



Australian Government

Assessment Requirements for MSFGG4006 Operate complex glass processing plant control systems

Release: 1

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Modification History

Release 1 - New unit of competency

Performance Evidence

- Consistently:
 - recognise early warning signs of equipment/processes needing attention or with potential problems
 - determine and analyse the range of possible plant problem causes and the most likely cause
 - take appropriate action to ensure a timely return to full performance
 - recognise obvious problems in related plant areas and make an appropriate contribution to their solution
- Distinguish between causes of problems/alarms/fault indications, such as:
 - instrument failure/malfunction
 - electrical failure/malfunction
 - mechanical failure/malfunction
 - equipment design deficiencies
 - product parameters (temperature, flows, pressure and levels)
 - process control system malfunction
 - power/utility failures
 - software problems
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems
- Avoid backtracking, work flow interruptions or wastage
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

Knowledge Evidence

- Interactions between control loops
- Interactions between plant units within the entire plant
- The architecture and location of the glass process/production equipment
- Specific glass plant process operations
- Interactions between glass plant items/processes
- Glass product specifications and tolerances
- Systems operating parameters
- System integrity limits
- Process control philosophies and strategies
- Emergency shutdown procedures
- Basic science of upstream and downstream glass processes
- Impact of external factors (e.g. variations in weather and feed)
- Complex process drawings (e.g. piping and instrumentation diagrams (P&ID), probability of failure on demand (PFD) and cause and effect)
- Basis of control for glass processing plant/s
- Instrumentation and control systems, including feed forward, feedback and open control
- Instrumentation and control system components (e.g. relevant primary sensing devices, final control elements, and transducers/transmitters)
- Control loops, including P&ID control, set points, controlled variable and indicated variable
- Interaction between multiple control loops, including cascade control
- Impacts of changing controller settings and the limits within which changes can be made
- Effective communication techniques
- Organisational procedures

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
 - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to control systems for glass processing plant and equipment, workplace documentation, procedures and job requirements.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>