SITXFSA002:

PARTICIPATE IN SAFE FOOD HANDLING PRACTICES

LEARNING GUIDE

SCA SHORT COURSES AUSTRALIA

Short Courses Australia

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UNIT INTRODUCTION

This resource covers the unit SITXFSA002 - Participate in safe food handling practices.

This unit describes the performance outcomes, skills and knowledge required to handle food safely during the storage, preparation, display, service and disposal of food. It requires the ability to follow predetermined procedures as outlined in a food safety program.

The unit applies to all organisations with permanent or temporary kitchen premises or smaller food preparation areas. This includes restaurants, cafes, clubs, and hotels; tour operators; attractions; function, event, exhibition and conference catering; educational institutions; aged care facilities; correctional centres; hospitals; defence forces; cafeterias, kiosks, canteens and fast food outlets; residential catering; in-flight and other transport catering.

Safe food handling practices are based on an organisation's individual food safety program. The program would normally be based on the hazard analysis and critical control points (HACCP) method, but this unit can apply to other food safety systems.

It applies to food handlers who directly handle food during the course of their daily work activities. This includes cooks, chefs, caterers, kitchen hands and food and beverage attendants.

Food handlers must comply with the requirements contained in the Australia New Zealand Food Standards Code.

In some States and Territories, businesses are required to designate a food safety supervisor who is required to be certified as competent in this unit through a registered training organisation.

Food safety legislative and knowledge requirements may differ across borders. Those developing training to support this unit must consult the relevant state or territory food safety authority to determine any accreditation arrangements for courses, trainers and assessors.

ABOUT THIS RESOURCE

This resource brings together information to develop your knowledge about this unit. The information is designed to reflect the requirements of the unit and uses headings to makes it easier to follow.

Read through this resource to develop your knowledge in preparation for your assessment. You will be required to complete the assessment tools that are included in your program. At the back of the resource are a list of references you may find useful to review.

As a student it is important to extend your learning and to search out text books, internet sites, talk to people at work and read newspaper articles and journals which can provide additional learning material.

Your trainer may include additional information and provide activities. Slide presentations and assessments in class to support your learning.

ABOUT ASSESSMENT

Throughout your training we are committed to your learning by providing a training and assessment framework that ensures the knowledge gained through training is translated into practical on the job improvements.

You are going to be assessed for:

- Your skills and knowledge using written and observation activities that apply to your workplace.
- Your ability to apply your learning.
- Your ability to recognise common principles and actively use these on the job.

You will receive an overall result of Competent or Not Yet Competent for the assessment of this unit. The assessment is a competency based assessment, which has no pass or fail. You are either competent or not yet competent. Not Yet Competent means that you still are in the process of understanding and acquiring the skills and knowledge required to be marked competent. The assessment process is made up of a number of assessment methods. You are required to achieve a satisfactory result in each of these to be deemed competent overall.

All of your assessment and training is provided as a positive learning tool. Your assessor will guide your learning and provide feedback on your responses to the assessment. For valid and reliable assessment of this unit, a range of assessment methods will be used to assess practical skills and knowledge.

Your assessment may be conducted through a combination of the following methods:

- Written activity
- Case study
- Observation
- Questions
- Third party report

The assessment tool for this unit should be completed within the specified time period following the delivery of the unit. If you feel you are not yet ready for assessment, discuss this with your trainer and assessor.

To be successful in this unit you will need to relate your learning to your workplace. You may be required to demonstrate your skills and be observed by your assessor in your workplace environment. Some units provide for a simulated work environment and your trainer and assessor will outline the requirements in these instances.

ELEMENTS AND PERFORMANCE CRITERIA

1. Follow food safety program	1.1 Access and use relevant information from organisational food safety program 1.2 Follow policies and procedures in food safety program 1.3 Control food hazards at critical control points 1.4 Complete food safety monitoring processes and complete documents as required 1.5 Identify and report non-conforming practices 1.6 Take corrective actions within scope of job responsibility for incidents where food hazards are not controlled
2. Store food safely	2.1 Select food storage conditions for specific food type 2.2 Store food in environmental conditions that protect against contamination and maximise freshness, quality and appearance 2.3 Store food at controlled temperatures and ensure that frozen items remain frozen during storage
3. Prepare food safely	3.1 Use cooling and heating processes that support microbiological safety of food 3.2 Monitor food temperature during preparation using required temperature measuring device to achieve microbiological safety 3.3 Ensure safety of food prepared, served and sold to customers
4. Provide safe single use items	4.1 Store, display and provide single use items, so they are protected from damage and contamination 4.2 Follow instructions for items intended for single use
5. Maintain a clean environment	5.1 Clean and sanitise equipment, surfaces, and utensils 5.2 Use appropriate containers and prevent accumulation of garbage and recycled matter 5.3 Identify and report cleaning, sanitising and maintenance requirements 5.4 Dispose of or report chipped, broken or cracked eating, drinking or food handling utensils 5.5 Take measures within scope of responsibility to ensure food handling areas are free from animals and pests and report incidents of animal or pest infestation
6. Dispose of food safely	6.1 Mark and separate from other foodstuffs any food identified for disposal until disposal is complete 6.2 Dispose of food promptly to avoid cross-contamination

PERFORMANCE AND KNOWLEDGE EVIDENCE

This describes the essential knowledge and skills and their level required for this unit.

