



Australian Government

**Assessment Requirements for UEEIC0030
Set up and adjust advanced PID process
control loops**

Release: 1

Assessment Requirements for UEEIC0030 Set up and adjust advanced PID process control loops

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

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

- adjusting control loops to satisfy process demand and quality
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including
 - risk control measures
- carrying out tuning without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy principles
- connecting and setting up testing/measuring devices
- dealing with unplanned situations with the approval of authorised person/s
- determining control set-point and adjusting control loop in accordance with relevant industry standards and process specifications
- determining the need to inspect, test and measure live work
- documenting control loop settings in accordance with workplace procedures
- identifying advanced control loop parameters
- inspecting and isolating circuits/machines/plant
- inspecting quality of process output to ensure control loop is tuned
- obtaining tools, equipment and testing devices required for work
- preparing to tune control loops with advanced functions
- tuning control loop for advanced functions.

Knowledge Evidence

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

- configuration of advanced control loops, including cascade, ratio and feed forward
- inspection and testing procedures
- isolation procedures
- problem-solving techniques
- relevant advanced control loop parameters

- relevant advanced process control, including:
 - connection of controllers
 - process controllers
 - testing of control modes
 - tuning and installation of control loops
- relevant industry standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications and operating instructions
- relevant testing/measuring devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace quality, instructions, policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

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.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to setting up advanced process measuring and control instruments
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>