

## MTMPSR5601B Design and manage the food safety system

Unit descriptor	This unit covers the skills and knowledge required to design and manage food safety programs for a meat industry enterprise including meat processing, smallgoods, retail and food services operations. The unit also covers skills and knowledge for working with customers and consumers on food safety issues.
Employability Skills	The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.
Application of the unit	<p>This unit is appropriate for all managers in a food safety and/or Quality Assurance (QA) role, and for those working in production roles with responsibility for food safety and QA within their job role.</p> <p>Food safety is a critical element of product quality and is a priority for all sectors of the meat processing industry. Food safety is also a community issue and public perceptions of the safety of meat and meat products impact on the viability of meat processing enterprises.</p>

### ELEMENT

Elements describe the essential outcomes of a Unit of Competency.

### PERFORMANCE CRITERIA

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

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1 Establish enterprise meat or <i>food safety system</i> requirements	1.1	Goals, scope and requirements of food safety system are determined, consistent with customer, enterprise and <i>regulatory requirements</i> .
	1.2	Alternative food safety systems are evaluated against enterprise requirements and preferred system is identified.
	1.3	Development of the food safety system is carefully planned, using team and consultative approaches.
	1.4	Resource requirements, including staff training requirements, for effective systems operation and maintenance are identified and obtained.

2	Develop food safety systems	2.1	Food safety responsibilities, obligations and roles are identified and clearly explained to <i>stakeholders</i> .
		2.2	Processes covered by the food safety system are identified and described.
		2.3	Food safety hazards are identified for all processes within the scope of the food safety system.
		2.4	Hazard control measures are identified, developed and validated.
		2.5	Procedures for <i>preventative action</i> are developed.
3	Establish <i>monitoring</i> procedures and <i>corrective actions</i>	3.1	Monitoring procedures are developed and monitoring information is used to inform corrective actions.
		3.2	Corrective actions are developed and implemented to effectively control hazards.
		3.3	Recording and <i>documentation</i> procedures are developed, maintained and secured.
		3.4	Strategies to support the workforce in the routine and consistent application of food safety systems are developed, resourced and implemented.
4	Evaluate food safety system	4.1	Audit procedures are established and audits monitored.
		4.2	Verification procedures and schedules are established and verification information is used in the review of the food safety system.
		4.3	Food safety system is reviewed and updated for changes in Australian Standards, <i>technical information</i> (including verification data) and process information according to established procedures.
		4.4	Food safety systems are prepared for external review and approval by relevant authorities.
		4.5	Performance information is used to measure performance against policies and goals.
5	Communicate food safety outcomes	5.1	Interactions with the public, regulatory authorities and agencies are conducted in a positive, cooperative and open manner.
		5.2	Food safety incidents and non-compliances are reported promptly to relevant authorities.

- 5.3 Customer and consumer feedback is gathered, analysed and included in review of the food safety system.
- 5.4 Food safety system outcomes are documented to promote public confidence in enterprise products and services.
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## REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge required for this unit. Where bold italicised text is used, further information is detailed in the Range Statement.

- Analyse performance information to determine progress and areas for review or improvement.
- Consult with stakeholders to determine the scope of the *food safety systems, procedures and controls* and identify food handling practices, processing techniques and support programs in use.
- Demonstrate detailed knowledge of HACCP principles and techniques and where appropriate to the enterprise, Good Manufacturing Practices.
- Demonstrate detailed knowledge of validation and verification (including audit) purposes and processes.
- Demonstrate substantial product and process knowledge and the microbiological, physical and chemical impacts on the safety of enterprise meat and meat products in the identification of hazards and the assessment and control of food safety risks.
- Determine measures for correcting processes or outcomes outside acceptable limits or support program requirements including procedure to be followed, when corrective action must be implemented, the person responsible for taking corrective action and the information to be recorded.
- Develop and *validate* control measures using objective data, industry guidelines and codes of practice.
- Develop performance standards and criteria for the food safety system.
- Develop *strategies to support the workforce* in the implementation of the food safety system.
- Establish internal *audit processes* and schedules, including developing and leading the audit team.
- Establish procedures to monitor, review and secure record-keeping systems consistent with regulatory requirements.
- Establish *verification* procedures and *schedules* and identify action required if the outcomes of verification indicate that the program requirements have not been met or that the original program was inadequate.
- Establish, monitor and continuously improve food safety support systems consistent with regulatory requirements.
- Evaluate alternative food and/or meat safety systems for suitability for enterprise goals and directions, enterprise operations, enterprise product, cost and customer and regulatory requirements.
- Identify and apply relevant *OH&S*, regulatory and *workplace requirements*.

