



Part of the
Enginuity Group

Qualification Manual

EAL Level 3 NVQ Diploma in Engineering
Maintenance

Qualification Number: 501/0544/9

Issue 4

www.eal.org.uk



Table of Contents

1.0	About EAL.....	2
2.0	Introduction to the Qualification.....	3
3.0	Qualification Structure.....	4
4.0	Centre and Qualification Approval.....	13
5.0	Profiles and Requirements.....	14
6.0	Assessment.....	17
7.0	Quality Control of Assessments.....	20
	Appendix 1: Unit Summaries.....	21
	Appendix 2: Learner Registration and Certification.....	22



1.0 About EAL

For over fifty years, EAL has been the specialist awarding organisation for engineering, manufacturing, building services and related sectors. Developed to the highest technical standards, our qualifications reflect ever-changing industry and regulatory needs. We support the providers of our qualifications with an unparalleled level of service to ensure that learners are well prepared to take the next step in their journeys, whether study, an apprenticeship or work.

Through industry partnerships with EAL centres and training providers, decades of experience supporting our core sectors, and our role as part of the Enginuity Group, we have built unrivalled knowledge and understanding of employer skills needs. As a result, EAL's skills solutions, including apprenticeship End-Point Assessment, External Quality Assurance and qualifications are respected and chosen by employers to deliver real lifelong career benefits for all our learners. That's why in the last ten years, 1.2 million people across the UK have taken EAL qualifications.

1.1 Equal Opportunities and Diversity

EAL expects its centres to enable learners to have equal access to training and assessment for qualifications in line with equalities legislation. Further details can be located in the EAL Equal Opportunities and Diversity Policy:

<http://www.eal.org.uk/centre-support/centre-support/policies-and-important-documents>

1.2 Customer Experience and Feedback

Customer Experience is a fundamental part of EAL's commitment to you. EAL aims to ensure that all customers receive a high-quality efficient service. We are always interested in feedback and if you have any comments or feedback on our qualifications, products or services, please contact the Customer Experience team:

EAL Customer Experience

Tel: +44 (0)1923 652 400

Email: Customer.Experience@eal.org.uk

2.0 Introduction to the Qualification

This NVQ qualification is gained when all the necessary units have been achieved. The centre will then be able to apply for the learner's NVQ certificate of achievement. The learner will also receive a certificate of unit credit, listing all the units they have completed, which can be used as accredited prior learning to complete a qualification.

2.1 Qualification Support Materials

The following assessment support materials are available for this qualification:

- Units of competence

This qualification is made up of a number of units of competence, which EAL has derived from the National Occupational Standards (NOS) which set out the collective performance, skills requirements and underpinning knowledge requirements. These documents allow both the apprentices and the assessor to record the progress through the qualification. The units contain the performance to be assessed, the knowledge to be assessed and the evidence required from the apprentices to demonstrate their skills.

All units in this qualification contain the following information:

- Unit title
- Unit summary
- Performance and skills to be assessed and evidenced
- Underpinning knowledge to be assessed and evidenced.

2.2 Learner's Portfolio Building and Referencing

For guidance to assessment and exemplars on completing documentation including assessment planning documentation refer to EAL centre guidance.

For further information please contact:

EAL Customer Experience

Tel: +44(0)1923 652 400

Email: Customer.Experience@eal.org.uk

2.3 Achievement of the Qualification

The EAL Level 3 NVQ Diploma in Engineering Maintenance has been designed to allow a learner to specialise in **one** of the **thirteen** pathways listed.

In order to achieve this qualification each learner will be required to attain **four** Mandatory Units, the required number of optional units and the specified number of additional units, as detailed within the selected pathway. The overall grading type for this qualification is Pass/Fail. Units will be assessed and endorsed against the learners chosen discipline.

Learners will be required to create a Portfolio of Evidence to prove their competence in the workplace. Learners should therefore select the unit that reflects the job they carry out in the workplace to be able to obtain the required workplace evidence.