PERFORMANCE EVIDENCE
Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- Demonstrate use of safe food handling practices in food handling work functions on at least three occasions
- Demonstrate the correct methods of controlling food hazards at each of the following critical control points:
  - Receiving
  - Storing
  - Preparing
  - Processing
  - Displaying and/or serving
  - Packaging
  - Transporting
  - Disposing

KNOWLEDGE EVIDENCE
Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- Key features of commonwealth, state or territory and local food safety compliance requirements as they impact workers at an operational level:
  - Contents of national codes and standards that underpin regulatory requirements
  - Reasons for food safety programs and what they must contain
  - Local government food safety regulations and inspection regimes
  - Consequences of failure to observe food safety policies and procedures
  - Meaning of contaminant, contamination and potentially hazardous foods as defined by the Australia New Zealand Food Standards Code
- Hazard analysis and critical control points (HACCP) or other food safety system principles, procedures and processes as they apply to particular operations and different food types:
  - Critical control points for the specific food production system and the predetermined methods of control, especially time and temperature controls used in the receiving, storing, preparing, processing, displaying, serving, packaging, transporting and disposing of food
  - Main types of safety hazards and contamination

- o Conditions for development of microbiological contamination
- o Environmental conditions and, temperature controls, for storage
- o Temperature danger zone and the two-hour and four-hour rule
- Contents of organisational food safety program, especially procedures, associated requirements, and monitoring documents
- Food safety monitoring techniques:
  - o Bacterial swabs and counts
  - o Checking and recording that food is stored in appropriate timeframes
  - o Chemical tests
  - o Monitoring and recording food temperatures using a temperature measuring device accurate to plus or minus one degree Celsius
  - o Monitoring and recording temperature of cold and hot storage equipment
  - o Visually examining food for quality review
- Methods to ensure the safety of food served and sold to customers:
  - o Packaging control:
    - ▪ Using packaging materials suited to foods
    - ▪ Monitoring of packaging damage
  - o Protective barriers
  - o Temperature control
  - o Supervision of food displays
  - o Utensil control
  - o Providing separate serving utensils for each dish
- Safe food handling practices for the following different food types:
  - o Dairy
  - o Dried goods
  - o Eggs
  - o Frozen goods
  - o Fruit and vegetables
  - o Meat and fish
- Equipment operating procedures, especially how to calibrate, use and clean a temperature probe and how to identify faults
- Choice and application of cleaning, sanitising and pest control equipment and materials
- Cleaning, sanitising and maintenance requirements relevant to food preparation and storage:
  - o Cleaning:
    - ▪ Dirt
    - ▪ Food waste

- Grease
- Pest waste removal
  - o Sanitising:
    - Eating and drinking utensils
    - Food contact surfaces
  - o Maintenance:
    - Recalibrating measurement and temperature controls
    - Minor faults
- High risk customer groups:
  - o Children or babies
  - o Pregnant women
  - o Aged persons
  - o People with immune deficiencies or allergies
  - o Unwell persons

ASSESSMENT CONDITIONS

Skills must be demonstrated in an operational food preparation area. This can be:

- An industry workplace
- A simulated industry environment

Assessment must ensure access to:

- Fixtures:
  - o Commercial grade work benches
  - o Refrigeration unit
  - o Sink
  - o Storage facilities
- Small equipment:
  - o Assorted pots and pans
  - o Containers for hot and cold storage
  - o Crockery
  - o Cutting boards
  - o Food handler gloves
  - o Knives
  - o Packaging materials
  - o Receptacles for presentation and display purposes
  - o Small utensils:
    - Tongs

- ▪ Serving utensils
- ▪ Temperature monitoring device
- Appropriate facilities for handwashing:
  - o Designated hand washing sink
  - o Antiseptic liquid soap
  - o Single use towels
  - o Warm running water
- Food ingredients and ready to eat food items
- Current plain English regulatory documents distributed by the national, state, territory or local government food safety authority
- Australia New Zealand Food Standards Code
- Current organisational food safety programs, policies and procedures used for managing food safety

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

PART 1 – TOPIC 1 - FOOD SAFETY LEGISLATION

Key features of commonwealth, state or territory and local food safety compliance requirements as they impact workers at an operational level:

What is food safety?

Each year there are many thousands of reported cases of foodborne illness. These cases can lead to serious illness and in worst case scenarios, even death. Food safety is what we all do to ensure that all of the food we sell or produce for others is always safe for everyone to consume.

