



Australian Government

MSTGN4013 Manage technical processes

Release: 1

MSTGN4013 Manage technical processes

Modification History

Release 1. Supersedes and is equivalent to LMTGN4013A Manage technical processes

Application

This unit of competency covers the skills and knowledge required to manage the technical processes, particularly in the preparation of chemicals, monitoring production stages and measuring specified process parameters.

This unit of competency applies to managing the technical processes for hide, skin and leather, fibres, yarns or fabrics and textile products, including the handling, preparing, using and storing of chemicals. Judgement may be required in planning and selecting appropriate processes or procedures for self and others.

This unit of competency is applicable to all sectors of the textiles, clothing and footwear (TCF) industry.

Technical processes can relate to processes for tanning or processing hides, skins or leather, manufacturing fibres, yarns or fabrics, and dying finishing or printing textile products.

Work may be conducted in small to large scale enterprises and may involve individual and team activities. Work is performed within defined procedures under direct supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Generic

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Determine job requirements
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|-----|---|
| 1.1 | Follow standard operating procedures (SOPs) |
| 1.2 | Comply with work health and safety (WHS) |

			requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Prepare to manage technical process	2.1	Interpret resources and procedures requirements of technical process
		2.2	Confirm schedules and technical resources with relevant personnel
		2.3	Clarify process and safety requirements, where necessary
		2.4	Allocate roles and responsibilities for work activities
3	Implement technical process	3.1	Monitor technical process and where required provide guidance
		3.2	Monitor process parameters to ensure conformance to requirements
		3.3	Monitor safety associated with the process, including chemical handling
4	Resolve process problems	4.1	Facilitate meetings or discussions to identify methods to solve process problems
		4.2	Use knowledge of process improvement and technical systems to systematically identify and resolve process problems
		4.3	Recommend and document preferred option to resolve the problem
		4.4	Facilitate implementation of the recommended problem resolution option
5	Monitor process improvements	5.1	Monitor process improvements and variations to ensure outcome meets specifications, production schedule and

and variations

workplace requirements

- 5.2 Collate and analyse data to evaluate the effectiveness of process improvements or variations
- 5.3 Record and report outcomes to relevant personnel

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Process parameters include, but are not limited to, one or more of the following:

- speed
- temperature
- pressure
- chemical values
- time
- volume

- quantities
- pH Baume (BE)
- concentration

Chemical processes include, but are not limited to, one or more of the following:

- chemical preservation
- wool removal and skin pickle (wool off)
- soak, scour, bleach, pickle and sytan (wool on)
- chemical preparation
- tannage
- drum processes (bovine and hair off)
- preparation to crust (rewet and dyehouse processing)
- finishing leather and woolskin (coatings)
- dyeing and colouration
- application of finishes
- fabric formation
- textile finishing processes

Work activities include, but are not limited to, one or more of the following:

- work allocation
- process monitoring
- solving process problems
- reviewing and evaluating process
- monitoring safety

WHS practices

WHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and include one or more of the following:

- manual handling techniques
- SOPs
- PPE
- safe materials handling
- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- other WHS practices relevant to the job and enterprise

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTGN4013A Manage technical processes

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTGN4013 Manage technical processes

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Performance Evidence

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

- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- applying relevant standards
- interpreting resources and procedures requirements of technical process, and confirming schedules and technical resources with relevant personnel
- allocating tasks and roles to relevant personnel and matching personnel to tasks and roles
- facilitating problem solving associated with process variations
- analysing process parameters
- monitoring safety, including chemical handling
- monitoring process improvements and variations to ensure outcome meets specifications, production schedule and workplace requirements
- collating and analysing data to evaluate the effectiveness of process improvements or variations
- maintaining accurate records.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- industry and product and technical processes and equipment and resources
- technical processes of relevant sector: for tanning or processing hides, skins or leather; manufacturing fibres, yarns or fabrics; and dying finishing or printing textile products
- technical and specified process parameters
- characteristics of raw materials and their properties
- processing, measurement, matches (dyes and finishes)
- monitoring processes and procedures
- quality standards and manual handling procedures
- work health and safety (WHS) and environmental aspects of relevant processes, including use of chemicals
- workplace procedures and reporting and documentation processes and procedures
- chemical processes relating to production

- WHS practices, including hazard identification and control measures
- safe handling of chemicals
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in managing technical processes, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should 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 reflecting 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.
- 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.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The unit is applicable to all TCF sectors and assessment must ensure it is delivered to suit the industry it is being applied to.

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