Learners will be assessed in relation to their chosen discipline and endorsed accordingly. The endorsement will be printed on the certificate to show future employers which discipline was covered during their assessment.

3.0 Qualification Structure

3.1 Rule of Combination

This qualification has **167** Credits, a minimum of **303** Guided Learning Hours (GLH) and has a Total Qualification Time (TQT) of **1670** hours, the notional time required by the learner to complete the qualification. The learner must complete the required number of **mandatory** units of competence, followed by the required number of optional units of competence, from the **one** of the **thirteen** pathways listed.

Mandatory Units for all Pathways:

Learners must complete all **four** units from the following:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM2/001	Complying with statutory regulations and organisational safety requirements	2	5	35	A/601/5013
QENM2/002	Using and interpreting engineering data and documentation	2	5	25	Y/601/5102
QENM3/003	Working efficiently and effectively in engineering	3	5	25	K/601/5055
QENM3/004	Handing over and confirming completion of maintenance or installation activities	3	20	35	T/600/5516

Pathway EMA: Mechanical

Learners must complete **both** of the following units:

QENM3/005	Carrying out fault diagnosis on mechanical equipment	3	50	60	T/600/5533
QENM3/006	Maintaining mechanical equipment	3	70	119	H/600/5544

Learners must complete **two** units from the following:

QENM3/007	Restoring mechanical components to usable condition by repair	3	47	91	A/600/5551
QENM3/008	Producing replacement components for maintenance activities	3	47	91	H/600/5558
QENM3/009	Carrying out preventative planned maintenance on mechanical equipment	3	38	74	A/600/5565
QENM3/010	Carrying out condition monitoring of plant and equipment	3	39	81	A/600/5582
QENM3/080	Assisting in the installation of mechanical equipment	3	49	161	J/600/5634

Pathway EMB: Electrical

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/011	Carrying out fault diagnosis on electrical equipment and circuits	3	50	60	H/600/5592
QENM3/012	Maintaining electrical equipment	3	70	119	Y/600/5606
QENM3/013	Modifying or rewiring electrical circuits	3	35	63	D/600/5610

Learners must complete **two** units from the following:

QENM3/010	Carrying out condition monitoring of plant and equipment	3	39	81	A/600/5582
QENM3/014	Testing electrical equipment and circuits	3	50	60	H/600/5656
QENM3/015	Carrying out preventative planned maintenance on electrical equipment	3	38	74	F/600/5664
QENM3/081	Assisting in the Installation of electrical/electronic equipment	3	48	161	H/600/5642

Pathway EMC: Electronic

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/016	Carrying out fault diagnosis on electronic equipment and circuits	3	50	60	Y/600/5671
QENM3/017	Testing electronic equipment and circuits	3	50	60	A/600/5677
QENM3/018	Repairing electronic equipment	3	62	81	D/600/5946

Pathway EMD: Fluid Power

Learners must complete **both** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/019	Carrying out fault diagnosis on fluid power equipment and circuits	3	50	60	T/600/5953
QENM3/020	Maintaining fluid power equipment	3	70	119	M/600/5983

Learners must complete **two** units from the following:

QENM3/010	Carrying out condition monitoring of plant and equipment	3	39	81	A/600/5582
QENM3/021	Carrying out preventative planned maintenance on fluid power equipment	3	38	74	J/600/5990
QENM3/022	Testing fluid power equipment and systems	3	46	56	D/600/6000
QENM3/082	Assisting in the installation of fluid power equipment	3	48	161	L/600/5649

Pathway EME: Engineered Systems

Learners must complete the **one** following unit:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/023	Carrying out fault diagnosis on engineered systems	3	53	95	L/600/6011

Learners must complete **two** units from the following:

QENM3/024	Maintaining mechanical equipment within an engineered system	3	81	161	Y/600/5413
QENM3/025	Maintaining electrical equipment within an engineered system	3	81	161	M/600/5417
QENM3/026	Maintaining fluid power equipment within an engineered system	3	81	161	A/600/5422
QENM3/027	Maintaining process controller equipment within an engineered system	3	81	161	Y/600/5427