Kitchens are known commonly as 'High-risk establishments.' This means that the people who are being cared for on these premises are at much greater risk of the effects of food-borne illnesses.

In Victoria we have a class system in relation to food premises

A. Class 1
B. Class 2
C. class 3
D. Class 4

Therefore, it is essential that we try to minimise these hazards by ensuring that we carry out, (and continue to carry out!) monitor and supervise safe and hygienic practices whilst preparing, transporting and serving food.

These measures are essential to ensure that food is safe for people to eat, that people feel confident to consume food provided by organisations in which they are placing their trust and that only workplaces which meet these standards are serving food. These workplaces must meet many different legal requirements and ensure that their food is free from contamination. If they do not, the consequences can be so devastating that the business must close.

The products/materials most commonly handled and stored in the food service workplace may include:

- Raw materials
- Ingredients
- Consumables
- Part-processed products
- Finished products

The Food Standards and Regulation in Australia control high-risk foods (Potentially Hazardous foods). In particular:

- All varieties of seafood
- Meats, poultry, game and smallgoods
- Dairy products (Including ice-cream) and products which are egg based

- Soft cheeses and pate

- Many fruits – including fruit salads

- Pre-made salads

- Soups and stocks – including sauces and other 'wet' dishes

- Cooked rice and pasta

The safety of food can be affected and endangered in many different ways. Predominately, however, it is a physical, chemical or a biological effect which puts this food at risk and we will look at these in more detail later. For now, though, it is important to understand that in the same way that health care and aged care facilities are categorised as 'High-risk' so to are some of the food we eat. These include meats, dairy, seafood, some ready-to-eat products, and any item which cannot be washed or treated prior to eating.

You and your colleagues are responsible for food safety in the workplace but this means more than just having a sense of responsibility to your employer, you also have a legal obligation to maintain food safety. You are required to not only perform duties that will monitor food handling but also to take action by informing appropriate personnel and reporting unsafe practices which you may observe in the workplace.

Do this to ensure that your customers feel confident to return to your business.

Handling food according to a specified food safety program or a clear set of policies and procedures (as is the case for some businesses) is essential for any organisation serving food to vulnerable people in the community. Therefore in hospitals, child care centres and the aged care industry, it is imperative that everyone who is working with and handling food understands these programs and how they are used and implemented.

Contents of national codes and standards that underpin regulatory requirements

In Australia we use, nationally, two key sources of information on which to base all of our work:

- The Food Act 1984 (learn more at http://www.health.gov.au)

- The Food Standards Code (learn more at

  http://www.foodtandards.gov.au/Pages/default.aspx

The Food Standard Code gives a detailed list of instructions for implementing, maintaining, improving and reporting non-compliance. There are five essential standards outlined in Chapter 3 of the Australian and New Zealand Food Safety Code (ANZFSA)

There are five essential standards outlined in Chapter 3 of the Australian and New Zealand Food Safety Code (ANZFSA)

- 3.1.1 Interpretation and Application

- 3.2.1 food safety programs

- 3.2.2 Food Safety Practices and General Requirements

- 3.2.3 Food Premises and Equipment

- 3.3.1 Food Safety Programs for Food Service to Vulnerable Persons

Local government food safety regulations and inspection regimes

With the exception of primary producers, all food production businesses need to comply with the Food Standards Code and any legislation, regulations and industry codes of practice in their state, territory, and local council area.

All new food production premises will need to ensure compliance with these standards. Existing businesses, or businesses looking to make alterations to existing food preparation areas should check with their local council to ensure they are compliant with this Standard.

According to the Food Standard Code 3.2.3 - food business premises must:

- Have enough space for their equipment and the work that they do

- Be protected from pests and other contaminants such as dirt and fumes

- Be easy to clean and keep clean

- Have enough clean water available at the right temperature for the work to be done

- Have a disposal system for garbage, sewage and waste water

- Have enough lighting and ventilation

- Have adequate equipment to produce safe and suitable food

These standards set out 'guiding principles' for your food business. The practicality of these will change, depending on the nature of your business. As an example, these will 'look' differently if a kebab caravan was compared to a hospital kitchen:

Kebab caravan	Hospital kitchen
Limited space is available - a converted trailer will be used to accommodate the van. Sufficient space will be needed for the meat rotisserie, salad bar, kebab press, sink, fridge and a small amount of stores	Specifically designed and designated food processing facilities – specified areas for cooking, cleaning, preparation and food storage
In-house pest control	Specifically designed pest control systems, created in conjunction with a professional external provider and in line with the greater hospitals requirement for a pest-free environment
Stainless – steel surfaces, custom designed cabinets to allow for smart storage and cleaning	Stainless-steel surfaces and appliances, appropriate access to hospital-grade cleaning supplies and equipment
Portable water stored in a specified container in the caravan	Hospital-grade filtered water for all cooking applications, electronically controlled to prevent bacterial build up
A garbage bin kept in the caravan, emptied nightly	Specific bins, recycling systems, oil disposal and biohazard waste disposal systems employed throughout the kitchen
Caravan lit by florescent light	Lighting designed to provide adequate luminescence through the whole food preparation area
Caravan specifically designed with smart storage and equipment, to ensure all kebabs are made to the appropriate safety standards.	Hospital food processing areas specifically designed to maximise productivity, food safety, and OH&S safety requirements.

