



Australian Government

Assessment Requirements for FBPFST5003 Construct a process control chart for a food processing operation

Release: 1

Assessment Requirements for FBPFSST5003 Construct a process control chart for a food processing operation

Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has effectively constructed a process control chart for at least one food processing operation, including:

- applying Poisson and binomial distributions to supplied attribute data
- calculating and interpreting indices of variability
- identifying skewed distributions
- calculating and interpreting indices of significance and variance
- calculating and interpreting indices of probability
- analysing control charts to monitor processes
- applying control tools and data collection techniques to determine process capability
- applying the uses of average and range charts in the food industry
- calculating statistically all relevant parameters for use in preparing both average and range chart
- preparing average and range charts showing all pre-calculated parameters
- interpreting trends and cyclic patterns of average and range charts
- preparing an action plan based on the results of average and range
- describing and calculating measure of central tendency
- identifying the principles of process capability
- calculating all relevant parameters for the determination of process capability statistically
- interpreting process capability value in relation to the overall process
- representing data in graphs, tables, averages and percentagespreparing a report with recommendations regarding the outcomes of the process capability.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- the terms statistic and parameter
- the concept of statistical inference
- principles of variability and variance
- types and causes of variation
- probability principles
- Poisson and binomial distributions
- characteristics of the normal distribution
- the role of statistical quality control
- concepts of process capability, acceptance levels and process improvement
- the relationship between probability and statistical inference
- the concept of variation within processes and recognition of its implications for process design and management
- the scope and purpose of average and range charts in the food industry
- all relevant parameters for use in preparing both average and range chart
- pre-calculations of parameters of average and range charts
- trends and cyclic patterns of average and range charts
- the preparation of an action plan based on the results of average and range
- the definition of process capability
- process capability values.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
 - production process and related equipment, manufacturers' advice and operating procedures
 - methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment
- specifications:
 - tests used to report relevant product/process information and recorded results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>