

## 652 Principles of Failure Models and Effects Analysis (FMEA) in a food environment

**SQA Unit Code**

**H166 04**

**Level 3**

**SCQF Level 6**

**SCQF Credit value 2**

### Unit Summary

This unit is about the understanding the principles of how 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 understand how to prepare for and undertake the FMEA analysis within your area of responsibility. Co-ordinate and record the information gathered in an appropriate format, and to make judgements about the activity using FMEA principles. Risk priority numbers (RPN) will need to be calculated as part of the process. You will need to understand how to apply the principles and processes of FMEA and how to determine the key features of FMEA required for the activity under investigation. 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 achieving 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 need to know and understand:

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.

1. How the health, safety and hygiene requirements of a work area can influence a failure modes and effects analysis
2. The main features and benefits of carrying out a failure modes and effects analysis
3. The team needed to construct and update a failure modes and effects analysis
4. How System FMEA, Concept FMEA, Design FMEA and Process FMEA are used
5. The significance of failure mode, failure effect and failure cause to food processing
6. The rating scale used in failure modes and effects analysis projects, to include the severity rating scale, the occurrence rating scale and the detection rating scale

7. Risk priority numbers (RPN), their calculation and how they are applied
8. Risk reduction and the approaches available
9. When to start a failure modes and effects analysis
10. Failure modes and effects analysis up-dating
11. The roles and responsibilities of those involved with a failure modes and effects analysis team
12. Levels of authority linked to problem resolution

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