Local councils require food businesses to register for the food safety program, access and apply the local laws, regulations and guidelines and routinely participate in audits. In general, the council will conduct all compliance checks as a regulator of national food legislation and standards.

All audits involve reporting in line with legislation. Ones conducted externally or for the purposes of continued registration involve legal and binding reports made to the Health Department, and permanent records are held by the local council and authority.

Depending on the council that is undertaking the audit you may be invited to contribute to the report before it is made to the Department of Health, especially in regards to planning for corrective actions. However, there is no obligation for the business to be involved at this stage.

An audit report may cover:

- The name, business details and registration of the food business
- The inspection checklist or template used by the auditor and their initial findings
- Evidence of non-conformance or non-compliance
- Results of additional testing, monitoring, interviews or sampling
- Suggestions for improvement or corrective actions required
- Milestones or review dates
- The auditor's opinion about the findings

Local governments may inspect at any time if there is a belief that there is a significant risk to the public and otherwise operates on a schedule. A business will receive accreditation after a successful audit inspection. That accreditation may make their next programme review within 12 months, 3 years or 5 years another similar negotiated timeframe.

Consequences of failure to observe food safety policies and procedures

Failure to complete or assess your own food safety can have serious ramifications. As discussed earlier, the safety of your staff and your customers is paramount. Many local councils have 'snap' kitchen inspections, where an authorised government auditor is permitted to enter your food preparation area and test the premises on a range of safety indicators. Should the auditor find your business to be in breach of the regulations, a number of penalties may be imposed:

- A notice to rectify the breaches within a set period of time
- A fine for failing to comply with safety requirements
- Immediate shutdown of the business, based on safety concerns
- Fines or court action for continual non-compliance with safety regulations

Remember, a food safety audit is designed to prevent issues. Whilst it may uncover issues that need rectifying, prevention is always better than a cure.

In addition to the legal consequences, there are, of course, health consequences. These may include (but are not limited to):

- Choking
- Poisoning

- Allergies or adverse responses

- Illness

- Injury to the mouth, teeth, throat or other areas of the digestive system

High-risk customer groups:

People who are most at risk are commonly found in the health sector and include some of the most vulnerable people like pregnant women, people who are unwell and may have compromised immune systems, babies and the elderly.

Kitchens must cater to the needs of a wide range of individuals. Especially now that we are:

- Learning more about other cultures

- Learning more about health conditions

- Eating out more regularly

- Providing meal services in more locations and environments than ever before

Your current kitchen environment may be very particular in regard to its clientele, but it is useful to know that, on any given day, kitchen staff around the world are preparing individual meals for:

- Adolescents, children, and infants

- Athletes

- Defence forces personnel

- People interested in their nutritional intake

- Elderly people

- In health care or for the ill and injured

- Tourists and vacationers

- People with weight concerns

- People different financial concerns

- People with cultural or religious dietary needs

- And those with physical conditions that require monitoring and tracking of nutrition and energy

An individual's diet can be affected by the culture, life experience, beliefs, personal preference and the food they have available to them. Significant value is placed on food in many cultural and religious settings, relating to how food is gathered, the game is slaughtered, food is prepared and eaten. Indeed, many Latin American and Asian cultures assign 'hot and cold' theories to food and disease. This means that food is assigned a value – hot or cold. This relates to the impact it has on an individual's body, not necessarily on the food's temperature, energy value or the spiciness of the dish.

Various diseases and health states may also be classified as hot or cold, and this affects the kind of foods that can be eaten. We all know the saying "feed a cold and starve a fever". In Asia, the traditional belief is that women lose heat during delivery and so prefer to eat only

"hot" foods during the postpartum period in order to recover quickly and avoid longer-term health problems. Hot/cold classifications may sometimes be extended to medicine, resulting in conflict in a patient's mind where they are required to take "hot" medicine for a "hot" condition. These beliefs vary among individuals as well as from culture to culture. Hence you should not assume that this is the basis of refusal to eat or reluctance to adhere to medication.

Whilst some may consider the 'hot and cold' theory as superstition, the cultural value and expectations assigned to this theory can have profound effects on an individual. In many Asian cultures, it is believed that during childbirth, a woman loses significant heat, so 'hot' foods need to be consumed for the woman to regain heat post birth. Similarly, cultural values associated with mental health and food must not be discounted. For example, some cultures believe that a medical or mental condition needs food to match and combat that condition.