- Identify **monitoring requirements** and develop monitoring procedures for food safety hazards identified in the enterprise.
- Identify the enterprise's ethical standards and the implications for the food safety system.
- Identify the roles, responsibilities and obligations of the enterprise and individuals in the food safety system.
- Identify workforce training needs and negotiate and schedule training to support system requirements and operation.
- Liaise with suppliers to establish and monitor enterprise food safety and quality requirements for products and processes.
- Maintain currency of knowledge through independent research or professional development.
- Monitor **public health requirements** and concerns and prepare reports for the enterprise, public health authorities, customers and consumers on progress and outcomes of the food safety system.
- Monitor the implementation of preventative action measures, controls and actions to correct non-compliance or non-conformances.
- Outline regulatory requirements for food safety (including HACCP-based programs, support programs, record-keeping, verification and internal/external audits) and explain the implications for enterprise operations.
- Outline scope, auditor role and responsibility, and scheduling requirements for internal and external audit process.
- Outline the legal responsibilities for reporting audit findings (including breaches and non-compliances to enforcement agencies) and for conflicts of interest, confidentiality, rights of appeal and giving evidence in court.
- Prepare accurate reports for senior management detailing compliance breaches/incidents, actions and outcomes and the implications for the enterprise.
- Prepare action plans for the development and review of the food safety system, which include timelines, the establishment, leading and support of the HACCP team.
- Prepare and present food safety system information, procedures, documentation and reports in languages, formats and styles appropriate for the audience and purpose.
- Prepare communication strategies to inform internal and external stakeholders of progress and outcomes of the food safety system.
- Prepare HACCP plans and support documentation including hazard analysis charts and tables, manuals, data analysis reports, corrective action reports and verifications reports, Standard Operating Procedures (SOPs) and work instructions where appropriate for the enterprise system.
- Provide feedback to the workforce or team on food safety performance.
- Take action to improve own work practice as a result of self-evaluation, feedback from others or in response to changed work practices or technology.
- Use appropriate **communication** skills and strategies for informing and confirming the roles, responsibilities and obligations of all participants in the operation of the enterprise.
- Use available technology and **data management systems** to gather, record, manipulate, interpret and report food safety data and information.

## RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments within the meat industry and situations that may affect performance. This includes any 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. Bold italics wording in the Elements and Performance Criteria, and Required Skills and Knowledge, is detailed below.

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***Food safety systems:***

- are written documents required by legislation which specify how businesses will control all food safety hazards that are reasonably expected to occur within a food enterprise
- may be developed by personnel within the enterprise or by external consultants
- may be developed within an enterprise's QA system or as a discrete program
- must provide for the systematic monitoring of controls and actions to correct hazards not under control. Records demonstrating action in relation to or in compliance with the food safety program must be kept.
- may be for export or domestic processing, smallgoods manufacturing, wholesaling, cold stores or retail enterprises
- may be ISO based or non ISO based.

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***Regulatory requirements***  
may include:

- animal welfare
- commercial law including fair trading, trade practices
- consumer law
- corporate law, including registration, licensing, financial reporting
- environmental and waste management
- equal opportunity, anti-discrimination and sexual harassment
- Export Control Act
- industrial awards, agreements
- Australian Standards
- relevant regulations
- state regulations regarding meat processing
- taxation.