Learners must complete **one** unit from the following:

QENM3/010	Carrying out condition monitoring of plant and equipment	3	39	81	A/600/5582
QENM3/028	Carrying out preventative planned maintenance on engineered systems	3	38	74	F/600/5440
QENM3/083	Assisting in the installation of equipment to produce an engineered system	3	48	161	T/600/5659

Pathway EMF: Services Maintenance

Learners must complete **both** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/029	Reading and extracting information from service drawings and specifications	3	5	25	J/600/5469
QENM3/030	Carrying out fault diagnosis on services and systems	3	50	60	R/600/5474

Learners must complete **two** units from the following:

QENM3/031	Maintaining fresh water distribution systems and equipment	3	70	119	K/600/5481
QENM3/032	Maintaining waste/foul water distribution systems and equipment	3	70	119	H/600/5494
QENM3/033	Maintaining workplace environmental control systems	3	70	119	T/600/5497
QENM3/034	Maintaining emergency power generation equipment	3	70	119	T/600/5502
QENM3/035	Maintaining heating and ventilation systems	3	70	119	L/600/5506
QENM3/036	Maintaining air conditioning and ventilation systems	3	70	119	H/600/5513
QENM3/037	Maintaining gas distribution systems and equipment	3	70	119	J/600/5519
QENM3/038	Maintaining compressed air systems and equipment	3	70	119	Y/600/5525
QENM3/039	Maintaining process control systems	3	70	119	H/600/5530
QENM3/040	Maintaining instrumentation and control systems	3	70	119	J/600/5536
QENM3/041	Maintaining industrial refrigeration equipment	3	70	119	L/600/5540
QENM3/042	Maintaining environmental control equipment	3	70	119	M/600/5546
QENM3/072	Maintaining medical device and surgical instrument decontamination equipment	3	70	119	K/600/5609
QENM3/073	Maintaining medical gas pipeline systems and equipment	3	70	119	J/600/5617

Learners must complete **one** unit from the following:

QENM3/010	Carrying out condition monitoring of plant and equipment	3	39	81	A/600/5582
QENM3/043	Carrying out preventative planned maintenance on services systems and equipment	3	38	74	F/600/5552
QENM3/084	Assisting in the installation of engineering services equipment	3	48	161	R/600/5667

Pathway EMG: Lift Servicing

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/044	Carrying out fault diagnosis on lifts	3	50	60	T/601/2224
QENM3/045	Inspecting and servicing lift equipment	3	38	74	K/600/5495
QENM3/046	Checking lift function	3	50	60	R/600/5507
QENM3/047	Rectifying faults in lifts	3	47	91	A/600/5520

Pathway EMH: Lift Repair

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/044	Carrying out fault diagnosis on lifts	3	50	60	T/601/2224
QENM3/046	Checking lift function	3	50	60	R/600/5507
QENM3/047	Rectifying faults in lifts	3	47	91	A/600/5520
QENM3/048	Repairing/replacing lift doors, chains, ropes and equipment	3	47	91	A/600/5534

Pathway EMI: Escalator Repair and Service

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/049	Carrying out fault diagnosis on escalators	3	50	60	R/600/5541
QENM3/050	Rectifying faults in escalators	3	47	91	R/600/5555
QENM3/051	Inspecting and servicing escalators	3	38	74	R/600/5457
QENM3/052	Testing and reinstating escalator installations	3	46	56	T/600/5564

Pathway EMJ: Communication Electronics

Learners must complete **one** unit from the following:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/016	Carrying out fault diagnosis on electronic equipment and circuits	3	50	60	Y/600/5671
QENM3/053	Carrying out fault diagnosis on communication electronic systems	3	50	60	Y/600/5573

Learners must complete **two** units from the following:

QENM3/017	Testing electronic equipment and circuits	3	50	60	A/600/5677
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OR (but not both):