Whilst a person has personal preferences in relation to food, they may also have preferences on how they eat food. It is important to remember that not all cultures will eat with a knife or fork or be comfortable to eat in a community setting. In a health or aged care situation, it is integral to ascertain if a patient is comfortable to eat in a ward or dining hall setting, or if they are comfortable eating with a knife and fork. Some may prefer the privacy of a quiet room, or prefer alternative methods of eating, such as chopsticks or a spoon.

When considering food service in a health or aged care setting, it is integral to consider the following points:

- Ask your patients / clients on their personal preferences in relation to food, including any cultural, health or religious consideration that needs to be considered

- Work with your patients / clients existing medical and health needs to formulate a suitable meal plan for them

- You may need to seek meals or menu items from an outside source to fulfil a specific need. For example, you may need to seek a suitable supplier of kosher or halal food should you have an adherent of the Jewish or Islamic religion

- You will need to be sensitive to any religious fasting or ceremonies – just because a patient refuses food, it is not a slight on the food available, there may be genuine and strongly held beliefs that the patient adheres to

- Where the patient / client is from a non-English speaking background, or there are literacy issues, you may need to gain an interpreter (usually a family member) or verbally discuss a menu option as they may be unfamiliar with reading the options available to them

- You may need to educate the patient / clients friends and family on appropriate food gifts, especially if the patient has a specific health or medical concerns. Whilst you must not appear rude, you need to encourage friends or family to abstain from bringing food or drink (including alcohol) to the patient that may be detrimental to their health or recovery

Unwell persons

As with all individual patients/clients, please check what their requirements are. This is important to ensure that you do not make any assumptions.

There will be situations where you are required to discuss a meal / menu plan with a dietician. You will usually find these situations in the health or aged care area; however, there are some other situations where you may be required to consult with a dietician.

When working with unwell people you should take precautions to ensure the items chosen for cooking are at their optimum, have been stored correctly, treated correctly and have not been in contact with any questionable or unsanitary surfaces.

Special precautions may include:

- Use of single-use utensils, service-ware, and plate-ware
- Protective coverings for food even for internal transport
- Servers wearing disposable gloves to ensure there is no contact with the unwell person

Children or babies

Babies are at risk due to the fact that they have an underdeveloped immune system which is unable to fight off disease and infection. Conversely, an adult has a fully functional immune system which has over the years, built up enough immunity to fight off any germs or bacteria.

Babies will start to develop immunity as they develop, due to daily contact with germs via everyday activities and contact. As soon as they encounter a germ their immune system will fight this which starts the process of developing immunity.

But if this germ or bacteria is too powerful –or has multiplied to a great extent, then it will overwhelm their immune system and cause an infection.

Pregnant women

When pregnant, a woman's immune system is reduced. This places her and her unborn baby at increased risk of contracting the bacteria, viruses, and parasites that cause foodborne illness. Foodborne illnesses can be worse during pregnancy and may lead to miscarriage or premature delivery. Maternal foodborne illness can also lead to death or severe health problems in newborn babies. Some foodborne illnesses, such as Listeria and Toxoplasma gondii, can infect the fetus even if the mother does not feel sick. This is why doctors provide pregnant women with specific guidelines to foods that they should and should not eat.

People with immune deficiencies or allergies

Special diets will be required when you are cooking for people with special dietary requirements. These may include diabetics, those with high blood pressure, allergies, people going into, or coming out of surgery and those with digestive issues will all need to have meals designed in consultation with a dietician.

Working with a dietician for any individual health related menu will produce results that are unique and individual to the needs of the individuals involved or when planning a menu for a group of people this may be more generalised.

A treating practitioner may recommend the following for the following groups:

Dietary requirement	Menu modification
Diabetic	Low sugar / modified sugars
High blood pressure	Low salt
Coeliac	Gluten / wheat free
Pre or Post-operative	Clear fluids / soup diet
Chewing or digestive issues	Modified texture, pureed or blended diet, slow cooked whole foods cut into smaller pieces, avoidance of certain ingredients or textures
Gastric Banding	Fortified foods, modified textures and different food groups
Infection risk	Cooked or washed and sanitised foods only, no mouldy or aged items including dairy or meat items which are labelled as "aged".
Allergies	Use of single-use service-ware, plate-ware, utensils, protective barriers and pots and pans, cleaning and sanitising of all surfaces thoroughly before fresh-cook preparation, preparation of food in separate allergy free areas, storage of allergens away from safe-food.

TOPIC 2 – FOLLOW FOOD SAFETY PROGRAM

Access and use relevant information from organisational food safety program

A food safety program is an internal plan for reducing the contamination risk of all food handling practices, the required control methods that are available and to be used and the instructions for monitoring hazards, risks, and controls.