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***Stakeholders*** may include:

- company owners, directors, shareholders, financiers
  - competitors
  - management and employees
  - regulatory authorities
  - suppliers, customers, consumers
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	<ul style="list-style-type: none"> <li>• unions and employer associations.</li> </ul>
<b>Preventative action</b> may involve:	<ul style="list-style-type: none"> <li>• revision of materials, processes and/or food handling procedures</li> <li>• revision of workplace practices and documentation such as specifications, SOPs, approved supplier programs, and work instructions.</li> </ul>
<p>A <b>corrective action</b> plan identifies non-conformance, corrective actions, date by which action must be taken and other follow up requirements.</p>	
Food safety <b>documentation</b> includes:	<ul style="list-style-type: none"> <li>• amendment registers</li> <li>• Critical Control Point (CCP) monitoring forms and additional monitoring requirements</li> <li>• CCP work instructions</li> <li>• factory/shop floor plan</li> <li>• HACCP audit table</li> <li>• HACCP team register</li> <li>• hazard analysis table</li> <li>• process flow charts</li> <li>• product description or use</li> <li>• supporting programs and schedules relating to hygiene, cleaning and sanitation procedures, work instructions, approved chemicals, calibration, pest control, training, product identification and recall.</li> </ul>
<p><b>Technical information</b> includes conditions for bacterial food poisoning, including product composition, temperature, time, <math>a_w</math>, pH.</p>	
<b>Food safety systems, procedures and controls</b> apply to:	<ul style="list-style-type: none"> <li>• display, packaging and sale of food, including meat and meat products</li> <li>• equipment design, use and maintenance</li> <li>• handling and disposal of condemned or recalled food (including meat) products</li> <li>• location, construction and servicing of meat premises</li> <li>• processing, further processing and preparation of food including meat and meat products</li> <li>• receipt, storage and transportation of food including meat and meat products.</li> </ul>
<p><b>Validation</b> is the identification, collection and analysis of objective information to confirm that operations (equipment, processes, procedures) are able to provide the required food safety outcomes.</p>	
<b>Strategies to support the workforce</b> in the implementation of the food	<ul style="list-style-type: none"> <li>• clear signage</li> <li>• coaching and mentoring</li> <li>• development and presentation of procedures in plain</li> </ul>

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- safety system may include:
- language and visuals
  - implementation of problem-solving by work teams to develop and monitor food safety procedures
  - initial and refresher structured training programs
  - provision of appropriate work areas and equipment.
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**Audit processes** include planning, establishing controls, developing the team, conducting entry and exit meetings, controlling caucus meetings, issuing corrective action requests, preparing reports, giving feedback and input into the improvement of the system.

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**Verification schedules** may be defined in legislation relevant to the sector. Verification applies to all aspects of the food safety program including documentation, auditing and support programs.

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- OH&S requirements** may include:
- enterprise OH&S policies, procedures and programs
  - hygiene and sanitation requirements
  - OH&S legal requirements
  - Personal Protective Equipment (PPE) which may include:
    - coat and apron
    - ear plugs or muffs
    - eye and facial protection
    - head-wear
    - lifting assistance
    - mesh apron
    - protective boot covers
    - protective hand and arm covering
    - protective head and hair covering
    - uniforms
    - waterproof clothing
    - work, safety or waterproof footwear
  - requirements set out in standards, codes of practice etc.
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- Workplace requirements** may include:
- enterprise ethical standards, values and obligations
  - enterprise-specific procedures, policies and plans
  - SOPs
  - work instructions.
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- Product/process **monitoring** may be:
- microbiological or chemical testing
  - online testing
  - sensory.
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- Monitoring requirements** for food safety hazards include:
- a description of the method or procedure to be followed
  - the frequency and timing
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	<ul style="list-style-type: none"> <li>• the information to be recorded. Procedures to be followed would typically be specified in the form of a SOP or work instruction</li> <li>• the person responsible.</li> </ul>
<p><b>Public health requirements</b> include the impacts of pathogenic bacteria such as:</p>	<ul style="list-style-type: none"> <li>• Clostridium etc</li> <li>• E.coli</li> <li>• Listeria</li> <li>• Salmonella</li> <li>• Yersinia.</li> </ul>
<p><b>Communication</b> may:</p>	<ul style="list-style-type: none"> <li>• be spoken, written, non-verbal and include the use of signs, signals, symbols and pictures</li> <li>• be with colleagues, team members, superiors, customers, clients, external parties from a range of cultural, social and ethnic backgrounds</li> <li>• involve reading and interpreting workplace documents</li> <li>• require the use of negotiation, persuasion and assertiveness skills.</li> </ul>
<p><b>Data management systems</b> may be manual or computerised, cover data collection, data monitoring and data analysis and interpretation and include:</p>	<ul style="list-style-type: none"> <li>• calculators</li> <li>• charting and graphing materials</li> <li>• computer software packages including spreadsheets, statistical analysis packages</li> <li>• computerised equipment</li> <li>• inspection regimes</li> <li>• manual measuring equipment (eg thermometers, pressure gauges, scales)</li> <li>• monitoring sheets, records etc</li> <li>• product quality and safety.</li> </ul>

