis and be periodically reconfirmed via continuing professional development (CPD) and recorded by the assessment centres and quality assured by the Awarding Organisation.

It is the responsibility of each EV to identify and make use of opportunities for CPD, such as industry conferences, access to trade journals, and SSC and Professional Body/Trade Association events, at least on an annual basis to enhance and upgrade their professional development and technical knowledge.

It is imperative that records are kept of all such CPD opportunities/occasions and that they provide evidence of cascading such technical knowledge and industry intelligence to all relevant colleagues.

2.4 Expert Witnesses

Where “**Expert Witnesses**” are used in the assessment process identified above they must be;

- Sector competent individuals who can attest to the learner's performance in the workplace.
- It is not necessary for expert witnesses to hold an assessor qualification, as a qualified assessor must assess the performance evidence provided by an expert witness
- Evidence from expert witnesses must meet the tests of validity, reliability, authenticity and sufficiency
- Expert witnesses will need to demonstrate: -
 1. They have relevant current knowledge of industry working practices and techniques
 2. That they have no conflict of interest in the outcome of their evidence

2.5 Attesting to Occupational Competence for Assessors and EVs

This Assessment Strategy explains that Assessors and External Verifiers must either be able to demonstrate that they are registered and up-to-date with their registration with an appropriate approved industry registration body **or** have one or more of a relevant occupational qualification (See example list below) to ensure that they can be regarded as occupational competent in terms of assessing or verifying the relevant qualifications, and units therein, identified in Annex 1.

NVQs/SVQs at the appropriate level or their equivalents in the Qualifications and Credit Framework

Plumbing

Plumbing (Domestic) (SVQ)

Heating and Ventilating (Rectification of Systems)

Heating and Ventilating Installation (Domestic, Ductwork or Industrial & Commercial)

Refrigeration & Air Conditioning (Commercial & Industrial Air Cond. Systems)

Refrigeration & Air Conditioning (Ammonia Refrigeration Systems)

Refrigeration & Air Conditioning (Commercial & Industrial Refrigeration Systems - Non Ammonia)

Electrotechnical Services (Installation - Buildings & Structures)

Electrotechnical Services (Electrical Maintenance)

Electrotechnical Services (Installing Highway Electrical Systems)

Electrotechnical Services (Installing Structured Cabling Systems)

Electrotechnical Panel Building

Electrical Machine Repair & Rewind

Electrical and Electronic Servicing

Other certificates in competences that have been aligned, and are supplemental, where relevant, to the above:

A relevant brazing or pipe-fitting qualification

Accredited Certification Scheme(ACS)

- CCN1: General Gas Safety
- CEN1: Installation of central heating boilers
- HTR1: Installation of gas fired heaters
- CKR1: Installation of gas cookers
- WAT1: Installation of gas water heaters

BRA/CITB Brazing Assessment

City & Guilds Level 3 NVQ in Gas Emergency Service Operations

City & Guilds Level 2 NVQ in Domestic Natural Gas Installation and Maintenance

City & Guilds Level 3 NVQ in Domestic Natural Gas Installation and Maintenance

Level 2 Vocational Award in Handling Refrigerants (City & Guilds 2078)

Level 2 Vocational Award in ODS F gases (City & Guilds 2079)

Relevant OFTEC and/or HEATAS qualifications

Qualifications recognised under DCLG Competent Person Schemes

Unvented Hot Water external assessment to Building Regulations and/or Building Standards requirements

Water Supply Regulations (1999)

Water Byelaws (2000)

NOTE: Assessors and verifiers who have relevant qualifications pre-NVQ and post-NVQ which are not competence-based must provide verifiable evidence that they are occupationally competent. This evidence must demonstrate that the assessor/verifier has up-to-date knowledge of the industry/occupation (for which the assessment is taking place), its settings, legislative and regulatory requirements, codes of practice and guidance.

Annex 3 - Industry arrangements for the “Assessment of Occupational Competence”

As explained above, the “Assessment of Occupational Competence” is an independent part of the assessment process. Each industry will have its own arrangements which will be compliant with the following requirements.

