Assessment Requirements for MEM18069 Maintain, repair instrumentation process control analysers

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Modification History

Release 1. Supersedes and is equivalent to MEM18069B Maintain, repair instrumentation process control analysers

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting engineering specifications, technical information, circuit diagrams, engineering drawings, manufacturers' manuals and supplier catalogues and obtaining relevant data with respect to maintaining, repairing instrumentation process control analysers
- performing scheduled/preventative maintenance and determining correct function or the malfunction of process control analysers and recording test results
- identifying, monitoring and localising faults by confirming correct action of process control analysers using a structured diagnostic approach, recording/reporting faults and malfunctions and preparing sequential action plan to correct faults
- checking process control analysers and marking for replacement, repair or overhaul
- repairing/overhauling faulty items using appropriate tools, equipment, techniques and procedures to manufacturers' specifications
- refitting process control analysers and preparing for testing and calibration
- calibrating process control analysers against appropriate physical standards using appropriate calibration devices, equipment and techniques
- testing calibrated process control analysers using appropriate equipment by interpreting relevant calibration and analysis data with respect to the given process controller
- recommissioning process control analysers
- completing all service reports according to SOPs.

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)
- specifications for the process control analyser to be installed
- maintenance to be undertaken and the frequency at which process control analysers are to be maintained

- procedures for:
    - maintaining process control analysers
    - determining correct function or the malfunction of process control analysers
    - recording test results and procedures for monitoring apparent faults detected from test results
    - reporting/recording faults and/or malfunctions in process control analysers
    - fitting/refitting process control analysers including preparing items
    - calibrating and recommissioning process control analysers
    - reporting/recording service undertaken on process control analysers and reasons for recording service undertaken
- test equipment and diagnostic techniques required to determine correct function or malfunction of process control analysers
- probable causes of variations between test results and specifications
- action to be taken to return the process control analysers to specification and reasons for undertaking the proposed actions
- persons to be consulted in planning the corrective action and sequence of actions to be taken
- tools, equipment and techniques required to test components and reasons for marking components for repair, replacement and/or overhaul
- specifications for the component(s) to be replaced
- preparation requirements of items to be fitted/refitted
- tools, techniques and equipment required to repair/overhaul and fit/refit process control analysers
- preparation requirements of process control analysers prior to testing and calibration
- physical standards against which process control analysers are to be calibrated
- devices, equipment and techniques required to calibrate process control analysers
- equipment and procedures for testing calibrated process control analysers
- probable causes of any variations/deviations detected
- action to be taken to return the process control analyser to specification and reasons for undertaking the proposed action(s)
- appropriate measuring techniques, tools and equipment.

Assessment Conditions

- Assessors must:
    - have vocational competency in maintaining, repairing instrumentation process control analysers 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. This must 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