



Australian Government

Assessment Requirements for UEEHA0017

Classify areas where a combustible dust hazard may arise

Release: 1

Assessment Requirements for UEEHA0017 Classify areas where a combustible dust hazard may arise

Modification History

Release 1. This is the first release of this unit of competency in the 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:

- determining the combustible characteristics of the material and extent of explosion hazard including:
 - determining dust combustibility in consultation with process specialists and obtaining confirmation from laboratory tests and other sources
 - obtaining relevant material characteristics from process specialists and, where applicable, laboratory tests and other sources
 - identifying dust containment and sources of release, including likely formation of dust layers from process diagrams and plant drawings
 - determining the probability that dust will be released and form an explosive dust atmosphere in an installation from possible causes and the characteristics of release
 - considering the application hierarchy of risk controls to reducing the extent of explosion hazards
- assigning the type and extent of zones including:
 - establishing the sources and grades of release and dust deposits in layering that may occur in the area from collected data and in consultation with process specialists and site personnel
 - attributing area classification zones according to the frequency and duration of the occurrence of explosive dust atmospheres and the extent of each zone
 - determining the extent of each zone in accordance with the relevant standard
 - consulting with plant management to develop strict housekeeping arrangements to negate the hazards posed by the formation of dust layers
- documenting classification and delineation of zones including:
 - documenting the area classification processes and procedures as required by the relevant standards
 - providing classification documentation records for future reference and for incorporation in the verification dossier.

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:

- properties of combustible dusts including:
 - material characteristic (of a given process)
 - dust groups
- dust containment process study including:
 - determining the frequency of dust clouds for:
 - normal operation
 - abnormal operation
 - start-up
 - shut-down
 - documenting results
- sources and characteristics of release including:
 - plant and process design
 - examples of locations that may give rise to a given zone cited in the relevant standard
 - factors affecting:
 - formation of dust atmosphere outside equipment
 - extent of dispersion of dust to a point where dust is not hazardous
 - assigning grades of release
- attributing zones including:
 - frequency and duration of the occurrence of explosive dust atmospheres forming
 - factors affecting the extent of zones
- dust layer hazards including:
 - how dust layers form
 - behaviour of dust layers
 - dust layers as an ignition source
 - negating risk of dust layering
- documentation requirements including:
 - all relevant information and references
 - results material combustibility and process studies
 - marked up drawings data sheets and table
 - justifications for decisions made.

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated 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 other simulations
- relevant and appropriate tools and testing devices and PPE currently used in industry
- the following equipment and artefacts in relation to several different processes:
 - plant specification and design including:
 - plan and elevation drawings
 - details of plant design and operation
 - climatic and topographic information of the site
 - verification dossier for the site
 - process specification including:
 - process line diagram
 - process specification
 - known material data
 - relevant standards and codes.

Links

Companion Volume Implementation Guides are found in VETNet -

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