QENM3/018	Repairing electronic equipment	3	62	81	D/600/5946
QENM3/054	Testing communication-electronic systems	3	50	60	A/600/5579

OR (but not both):

QENM3/055	Repairing communication-electronic systems	3	62	81	M/600/5465
QENM3/056	Carrying out preventative planned maintenance on communication	3	38	74	D/600/5476
QENM3/057	Modifying communication	3	35	63	L/600/5585
QENM3/058	Configuring communication	3	51	77	Y/600/5590
QENM3/059	Installing communication	3	32	81	J/600/5598

Pathway EMK: Servicing Medical Equipment

Learners must complete **all** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/060	Carrying out fault diagnosis on medical equipment	3	50	60	A/600/5601
QENM3/061	Testing medical equipment	3	50	60	H/600/5608
QENM3/062	Carrying out scheduled servicing on medical equipment	3	38	74	A/600/5484

Learners must complete **three** of the following units:

QENM3/063	Servicing cardiovascular equipment	3	70	119	R/600/5491
QENM3/064	Servicing physiological monitoring and infusion equipment	3	70	119	F/600/5499
QENM3/065	Servicing anaesthetic and ventilation equipment	3	70	119	Y/600/5508
QENM3/066	Servicing operating theatre and surgical equipment	3	70	119	F/600/5518
QENM3/067	Servicing medical imaging equipment	3	70	119	T/600/5581
QENM3/068	Servicing laboratory equipment	3	70	119	R/600/5586
QENM3/069	Servicing dental equipment	3	70	119	D/600/5591
QENM3/070	Servicing medical therapeutic equipment	3	70	119	F/600/5597
QENM3/071	Servicing mechanical and electromechanical assistive technology equipment	3	70	119	F/600/5602
QENM3/086	Servicing radiotherapy equipment	3	70	119	M/506/6272
QENM3/087	Servicing on clinical computing equipment	3	70	119	K/506/6271

Pathway EML: Instrumentation Control

Learners must complete **both** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/074	Carrying out fault diagnosis on instrumentation and control equipment and circuits	3	50	60	Y/600/5637
QENM3/075	Maintaining instrumentation and control equipment and circuits	3	70	119	L/600/5621

Learners must complete **two** of the following units:

QENM3/076	Carrying out preventative planned maintenance on instrumentation and control equipment	3	38	74	T/600/5628
QENM3/077	Repairing/overhauling instrumentation and control equipment	3	47	91	M/600/5644
QENM3/078	Testing and calibrating instrumentation and control equipment and circuits	3	50	60	J/600/5651
QENM3/085	Assisting in the installation of instrumentation and control equipment	3	48	161	F/600/6068

Pathway EMM: Wind Turbine Engineering, Operations and Maintenance

Learners must complete **both** of the following units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QENM3/088	Fault location and diagnosing faults on wind turbine systems and components	3	30	150	F/650/2619
QENM3/089	Configure wind turbine pitch and yaw systems	3	16	80	K/650/2620

Learners must complete **one** of the following units:

QENM3/090	Configure wind turbine control systems	3	7	35	L/650/2621
QENM3/091	Configure wind turbine converter systems	3	7	35	M/650/2622



4.0 Centre and Qualification Approval

Centres wishing to run this qualification will need to comply with this qualification manual and EAL's centre approval criteria for the qualification. Centres must also put in place the appropriate physical and human resources and administration systems to deliver the qualification effectively.

For **existing** EAL centres to put this qualification on their centre remit:
Create and complete a qualification approval application form in Smarter Touch and submit to EAL.

For non EAL centres to gain centre approval to run this qualification, EAL Customer Experience will be happy to help. Please contact them on:

EAL Customer Experience
Tel: +44(0)1923 652 400
Email: Customer.Experience@eal.org.uk

5.0 Profiles and Requirements

5.1 Staff Responsible for Registering and Certification of Learners

Centres are required to appoint a suitable member of staff who can take responsibility for registering learners onto qualifications, submitting entries for assessments to EAL and taking receipt of external assessment procedures (if appropriate). They may also be responsible for applying to EAL for learner certificates. The role may be undertaken by the same person who undertakes quality assurance.