Details of these assessments will be based on “Industry Recommendations”, see chart below, and will be arranged and agreed between the Awarding Organisation for the units/qualifications in question and the particular industry/occupation using those qualifications. Each Awarding Organisation shall apply the principles specified in Annex 4 of this strategy, thus ensuring a nationally consistent approach of “Assessment of Occupational Competence” for the industry/occupation concerned.

The design, resource implications, administration and quality assurance requirements for each “Assessment of Occupational Competence” will be determined and agreed by SummitSkills, the industry and the Awarding Organisations in order that there is no disadvantage to the candidate or detriment to the industry in terms of individuals being able to demonstrate “occupational competence”.

Any of the above should be cost effective and imply no additional unreasonable burden or expenditure for Awarding Organisations.

Industry	OUTLINE content for each industry’s “Assessment of Occupational Competence”
<u>Electrical and Electronic Servicing</u>	<ul style="list-style-type: none"> ➤ Activities relating to limited scope electrical work ➤ Installation of signal reception systems and equipment
<u>Electrotechnical</u>	<ul style="list-style-type: none"> ➤ Safe isolation ➤ Risk assessments and safe working practices ➤ Inspection, testing and commissioning ➤ Diagnosing and correcting faults
<u>Heat and ventilation / Ductwork</u>	<ul style="list-style-type: none"> ➤ Activities relating to limited scope electrical work ➤ As relevant, the installation, connection and servicing/maintenance of fuel systems and equipment – gas; oil; solid fuel ➤ As relevant, the installation, connection and servicing/maintenance of hot/cold water systems and equipment – unvented water; backflow prevention ➤ As relevant, the installation, connection and servicing/maintenance of ductwork systems and equipment
<u>Refrigeration and Air Conditioning</u>	<ul style="list-style-type: none"> ➤ Activities relating to F Gas installations/service and maintenance ➤ Limited scope electrical work ➤ Thermal pipe joining methods – welding; brazing; soldering ➤ Assessment and certification as required by F Gas and Ozone Depleting Substances Regulations.

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Plumbing

- Activities relating to limited scope electrical work
- Domestic Plumbing & Domestic Heating**
- Assessment in the following competence areas must meet the minimum standards laid down by the following bodies and be capable of facilitating separate operative registration (without further assessment and training) with industry recognised bodies approved to register operatives in the listed competence area.
 - Water Regulations – DEFRA (WRAS)
 - Unvented hot water – Building Regulations/Standards
 - Energy efficiency – Building Regulations/Standards (Part L1 of the Building Regulations in England & Wales)
 - Gas – gas registration provider
 - Oil – OFTEC
 - Solid fuel – HETAS
 - Electrical – defined scope Part P electrics
 - Emerging technologies – MTC proposals (Competent Persons Schemes)

Level 3 Industrial/Commercial Plumbing

- Assessment in the following competence areas must meet the minimum standards laid down by the following bodies and be capable of facilitating separate operative registration (without further assessment and training) with industry recognised bodies approved to register operatives in the listed competence area.
 - Water Regulations – DEFRA (WRAS)
 - Disinfection of water systems DEFRA (WRAS)
 - Unvented hot water – Building Regulations/Standards
 - Gas – gas registration provider

Annex 4 – Arrangements between organisations providing the facilities for the “Assessment of Occupational Competence” and Awarding Organisations

1. Introduction

- 1.1 The “Assessment of Occupational Competence” is a part of the assessment process/requirements for the qualification structures identified in this assessment strategy (Annex 1), it is an independent activity or activities which are conducted as part of the assessment process to confirm occupational competence
- 1.2 Each industry will have its own requirements which are compatible to and reflect their particular necessities in terms of assessing occupational competence (Annex 3) in an “independent structure”. These arrangements and the assessment methodology will be agreed between SummitSkills and Awarding Organisations accordingly.
- 1.3 The **Heating & Ventilating, Plumbing and Refrigeration & Air Conditioning** industries will maximise the facilities in approved delivery/assessment centres who will provide an independent, controlled and designated assessment environment within its learning and assessment resource for the purpose of the “Assessment of Occupational Competence” for the identified qualification in question
- 1.4 The **Electrical & Electronic Servicing (Consumer Electronics; Domestic Appliances; Signal Reception)** industry will maximise the facilities in approved delivery/assessment centres who will provide an independent, controlled and designated assessment environment within its learning and assessment resource for the purpose of the “Assessment of Occupational Competence” for the qualification in question
- 1.5 The **Electrotechnical (Electrical Installation; Electrical Maintenance; Electrical Panel Building; Electric Motor Repair & Rewind)** industry will use an industry prescribed “Assessment of Occupational Competence” facilitated by organisations approved by National Electrotechnical Training (NET)¹.

