

ST1455 Level 3 Wind turbine maintenance technician assessment plan

Introduction

This Apprenticeship Assessment Plan (AAP) sets out the requirements for the assessment of the Level 3 Wind turbine maintenance technician apprenticeship. It should be read in conjunction with the General Requirements for Apprenticeship Assessment. Where there is conflict between this AAP and the General Requirements, this AAP takes precedence. Assessment organisations must also comply with the relevant regulatory framework for apprenticeship assessment.

It is important that the assessment of apprentices is proportionate, valid, and provides reliable evidence of an apprentice's attainment of the relevant knowledge and skills. As such, assessment organisations must design assessments to ensure:

- employers have confidence that the apprentice has reached the expected performance standard
- apprentices are sufficiently secure in their knowledge and skills, so that they could demonstrate their competence in different contexts example, a different workplace

Assessment Outcomes

The assessment outcomes group and summarise the knowledge and skills that must be demonstrated in assessments. All assessment outcomes must be assessed.

Knowledge and skills statements in **bold** are mandatory and must be assessed in every version of the assessment that is made available.

Knowledge and skills statements which offer opportunities to develop functional English and maths are identified with an asterisk.

Assessment Outcome	Mapping
<p>AO1: Health, safety, and environmental understanding and compliance</p> <p>Understands all health and safety requirements and procedures relevant to the role and complies with these. Correctly selects, prepares and uses safety equipment including PPE and equipment and restraints for working at height and understands and follows emergency procedures. Understands environmental and sustainability principles and requirements and complies with these.</p>	<p>K3 K4 K5 K7 K8 K9 K10</p> <p>S4 S5 S8 S9 S10 S12</p>
<p>AO2: Wind turbine engineering and technical knowledge</p> <p>Knows and understands mathematical, electrical and mechanical engineering principles relevant to the role and how these apply to practical contexts. Has technical knowledge and understanding of the function, application and operation of wind turbines, their systems and components.</p>	<p>K11* K12* K13 K14* K15* K16* K19 K20 K21* K22 K23 K24, K25</p>
<p>AO3 Work planning and preparation</p> <p>Plans and carries out tasks and manages time effectively, following company policies and technical documents and escalating any issues where appropriate. Prepares work environments, plant, equipment and resources for maintenance work and selects, prepares and correctly uses hand and powered tools and measuring, lifting and handling equipment as required by tasks.</p>	<p>K1 K2 K17 K18 K31*</p> <p>S1 S2 S3 S6 S7 S11 S14 S23*</p>

Assessment Outcome	Mapping
<p>AO4: Inspection, testing, maintenance and repair of wind turbine plant, equipment and components</p> <p>Inspects and tests wind turbine plant and equipment; carries out preventative maintenance, diagnoses faults and repairs or replaces components.</p>	<p>K27 K28 K29 K30 K32</p> <p>S13* S15 S16 S17 S18 S19 S20 S21 S22* S24* S25</p>
<p>AO5: Communication and using digital systems</p> <p>Communicates information using non-written methods and uses written methods to communicate and document information. Uses IT and digital systems and maintains data securely.</p>	<p>K34, K35, K36, K37</p> <p>S26 S27* S28* S29</p>

Assessment requirements

Assessment organisations must set apprenticeship assessments. Assessment organisations should consider how technology and digital tools can support innovation and efficiency.

Assessment organisations must design apprenticeship assessments to include an **observation**

Any additional assessment(s) must be selected from the following list of methods to ensure the assessment outcomes are met in full:

- **portfolio**
- **written assessment**

Assessment organisations must have due regard to the Wind Turbine Safety Rules.

Apprentices may be assessed at any appropriate point during their apprenticeship programme.

Assessments may be designed to allow a centre or training provider to mark assessments. The assessment organisation is responsible for ensuring all assessments are sufficiently reliable and valid, and for the accuracy of any centre or training provider marking.

Practical and safety considerations relating to this occupation, the location of work sites and the nature of plant and equipment being worked on and access to this, mean that direct observation of skills will need to be undertaken by an assessor who is an

employee with the necessary permissions to oversee work on the relevant plant and equipment (an employer-assessor). The following skills have been identified by employers as safety-critical and must be directly observed by the employer-assessor: **S4, S8, S9, S11, S15, S16, S17, S18, S19, S20.**

Performance descriptors

Performance descriptors describe the level of performance required to achieve a pass or distinction grade. Assessment organisations must design assessments that align with these descriptions.

Performance Category	Pass	Distinction
Applied Knowledge	Demonstrates sound understanding and selection of engineering principles and of the function, application and operation of wind turbines, their systems and components.	Demonstrates fluent and insightful understanding and selection of engineering principles and of the function, application and operation of wind turbines, their systems and components.
Applied Skills	Plans and carries out inspection, testing and maintenance of wind turbine plant and equipment, correctly diagnosing faults and repairing or replacing components to required quality standards.	Demonstrates confidence, fluency and efficiency in planning and carrying out inspection, testing, maintenance and repair tasks.
Regulatory and Procedural Awareness	Demonstrates sound awareness and compliance with health and safety and environmental requirements and procedures	Demonstrates comprehensive knowledge and understanding of health and safety and environmental requirements and procedures incorporating compliance into their planning of tasks
Communication and Collaboration	Communicates effectively to share information verbally and in writing.	Communicates effectively and confidently with a range of colleagues and stakeholders adapting to purpose and audience and

demonstrating
commercial awareness.

**Information Use and
Decision Making**

Uses technical documents, data and uses diagnostic tools and techniques to accurately identify faults, issues and solutions.

Uses technical documents, data and diagnostic tools and techniques confidently and fluently to identify faults and to justify decisions.

**Responsibility and
Autonomy**

Plans and carries out tasks effectively with minimal supervision and within the limits of their responsibility escalating issues where appropriate.

Manages own work within limits of autonomy routinely co-ordinating with other business functions with minimal requirement for supervisory input.

Professional recognition

This apprenticeship aligns with the professional body recognition detailed in the occupational standard.

Please contact the relevant professional body for further information.

Additional qualification

The qualification detailed in the occupational standard must be completed before the end of the apprenticeship.