5.2 Learners

The Level 3 Units have been designed to cover those learners who are either:

- Individuals that need to acquire Engineering Maintenance Technician competencies for the engineering sectors.
- Individuals employed in the Engineering Maintenance Technician engineering sectors but require additional competencies as part of an existing job role or to enable career progression.

There are no formal entry requirements for this qualification. Learners must have been initially assessed to ensure they have both the potential and opportunity to achieve the assessment criteria set out in the qualification units and gain evidence from the workplace.

If the qualification is used to support implementation and delivery of an apprenticeship standard, the formal entry requirements will be listed within the standard assessment plan.

Learners are required to obtain evidence against each assessment criteria when competence has been proven.

Performance, Skills and Knowledge evidence must be sufficiently covered and recorded in the Evidence Reference boxes contained within the units, to ensure all criteria has been met.

5.3 Assessors

Assessment must be carried out by competent assessors who, as a minimum, must hold the Level 3 Award in Assessing Competence in the Work Environment. Current and operational Assessors that hold units D32 and/or D33 or A1 and/or A2 as appropriate to the assessment being carried out, will not be required to achieve the Level 3 Award as they are still appropriate for the assessment requirements set out in this Unit Assessment Strategy. However, they will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace assessment to the most up to date National Occupational Standards (NOS).

Assessor technical requirements

Assessors must be able to demonstrate that they have verifiable, relevant and sufficient technical competence, to evaluate and judge performance and knowledge evidence requirements, as set out in the relevant learning outcomes and associated performance criteria within the unit.

This will be demonstrated either by holding a relevant technical qualification or by proven industrial experience of the technical areas to be assessed. The assessor's competence must, at the very least, be at the same level as that required of the learners in the units being assessed.

Assessors must also:

Be fully conversant with the EAL assessment recording documentation used for the units of competence, against which the assessments and verification are to be carried out, plus any other relevant documentation and system and procedures to support the QA process.

5.4 Internal Quality Assurers

Internal quality assurance (IQA) must be carried out by competent IQA's that as a minimum must hold the Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practices. Current and operational IQA that hold internal verification units V1 or D34 will not be required to achieve the Level 4 Award as they are still appropriate for the verification requirements set out in this Unit Assessment Strategy.

Internal quality assurers will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace Quality Assurance (verification) of assessment processes and practices to the most up to date NOS.

Internal quality assurers will also be expected to be fully conversant with the terminology used in the units of competence against which the assessments and verification are to be carried out, the appropriate Regulatory Body's systems and procedures and the relevant EAL documentation, systems and procedures within which the assessment and verification is taking place.

Specific technical requirements for persons undertaking the role of external quality assurance

Internal and external quality assurers for the units of competence must be able to demonstrate that have verifiable, sufficient and relevant industrial experience, and must have a working knowledge of the processes, techniques and procedures that are used in the engineering industry.

The following tables show the recommended levels of technical competence for assessors, internal and external quality assurers.

Technical requirements for Assessors and Quality Assurers

Position	Prime activity requirements	Support activity requirements	Technical requirements (see notes)
Assessor	Assessment skills	Internal Quality Assurance Systems	Technical competence in the areas covered by the units being assessed
Internal Quality Assurance (IQA)	Quality Assurance skills	Assessment knowledge	Technical understanding of the areas covered by the qualification
External Quality Assurance (EQA)	Quality Assurance skills	Assessment understanding	Technical awareness of the areas covered by the qualification

Notes

1. Technical competence is defined here as a combination of practical skills, knowledge, and the ability to apply both, in familiar and new situations, within a real working environment.
2. Technical understanding is defined here as having a good understanding of the technical activities being assessed, together with knowledge of relevant Health & Safety implications and requirements of the assessments.
3. Technical awareness is defined here as a general overview of the subject area, sufficient to ensure that assessment and evidence are reliable, and that relevant Health and Safety requirements have been complied with.
4. The competence required by the assessor, internal verifier, and external verifier, in the occupational area being assessed, is likely to exist at three levels as indicated by the shaded zones in the following table.

