



Australian Government

Department of Education, Employment and Workplace Relations

MSACMT451A Mistake proof a production process

Revision Number: 1

MSACMT451A Mistake proof a production process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to make changes which prevent errors and/or backsliding to a pre-improvement level of practice. In the CM environment, this unit would typically be done by a team leader, technical expert of similar person.
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Application of the Unit

Application of the unit	<p>In a typical scenario a person needs to analyse the process that a team is responsible for and determine methods of <i>mistake proofing</i> it (i.e. ensuring it only produces product within an, acceptable range). After improvement activities have been undertaken these improvements need to be sustained.</p> <p>This unit requires the application of skills associated information gathering and analysis. Initiative, enterprise and problem solving are also required to identify mistakes and determine strategies for eliminating them. This unit also requires communication and team building skills to ensure mistake proofing strategies are implemented, and self management and learning skills to continually reflect on and integrate feedback about the effectiveness of strategies.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse process	1.1. Identify sources of variability/non-conformance in the process 1.2. Identify critical control points in process 1.3. Analyse causes of variability/non-conformance
2. Develop preventative techniques/systems	2.1. Liaise with team members and other people to develop mistake proof method of performing operation 2.2. Test and validate mistake proofing
3. Implement permanent fix	3.1. Liaise with relevant people to have systems/procedures changed to implement solution 3.2. Liaise with relevant people to implement the solution 3.3. Liaise with relevant people to ensure the workforce has an appropriate skills set 3.4. Follow through to ensure implementation occurs
4. Monitor implementation	4.1. Critically observe the implementation 4.2. Compare the results of the implementation against the expected outcomes 4.3. Modify solution to improve outcomes 4.4. Ensure procedures reflect change 4.5. Ensure training/assessment reflects change 4.6. Audit change at agreed period/cycle 4.7. Take action on any observed deviation
5. Seek improvements	5.1. Observe changes 5.2. Analyse process again if required to ensure improvements are sustained

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication ability to discuss items with both operators and technical support personnel
- problem solving
- analysis
- team work
- design conceptualisation.

Required knowledge:

- understanding of their process
- factors in the process which may cause variability
- methods of controlling the variability in the process
- mistake proofing methods relevant to the process/product.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

Overview of assessment requirements	<p>The person will be able to analyse their process and implement systems to ensure the process is mistake proof and the operators, work in a predictable way with little or no chance of mistake.</p>
What critical aspects of evidence are required to demonstrate competency in this unit?	<p>Evidence of actions taken to mistake proof the process should be available.</p>
In what context should assessment occur?	<p>Assessment needs to occur in a workplace implementing competitive manufacturing or by using a suitable project.</p>
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be used as a stand alone unit or it may be assessed concurrently with any of:</p> <ul style="list-style-type: none"> • <i>MSACMT250A Monitor process capability</i> • <i>MSACMT450A Undertake process capability improvements</i> • <i>MSACMT650A Determine and improve process capability.</i>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of</p>

EVIDENCE GUIDE	
	the assessment.
What evidence is required for demonstration of consistent performance?	Where evidence is from the application of <i>baka-yoke</i> to continuous improvement, then there should be evidence that it is practiced routinely and from a number of standardisation activities. Where the evidence is from an initial standardisation of a process, or a single, large and complex standardisation/change process the may provide sufficient evidence.
What are the specific resource requirements for this unit?	Access to an organisation using a competitive manufacturing approach.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Mistake proofing

Sometimes known as baka-yoke/poka-yoke, a manufacturing technique of preventing mistakes by designing the manufacturing process, equipment, tools and components/subassemblies etc so that an operation literally cannot be performed incorrectly. An attempt to perform incorrectly, as well as being prevented, is usually met with a warning signal of some sort.

Procedures

Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the operation of the plant. They may be written, verbal, computer based or in some other form.

For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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