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## EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

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<p>Overview of assessment</p>	<p>The meat industry has specific and clear requirements for evidence. A minimum of three forms of evidence is required to demonstrate competency in the meat industry. This is specifically designed to provide evidence that covers the demonstration in the workplace of all aspects of competency over time.</p> <p>These requirements are in addition to the requirements for valid, current, authentic and sufficient evidence.</p>
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	<p>Three forms of evidence means three different kinds of evidence – not three pieces of the same kind. In practice it will mean that most of the unit is covered twice. This increases the legitimacy of the evidence.</p> <p>All assessment must be conducted against Australian meat industry standards and regulations.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Competency must be demonstrated through sustained performance over time, at an appropriate level of responsibility and authority under typical operating and production conditions for the enterprise.
Context of and specific resources for assessment	<p>Resources may include:</p> <ul style="list-style-type: none"> <li>• a real work environment</li> <li>• relevant documentation such as: <ul style="list-style-type: none"> <li>— workplace policies and procedures</li> <li>— manufacturer’s instructions and operations manuals</li> <li>— regulatory requirements</li> </ul> </li> <li>• relevant equipment and materials.</li> </ul>
Method of assessment	<p>Recommended methods of assessment are:</p> <ul style="list-style-type: none"> <li>• a third party referee report of sustained performance at appropriate level of authority and responsibility</li> <li>• assignment focusing on understanding and application of principles and theory to workplace operations</li> <li>• workplace projects which focus on company environment and conditions.</li> </ul> <p>Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender, or language backgrounds other than English. Language and literacy demands of the assessment task should not be higher than those of the work role.</p>
Guidance information for assessment	<p>Resource materials available from MINTRAC, telephone 1800 817 462.</p> <p>ARMCANZ, 1998 <i>Microbiological Testing for Process Monitoring in the Meat Industry, Stage 1 Guidelines</i>.</p> <p>Department of Agriculture, Fisheries and Forestry (www.affa.gov.au), Australian Government.</p> <p>Meat and Livestock Australia (www.mla.com.au):</p> <ul style="list-style-type: none"> <li>• <i>A Microbiological Analysis of Meat Inspection Procedures for Fancy Meats</i> (1999) PPI 133</li> <li>• <i>Coagulase Positive Staphylococci on Beef Carcasses</i> (1997) PPI 134</li> <li>• <i>Contamination of Carcasses During Slaughter and Dressing</i> (1998) PPI 135</li> </ul>

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- *Continued Development of Bunging Equipment* (1997) PPI 136
  - *Escherichia coli on Beef Carcasses*
  - *Evaluation of Steam Vacuuming Equipment for Removal of Contamination from Beef Sides* (1996) PPI 138
  - *Guidelines for the safe manufacture of smallgoods* (2003) LPI 401
  - *Microbial Food Safety Risk Assessment Workshop* (2001) PPI 149
  - *Microbiological Testing for the Meat Industry*
  - *Predictive Microbiology for the Meat Industry* (1999) PPI 131
  - *Safe Beef Carcase – Export Chilling Procedures*
  - *Sampling and Test Protocols* (1997) Project MSHE.003
  - *Sheep Dressing Hygiene Guidelines* (1996) PPI 147
  - *The Effectiveness of Knife Sterilisation Between Spear Cuts During Mutton Dressing* (1997) Project MSQS.012
  - *The Microbiology of Australian Meat* (2000) PPI 133.

Mills, CA 1989, *The Quality Audit: A management evaluation tool*, McGraw-Hill Professional, Wisconsin.

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