



Australian Government

Assessment Requirements for MEM24005 Perform basic eddy current testing

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM24005B Perform basic eddy current testing.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications, standards and other reference documentation for performing basic eddy current testing
- preparing the area for testing and identifying discontinuities and defects in accordance with procedures
- carrying out eddy current testing using techniques and equipment appropriate for material/s to be tested, checking and confirming basic indicators and identifying all defects in accordance with procedures on at least two occasions
- undertaking numerical operations and calculations associated with performing eddy current testing
- reporting test results in accordance with procedures and customer service requirements on at least two occasions.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- cleaning and preparation processes, procedures and work health and safety (WHS) requirements in relation to the preparation process
- visual inspection
- eddy current instrument set-up and probe selection
- established assessment procedures and techniques
- types of discontinuities and their consequences
- procedure for carrying out basic eddy current testing and the necessary system verification checks
- testing and compliance standards (organisation specific)
- basic principles of electricity, magnetism, electromagnetism and eddy current testing
- basic electrical principles

- test principles
- overview of factors affecting eddy current response
- basic metallurgy
- limitations of eddy current testing
- basic maintenance and storage procedures for testing equipment
- standard defects and comparative techniques
- industry-specific and workplace relevant common basic defects
- standard recording and reporting formats and methods and/or procedures for reporting test results
- the following tests:
 - wheel bead seat
 - production line
 - tube production line
 - conductivity measurement methods.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing basic eddy current testing at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015 or its replacement* and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>