



Australian Government

Department of Education, Employment and Workplace Relations

FDFOP2015A Apply principles of statistical process control

Revision Number: 1

FDFOP2015A Apply principles of statistical process control

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to collect statistical information and analyse and interpret data in order to inform work processes.
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Application of the Unit

Application of the unit	This unit has application where some data collection and interpretation is required to inform work practices. This typically includes plotting data on charts, such as run or control charts, and identifying variation according to given limits.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	FDFOP2061A	Use numerical applications in the workplace

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. Collect statistical information	1.1.Data requirements are identified 1.2.Data is collected to meet requirements
2. Analyse and interpret data	2.1.Data is analysed to identify variation 2.2.Trends in data are identified 2.3.Corrective action requirements are determined based on data

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Ability to:

- identify and collect required data
- retrieve/access data, which may require use of computer programs to access and analyse data, and the ability to locate the relevant information or screens to collect and analyse the data
- apply basic statistical analysis techniques to meet work requirements, such as plotting data on charts (e.g. run or control charts) and identify variation according to given limits
- interpret data to identify trends (manually or using a computer program)
- determine when corrective action is required, such as identifying upper and lower control limits (and warning limits where relevant)

Required knowledge

Knowledge of:

- data sampling method, including the nature of the sample on which data is based and the reasons for different sampling requirements that may apply in a given situation
- concept of variation, including the difference between common and special causes of variation and consequent options for reducing variation and remaining within a given range
- the purpose and process of establishing targets and limits
- concept of standard distribution/standard deviation
- methods used to analyse statistical data, including methods to determine the average, median and mean, and what these measures indicate

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, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of ability to:

- identify data for collection and requirements for ensuring accuracy
- interpret data
- document data on charts, graphs or required workplace format
- identify need for corrective action.

Context of and specific resources for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- statistical process control data
- related data collection and analysis systems
- calculator.

Method of assessment

This unit should be assessed together with core units and other units of competency relevant to the function or work role.

Guidance information for assessment

To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

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.

Data collection

Data collection may be based on a sampling regime followed by an operator or collected automatically. Data collection may include:

- collecting samples and taking measurements

Data analysis

Data analysis typically involves:

- use of computer programs but may also be carried out manually

Unit Sector(s)

Unit sector

Operational

Competency field

Competency field

Co-requisite units

Co-requisite units		