Technical competence Job role:	An ability to discuss the general principles of the competences being assessed	An ability to describe the practical aspects of the competences being assessed	An ability to demonstrate the practical competences being assessed
Assessor			
Internal Quality Assurance			
External Quality Assurance			

6.0 Assessment

6.1 Assessment environment

Assessment of all learners in the engineering maintenance related occupations, against the NOS developed by the employers in the engineering sector, will be undertaken in accordance with the following criteria: -

- Evidence of occupational competence should be generated and collected through real work activities in a real working environment.
- Real work activities are those undertaken to provide a secure product or service under typical business conditions.
- A real working environment is one that reflects typical employment conditions relevant to the work activities being assessed.
- The evidence collected under these conditions should also be as naturally occurring as possible.

Taking account of the above, it is not acceptable to undertake assessments in a classroom, or similar environment that has been set up specifically for training. Where opportunities for evidence collection are not available at the workplace, simulation is permitted, in accordance with the criteria listed in section 6.3 below.

6.2 Access to assessment

16 is the minimum age limit required by learners to undertake the units unless this is a legal requirement of the process or the environment. Assessment is open to any learner who has the potential to achieve the criteria set out in the units.

When used as part of an apprenticeship standard apprentices must have achieved the requirements of the foundation phase of the apprenticeship in line with the apprenticeship standard they are working towards.

Aids or appliances, which are designed to alleviate disability, may be used during assessment, providing they do not compromise the standard required.

6.3 Carrying out assessment

The EAL Level 3 Diploma in Engineering Maintenance units have been specifically developed to cover a wide range of activities.

The evidence produced for the units will, therefore, depend on the learner's choice of "bulleted items" listed in the unit performance criteria. Where the performance criteria gives a choice of bulleted items (for example 'any three from five'), assessors should note that learners do not need to provide evidence of the other items to complete the unit, particularly where these additional items may relate to other activities or methods that are not part of the learners' normal workplace activity or area of expertise.

Performance evidence:

Performance evidence must be the main form of evidence gathered. In order to demonstrate consistent competent performance for a unit, **three** different examples of performance of the unit activity will be required, unless otherwise stated. Items of performance evidence often contain features that apply to more than one unit and can be used as evidence in any unit where they are suitable.

- Products of the learners' work, such as items that have been produced or worked on, plans, charts, reports, standard operating procedures, documents produced as part of a work activity, records, or photographs of the completed activity.

Together with:

- Evidence of the way the learners carried out the activities, such as witness testimonies, assessor observations or authenticated learner reports of the activity undertaken.

Competence performance is more than just carrying out a series of individual set tasks. Many of the units contain statements that require the learner to provide evidence that proves they are capable of combining various features and techniques. Where this is the case, separate fragments of evidence would not provide this combination of features and techniques and, therefore, will not be acceptable as demonstrating competent performance.

Simulation

Direct evidence produced through normal performance in the workplace is the primary source for meeting the evidence requirements of this qualification.

If the learner cannot meet all assessment criteria under naturally occurring activities in their workplace and need to simulate a specific task, please refer to the guidance notes "Centre Guidance for Developing Assessments for Simulation/Replication" in smarter touch.

Assessing knowledge and understanding

Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide enough evidence in this area. Where the learner's knowledge and understanding (and the handling of contingency situations) is not apparent from performance evidence, it must be assessed by other means and be supported by suitable evidence.

EAL expects oral questioning and practical demonstrations to be used, as these are considered the most appropriate for these units. Assessors should ask enough questions to make sure that the learner has an appropriate level of knowledge and understanding, as required by the unit. EAL may choose other methods, which must be supported by a suitable rationale.