NOTE 1: NET is an independent industry charity which represents and coordinates particular training initiatives in the electrotechnical industry. Its portfolio includes holding the intellectual copyright for the industry’s recognised and approved “Occupational Competency Assessment” – **AM2** in England, Northern Ireland and Wales. Therefore, NET has the responsibility and accountability for the quality and rigour of the industry’s “Assessment of Occupational Competence” in terms of provision, facilities, health & safety, marking regime and assessment methodology and quality assurance.

2. Purpose

- 2.1 The purpose of these Arrangements is to define the roles and responsibilities of the organisations and bodies involved with facilitating, managing and administering the “Assessment of Occupational Competence” for each industry.
- 2.2 These Arrangements only relate to the qualifications identified in Annex 1 of this assessment strategy or their revisions/replacements as determined by SummitSkills.

3. Roles and Responsibilities

3.1 Heating & Ventilating, Plumbing and Refrigeration & Air Conditioning and Electrical &

Electronic Servicing qualifications:

- 3.1.1 The “Assessment of Occupational Competence” requirements will be determined by SummitSkills in partnership with industry representatives and Awarding Organisations.
- 3.1.2 The “Assessment of Occupational Competence” facilities will be provided by Awarding Organisation approved centres and comply with the requirements identified in 3.1.1
- 3.1.3 Awarding Organisation Internal Verifiers (IVs) and External Verifiers (EVs) will be responsible for quality assuring the “Assessment of Occupational Competence” facilities in accordance with the Awarding Organisation’s compliance requirements.

3.2 Electrotechnical:

For the purpose of these Arrangements organisations approved to provide the “Electrotechnical Assessment of Occupational Competence” will be referred to as “EAOC Centres”

- 3.2.1 The “Electrotechnical Assessment of Occupational Competence” requirements will be determined and prescribed by NET.
- 3.2.2 The “Electrotechnical Assessment of Occupational Competence” facilities will be provided by “EAOC Centres” approved by NET in accordance with the NET industry endorsed Centre Approval Specification.
- 3.2.3 NET will be responsible and accountable for the quality assurance of the “Electrotechnical Assessment of Occupational Competence” facility, assessment methodology and marking regime/criteria.
- 3.2.4 NET will be responsible for quality assuring the rigour and assessment methodology associated with the “Electrotechnical Assessment of Occupational Competence” facilities and assessment requirements in accordance with the NET industry endorsed “EAOC Centres” Approval Specification.
- 3.2.5 NET will provide Awarding Organisation EVs summaries of the annual monitoring visit criteria, procedures and reports, as appropriate, for “EAOC Centres” who are approved to provide the “Electrotechnical Assessment of Occupational Competence” facility.
- 3.2.6 NET will provide Awarding Organisation IVs and EVs, as appropriate, a summary of the principles of the “Electrotechnical Assessment of Occupational Competence” marking regime and criteria in terms of its integrity, robustness and consistency”.
- 3.2.7 NET will work in partnership, as appropriate, with Awarding Organisations to address any candidate grievances related to the “Electrotechnical Assessment of Occupational Competence”.
- 3.2.8 SummitSkills and NET will be responsible for the maintenance of the “Electrotechnical Assessment of Occupational Competence” unit in the QCF.

4. Currency of these Arrangements

It is expected that the currency of these Arrangements will match with the accreditation period of the qualifications, or units therein as relevant, as identified in Annex 1. SummitSkills, in partnership with the Awarding Organisations and any relevant approval organisation(s) associated with these Arrangements will review the Arrangements bi-annually or as appropriate subject to any revisions to the qualifications identified in Annex 1.