



Australian Government

Assessment Requirements for CPCCSG3014 Manufacture gas-charged glass-formed illuminated signs

Release: 1

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Modification History

Release 1.

This version first released with CPC Construction, Plumbing and Services Training Package Version 2.

Revised unit of competency. Replaces superseded equivalent CPCCSI3014A Manufacture gas-charged glass-formed illuminated signage.

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must manufacture two different gas-charged glass-formed illuminated signs as follows:

- one sign must contain a directional symbol, such as an arrow
- one sign must consist of at least three words written in script lettering and sans serif font, using three different colours.

In doing the above work, the person must:

- work, shape and join the glass tubed sections safely and accurately to form the required shapes or letters
- select and use relevant tools and equipment to handle and form the glass
- safely attach required number of electrodes and connect glass tubing
- prepare the glass and pump gas to the glass assembly safely
- bombard, cool and age the glass to specifications
- affix each finished sign to a panel measuring a minimum 400 mm length x 300 mm height.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- statutory and regulatory authority requirements relating to safe handling of materials, including:
 - removal of waste products
 - storage of chemicals and materials
- key features of drawings and specifications of gas-charged glass-formed signs, including dimensions, symbols and abbreviations
- methods and techniques to:
 - shape and form glass

- pump gas into glass
- processes to measure and set out when preparing to manufacture gas-charged illuminated signs, including applying direct and indirect layout methods
- Australian standards appropriate to manufacturing gas-charged illuminated signs, including:
 - AS 2508.2.012 Safe storage and handling; information cards for hazardous materials
 - AS 3100 Approval and test specification – General requirements for electrical equipment
 - AS 3953 Loading guide for dry-power transformers
 - types and characteristics of fonts and lettering styles used in the manufacture of signs
- safety procedures required when working with live flame and gas
- terminology used in sign manufacture
- types and characteristics of gas-charged glass-formed illuminated signs
- types, characteristics and correct handling procedures for materials used in the manufacture of gas-charged glass-formed illuminated signs
- types and uses of electrodes and transformers when manufacturing gas-charged glass-formed illuminated signs
- purpose and application of the following when working with tools and equipment used in the manufacture of gas-charged glass-formed illuminated signs:
 - safety data sheets (SDS)
 - safe work method statements (SWMS).

Assessment Conditions

Suitable assessment of performance requires:

- equipment:
 - glass heaters
 - tongs
- materials:
 - custom wood panel measuring at least 400 mm in length x 300 mm in height
 - electrodes
 - fastenings and fixings used to attach sign components
 - glass tubes
 - neon gas
 - transformers
- contingencies:
 - identify and rectify faults in illuminated signs
- specifications:
 - Australian standards:
 - AS 2508.2.012 Safe storage and handling; information cards for hazardous materials

- AS 3100 Approval and test specification – General requirements for electrical equipment
- AS 3953 Loading guide for dry-power transformers
- SDS for materials used when manufacturing gas-charged illuminated signs
- SWMS
- relationship with client:
 - check and confirm design of glass shapes and job specifications
- timeframe:
 - according to job requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>