Your individual food safety plan will be based on:

- Legislation such as the Commonwealth Food Act 1984
- Industry Codes of Practice and Regulations such as Food Standards Code
- Hazards Analysis and Critical Control Points (HACCP) quality assurance systems
- Your local council's food safety compliance program
- The meals, ingredients, food processes, and systems that you use in your workplace

You may already be familiar with aspects of the food safety program because you have studied previous units on food hygiene, you may already be working in a kitchen that operates under a plan and because it underpins Occupational Health and Safety legislation in each state also.

A food safety program can cover many different aspects of your business from the staff and suppliers that you choose to work with through to the presentation of food for service to the end customer. It is important when you are developing your program, to address only the risks and situations that apply to your kitchen.

A food safety program identifies:

- All the records and note taking which must be kept

- Potential hazards and how they can be controlled

- How these controls should be supervised

- What to do when these conditions are not met

Reasons for food safety programs and what they must contain

With the help of the food safety program, within your role, you will strategically and routinely monitor, control and identify new food safety hazards as they occur in the individual business:

- Plans the controls that can be used in different situation and locations in the kitchen including the measures you will use to monitor the controls effectiveness. Example: Keeping detailed records of food which arrive on the premises. This can include recording the company that delivers the food, arrival temperatures and performing a visual check of the state of the food

- Must comply with relevant national, state and industry legislation/regulations

- Not every business has to comply with a food safety program. In this case, your business may choose to comply with a set of standards to reassure its customer base, maintain staff safety and maintain the professional competency of others." And "If your business has not identified food hazards or standards for food safety and there is no legislative requirement to comply then you do not need to follow the food safety standards outlined here and you would use your internal processes and procedures to guide your work instead". These are just indications of how to use the unit but relate to the policies and procedures and legislation that underpin business

To avoid taking unnecessary risks with food safety, this means that you must ensure you:

- Have an awareness of food safety hazards

- Understand the food safety policies and procedures, most are outlined in your workplace food safety program

- Have a firm grasp of the set rules for safe food handling. These rules are all drawn from the Food Standards Code: Standard 3.2.2 Food Safety Practices and General Requirements.

Benefits of a food safety program

- Saves your business money in the long run.
- Avoids you poisoning your customers.
- Food safety standards increase.
- Ensures you are compliant with the law.
- Food quality standards increase.
- Organises your process to produce safe food.
- Organises your staff promoting teamwork and efficiency.
- Due diligence defence in court.

Contents of organisational food safety program, especially procedures, associated requirements, and monitoring documents

By now you are probably wondering what a food safety program looks like. Whilst there is no "one size fits all" approach it is a requirement that you have written documentation to support your plan and a clear guideline for communicating the information to all staff.

The simplest format is, therefore, a manual.

Other acceptable forms of communication, in additional to your written policies, procedures, logs and menus may be:

- A flow chart or workflow plan with annotation

- Verbal instructions, training and regular meetings and coaching

- Diagrams

- Electronic presentations, forms, files, and templates

- An intranet with the ability to blog and post files

Knowing what the finished foods safety plan tool, or tools, will be is important in the early stages of planning your scope. You can then resource and analyse in ways that can be immediately recorded and communicated clearly.

In general, the plan will cover the following:

Subject	Presentation Method
The structure of your business including who is responsible for food safety and who will be a part of your food safety team	• Organisation Chart • Table • Written Profiles • Bullet points • CV's or Individual Biographies • Website • Annotated employee files – soft copy or hard copy
Your suppliers, their contact details, and the products you purchase	• Table – Text or Spreadsheet • Address Book - hard copy • Address Book / Contacts – electronic email system, business management software • Contracts or Memorandum of Understanding
The menu items, the ingredients, processing methods, controls, packaging, end consumer, supply chain and labelling for each	• Annotated copy of the menu • Standard recipes • Copy of Product Labels • Work Flow Chart • Annotated Photographs • Written template • Spreadsheet • Aspects may be verbal
What temperature checks are necessary? On which menu item, when and how? How is it to be recorded? Many businesses use one record for hot food and one for the cold.	• Written Template Log • Table – Text or Spreadsheet • Procedure • Verbal instruction • Signage • Labelling • Checklists
The organisational policies and procedures that may be relevant to your business and its operation. Many businesses write a policy and one or two procedures for each of the standards covered in the Food Safety Standards 3.2.2	• Written Template • Manual • Handbook • Verbal instruction • Signage • Labelling • Checklists

Subject	Presentation Method
Copies of templates, forms, report formats and other record capture documents to be used in your kitchen. If you are not using paper records, it contains instructions on where and how to access the electronic data, how to operate the system to generate reports and how you will monitor it on a daily basis.	• Manual • Handbook • Folder • Digital – software, the web, text or spreadsheet • Intranet – blogs and documents • Documents on Network Drive
Risk identification and management information such as the risk rating, the proactive controls you are using and the incident controls that are implemented.	• Matrix • Included with Menu items • Written report • Table / Spreadsheet • Verbal • Hazard / Incident Reports • Templates • Forms • Signage • Labelling

If you are starting your food safety plan from scratch, it may be appropriate for you to visit the Department of Health website to access their templates and suggestions for getting started - http://www.health.vic.gov.au/foodsafety/bus/templates.htm

New businesses may find that their safety program is limited to the suggestions above with prevention being the primary focus. However, if you have been in business a while you may need extra records including how you have dealt with incidents, what version of your plan you are using, records of training, minutes or a summary of meetings that have been held for food safety and more.

