

625 Apply Failure Models and Effects Analysis (FMEA) in a food environment

SQA Unit Code		H14C 04
Level 3	SCQF Level 6	SCQF Credit value 3

Unit Summary

This unit is about the skills needed to apply failure modes and effects analysis (FMEA) as part of your organisation’s drive to achieve excellence in food and drink manufacture and/or supply operations. This is important to the productivity and success of manufacture, processing and supply of food and drink within the food supply chain. Understanding current operational practice is central to the implementation of change, improvement, new practice, targets and a performance driven culture.

You will need to show preparing for and undertaking the FMEA analysis within your area of responsibility. Co-rodinate and record the information gathered in an appropriate format, and to make judgements about the activity using FEMA principkes. Risk priority numbers (RPN) will need to be calculated as part of the process. You will need to comply with your company policy for improvement and quality assurance procedures, take responsibility for your actions, and refer any issues outside of the limit of your authority to others.

This unit is for you if your role requires you to apply failure modes and effect analysis to support the achieveing excellence objectives in food and drink manufacture or supply. You may be a front line manager or supervisor and/or have responsibilities for all or part of the production/supply process.

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor.

You must be able to:	You need to show:
<p>1. Prepare for analysis</p> <p>This means you:</p> <p>Confirm and agree the defined scope of the analysis</p> <p>Determine the key features of failure modes and effects analysis of activity</p>	<p>Evidence must be work-based, simulation alone is only allowed where shown in <i>bold italics</i></p> <p>Evidence of preparing for analysis</p>

<p>Obtain information, documentation and resources necessary to support the selected improvement technique</p>	
<p>2. Undertake analysis to identify improvement opportunities</p> <p>This means you:</p> <p>Apply techniques effectively to accurately implement the failure modes and effects analysis</p> <p>Analyse and evaluate data to determine and determine risk priority numbers (RPN) and</p>	<p>Evidence of undertaking analysis to identify improvement techniques</p>
<p>3. Report on improvement opportunities</p> <p>This means you:</p> <p>Accurately present findings of analysis</p> <p>Implement improvement opportunities for high RPNs</p> <p>Report on impact of improvement activities</p>	<p>Evidence of reporting on improvement opportunities</p>

<p>You need to know and understand:</p> <p>Evidence of knowledge and understanding should be collected during observation of performance in the workplace. Where it cannot be collected by observing performance, other assessment methods should be used.</p>
<ol style="list-style-type: none"> 1. The health, safety and hygiene requirements of the area in which you are conducting the failure modes and effects analysis 2. The requirements of a failure modes and effects analysis 3. The team required to construct and update the failure modes and effects analysis 4. How and where to use System FMEA, Concept FMEA, Design FMEA and Process FMEA 5. The meaning of failure mode, failure effect and failure cause 6. How to use the rating scale in failure modes and effects analysis projects, to include the severity rating scale, the occurrence rating scale and the detection rating scale 7. How to calculate a risk priority number (RPN) 8. How to use the risk priority numbers 9. Structured risk reduction 10. When to start a failure modes and effects analysis 11. When to update a failure modes and effects analysis 12. The failure modes and effects analysis team

13. The extent of your own authority within the project, and to whom you should report in the event of problems that you cannot resolve

Evidence of performance may employ examples of the following assessment:

- observation
- written and oral questioning;
- evidence from company systems (e.g. Food Safety Management System)
- reviewing the outcomes of work
- checking any records of documents completed
- checking accounts of work that the candidate or others have written