The achievement of the specific knowledge and understanding requirements of the units cannot simply be inferred by the results of tests or assignments from other units, qualifications, or training programmes. Where evidence is submitted from these sources, the assessor must, as with any assessment, make sure the evidence is valid, reliable, authentic, directly attributable to the learner, and meets the full knowledge and understanding requirements of the unit.

Where oral questioning is used the assessor must retain a record of the questions asked, together with the learner's answers.

Please note: Knowledge and understanding can be demonstrated in a number of different ways.

Witness testimony

Where 'observation' is used to obtain performance evidence, this must be carried out against the unit assessment criteria. Best practice would require that such observation is carried out by a qualified Assessor. If this is not practicable, then alternative sources of evidence may be used.

For example, the observation may be carried out against the assessment criteria by someone else that is in close contact with the learner. This could be a team leader, supervisor, mentor or line manager who may be regarded as a suitable witness to the learner's competency. However, the witness must be technically competent in the process or skills that they are providing testimony for, to at least the same level of expertise as that required of the apprentice. It will be the responsibility of the assessor to make sure that any witness testimonies accepted as evidence of the learner's competency are reliable, auditable and technically valid.

7.0 Quality Control of Assessments

General

There are two major points where EAL interacts with the Centre in relation to the external quality control of assessment for a qualification and these are:

- Approval - when a Centre take on new qualifications, EAL, normally through an external verifier ensures that the Centre is suitably equipped and prepared to deliver the new qualification.
- Monitoring - throughout the ongoing delivery of the qualification EAL, through external verification monitoring and other mechanisms must maintain and the quality and consistency of assessment of the qualification.

Approval

In granting approval, EAL, normally through its external verifiers must ensure that the prospective Centre:

- Meets any procedural requirements specified by EAL
- Has sufficient and appropriate physical and staff resources
- Meets relevant health and safety and/or equality and access requirements
- Has a robust plan for the delivery, assessment and quality assurance for the qualification/units.

EAL may decide to visit a Centre to view evidence or may undertake this via other means and there must be a clear rationale for the method(s) deployed.

Monitoring

EAL, through external monitoring and other mechanisms will ensure that a strategy is developed and deployed for the ongoing EAL monitoring of the Centre.

This strategy must be based on an active risk assessment of the Centre. In particular, the strategy must identify the apprentice, assessor, and internal verifier sampling strategy to be deployed and the rationale behind this:

- That the Centre's internal quality assurance processes are effective in assessment.
- That sanctions are applied to a Centre where necessary and that corrective actions are taken by the Centre and monitored by the EAL external quality assurer (EQA).
- That reviews of EAL's external auditing arrangements are undertaken.



Part of the
Enginuity Group

Appendix 1: Unit Summaries

All QENM3 unit summaries are available in the Qualification Specification unit summaries document. For more information, please visit the [EAL Qualification Website](#)

Appendix 2: Learner Registration and Certification

Learners must be registered with EAL on a code which relates to the qualification, this must be completed prior to assessment. Both learner registration and certification can be completed online at the [EAL website](#). For paper-based registration and certification use the appropriate forms. These are located on the EAL Website, for guidance on registration and certification please refer to the Registration and Certification User Guide.
To register the learner on the chosen qualification/pathway code:

Qualification Title:	Code:
Level 3 NVQ Diploma in Engineering Maintenance	501/0544/9

To register the learner on the chosen Qualification/Pathway Code

Pathway Title:	Code:
Mechanical	501/0544/9EMA
Electrical	501/0544/9EMB
Electronic	501/0544/9EMC
Fluid power	501/0544/9EMD
Engineered systems	501/0544/9EME
Services maintenance	501/0544/9EMF
Lift servicing	501/0544/9EMG
Lift repair	501/0544/9EMH
Escalator repair and service	501/0544/9EMI
Communication electronics	501/0544/9EMJ
Servicing medical equipment	501/0544/9EMK
instrumentation and control	501/0544/9EML
Wind turbine engineering, operations and maintenance	501/0544/9EMM



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