Follow policies and procedures in food safety program

There are two responsibilities that must be covered by workplace practices and processes and which relate to the food safety program:

- **Identifying and controlling bacteria that grow within food**
- **Eliminating the risk of contamination**

In the previous section we identified a range of "best practices" given to us in the food safety program, and in some ways, these should be just good common sense.

So to start with, identification of processes and practices that are non-compliant could begin with:

- Observation of other staff who you witness doing something different
- Reviewing checklists for missing actions or steps
- Missing critical control point reports, logs and labels
- Visual inspection of goods
- Monitoring at critical control points

We will cover critical control points and reporting later in this guide.

At this point, what you need to understand is how practices and processes that are not consistent with the food safety program can lead to illness or injury. The risks are evolving which means that just applying best practice and handling food with care is not enough. Food can become contaminated and compromised during the preparation and cooking processes, in storage and even after it has been cooked.

Contamination means that something foreign is introduced to the food. Food that is contaminated may still have presented the normal bacteria's that food grows naturally, but it also has new risks.

You will control contamination by:

- Participating in hazard identification, control, and corrective processes
- Always following policies, procedures and processes set by the environment you are in – even those not related to food safety
- Accessing, interpreting and applying the food safety program
- Identifying new hazards or problems with procedures and processes that may affect food safety and notifying relevant people

Meaning of contaminant and contamination

When talking about food safety there are two key terms that you will need to understand, **contaminant,** and **contamination.**

A contaminant is any substance that is found in food products that causes it to be no longer fit for consumption. These contaminants are the hazards that cause food safety issues and pose a risk to the health and safety of a person who consumes the food.

Contamination is the process of a food product becoming unsuitable for consumption through being exposed to one of these contaminants.

What is (HACCP) Hazard Analysis Critical Control Point?

Hazard analysis and critical control points (HACCP) or other food safety system principles, procedures and processes as they apply to particular operations and different food types:

HACCP (Hazard Analysis Critical Control Point) is the systematic preventative approach to food safety.

It addresses physical, chemical, and biological hazards as a means of prevention rather than finished product inspection.

This approach has significant benefits to organisations operating within the food supply chain as it enables them to determine key controls over processes and concentrate resources on activities that are critical to ensuring safe food.

Retailers, the food industry and Government in particular are concerned about ensuring that food is produced safely and that the consumer has confidence in the product. This has led to an increase in legislation over time that has focussed upon ensuring safe systems of food production.[1]

What is HACCP?

- H = Hazard
- A = Analysis
- C = Critical
- C = Control
- P = Point

Main types of safety hazards and contamination

It is unlikely that your business will process food in the same way as any other business in Australia.

We wouldn't need individual food safety programs if everyone ordered the same food from the same suppliers and stored it in the same conditions to serve the same meals to the same groups of people. Your business is unique, and your planning can not, therefore, be based on the processes used in other businesses.

Processes are the steps and actions that involved in providing a service or meeting a goal. In a Kitchen environment, the processes are all of the steps involved in transporting goods from manufacturers to your business and then storage, preparation, cookery and then to the end customer. You need to consider all of the processes in your kitchen, regardless of whether you are personally involved, when creating or adjusting your food safety program.

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[1] http://www.haccp-org.eu/project_content/about_haccp_sa_poc.html.

Processes can include:

- Basic receiving, handling and inspection
- Preparation
- Cooking
- Cooling and Freezing
- Processing
- Display
- Packaging
- Serving / plating
- Storage
- Transportation
- Cleaning and sanitation
- Pest control
- Food disposal
- Equipment calibration / service
- Temperature measuring devices
- Unserved or untouched meals

It is likely that in an existing business you may already have policies and procedures that cover each of these processes which will make their identification and use in the food safety program planning easier. It is likely; too, that your policies and procedures will have changed since your last food safety program or that there have been additional processes involving new suppliers, staff and technical teams which mean it is always necessary to perform a review.

Sources of information, in relation to the processes that you use, include:

- Workflow plans
- Preparation lists
- Standard recipes
- Existing policies and procedures
- Observations of Staff
- Staff accounts / interviews
- Contracts and Memorandums of Understanding with Suppliers
- Checklists
- Records, Logs, and Reports

It is important to remember that your Food Safety Program will only need to relate to the processes used in Food Processing and Service environments. It is also important to remember that the information you collect, and the records that you keep may also be hazards too!

