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## Overview

This standard is about the skills and knowledge needed for you to apply failure modes and effects analysis (FMEA) to support your organisation's drive to improve food and drink operations. This is important in increasing productivity and success of manufacture, processing and supply within the food and drink supply chain. Understanding FMEA is important to an improvement strategy and in a performance driven culture.

You will need to show and understand how to prepare for and carry out a FMEA analysis within your area of responsibility. Co-ordinate and record the information gathered in an appropriate format, and make judgements about the activity using FMEA principles. 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. 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 standard is for you if your role requires you to apply failure modes and effect analysis for improvement in food and drink operations including manufacturing, processing, packing or supply chain activities. You may have responsibilities for aspects of organisational improvement in a team leadership or management role.

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## Performance criteria

### You must be able to:

#### Prepare for analysis

1. confirm and agree the defined scope of the analysis in accordance with the improvement plan
2. determine the key features of failure modes and effects analysis of the activity
3. obtain information, documentation and resources necessary to support the selected improvement technique in accordance with procedures

#### Carry out analysis to identify improvement opportunities

4. apply analysis techniques to implement the failure modes and effects analysis
5. analyse and evaluate data to determine risk priority numbers (RPN) and improvement opportunities associated with high RPNs

#### Report improvement opportunities

6. present findings of analysis to the relevant personnel
7. implement improvement opportunities for high RPNs in accordance with the improvement plan
8. report on the impact of improvement activities in accordance with procedures

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## Knowledge and understanding

### You need to know and understand:

1. the organisation's improvement vision, strategy, objectives and the reasons for implementation of improvement programmes
2. the health, safety and hygiene requirements of the area in which you are conducting the failure modes and effects analysis
3. the requirements of a failure modes and effects analysis
4. the team required to construct and update the failure modes and effects analysis
5. how and where to use System FMEA, Concept FMEA, Design FMEA and Process FMEA
6. the meaning of failure mode, failure effect and failure cause
7. 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
8. how to calculate a risk priority number (RPN)
9. how to use the risk priority numbers
10. structured risk reduction
11. when to start a failure modes and effects analysis
12. when to update a failure modes and effects analysis
13. the failure modes and effects analysis team
14. the extent of your own authority within the improvement project, and to whom you should report in the event of problems that you cannot resolve

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