Incorrect preparation, completion, analysis and reporting may also lead to contamination, injury, illness and legal consequences.

In the previous chapter, we identified a range of hazards that are likely to occur in the kitchen and their associated risks. Food Standards Code 3.2.1 paragraph 5(b) requires that businesses identify where, in a food handling operation, each hazard identified under paragraph (a) can be controlled and the means of control.

Control is an action, device, training, process, and procedure, administrative or another method that minimises risk.

Consider the following examples:

Contaminate	How to Control
Physical	Regularly complete a site inspection to check for: • Surfaces that have been compromised with cracking, peeling, scratches or dents, breakages or which have become porous • Dust, grit or signs of pest infestation in storage areas, on surfaces, in sinks, around doors and vents • First aid kits and emergency kits only contain products that meet food safety requirements including blue bandages, saline treatments, and non-chemical extinguishers • Logs and communication records have identified areas of concern and appropriate controls have been implemented and are being used OR that trends have been picked up As you prepare your food, on a daily basis, you should also: • Remove jewellery, piercings, hair extensions and anything else loose on your person • Replace non-food-safe bandages with those provided in your workplace • Check wrapping and packaging are intact before removing it and that it remains in contact after removal • All food storage containers have lids or can be completely covered with plastic wrap • Check logs and communications from the previous shifts to identify any concerns, act on any controls and plan your day accordingly • Reputable suppliers
Cross Contamination	• Label utensils and surfaces according to the food they are to be in contact with – i.e. Different chopping boards for vegetables, fruit, fish, dairy, red meat, chicken, pork, cooked food

	• Get into the cleanliness habit and follow your workplace routine • Use your single use paper towel to turn off taps after washing your hands and drying them
Bacterial / Biological	• Avoid the danger zone between 5°C and 60°C • Wash or sanitise your hands • Learn to use your gloves effectively • Check temperatures of food regularly both inside storage and during preparation and cooking – dispose of any goods that have been exposed to the danger zone • Consider preparing stock in batches to minimise a number of goods you have out of storage at any time • Reputable suppliers
Chemical	• Use detergents and sanitisers that are safe for food and always follow the manufacturer's instructions • **Keep all chemicals stored in a safe environment away from food storage areas** • Keep all chemicals clearly labelled • Ensure staff have a clear understanding of how to measure and use the chemicals • Always wear protective clothing when dealing with chemicals and cleaning

The way that you control a hazard will be relevant to your business, the unique situation, the skills of your staff, your access to money, the availability of experts and equipment. There is no one solution that is failsafe for all businesses, and you may need to trial several control options to find the solution that fits you best.

Controls are often broken into a number of categories that make them easier to identify.

- Elimination is the highest level, the most preferred option and involves total elimination of the hazard. This would be extremely difficult in the kitchen as even the air that we breathe can contaminate food
- Substitution is second from the top and involves the substitution of one slightly less hazardous process, a piece of equipment, person or practice
- Mechanical solutions involve engineering or construction but may not involve moving parts, metal or electricity. Some people consider mechanical solutions to be structure, discipline, and specifically applied training. It could also be shielded such as cling wrap, lids, treated plastic, cooking utensils, cutlery, antibacterial soaps, sanitizers, measurements such as temperature, size and visual inspection and other man-made controls

- Administrative controls are hands off controls and involve policies and procedures, general training, signage, workflow charts, lists, reports, records, logs, inspections and audits
- Personal Protective Equipment in the kitchen can include hand sanitisation, appropriate clothing and footwear, aprons, gloves, hats, masks, hairnets and shoe covers. This is the lowest level and the least preferred control mechanism

Because of the complex nature of hazard control and the likely investment for each control that may or may not work, many businesses choose to support programs as either a supplement or replacement for internal controls.

Support programs should be chosen for their reputation, guarantees, availability, compliance with the food safety program and local council approval as opposed to cost alone.

You may also identify controls by:

- Referring to the food safety program – there are some controls, like temperature, that are specified by law
- Speaking with experts, suppliers and external sources of information
- Undertaking research online via reputable websites and government programs

Conditions for development of microbiological contamination

Contamination means that something foreign is introduced to the food. Food that is contaminated may still have normal bacteria's that food grows naturally, but it also has new risks.

Contamination can be broken down into a number of sources:

Contaminant	Hazards	Risk	How to Control
Physical	• The 6 p's • Pests – bugs, mites • Person – bandages, foreign objects, improper training, non-conformance with policies and procedures • Premises – dust, peeling paint, broken tiles • Plant – equipment, metal from blades, surfaces from Teflon • Products – egg shell, skin, feathers • Packaging – plastic wrap	• Injury from choking, cuts, scrapes or lodgment • Sickness from metals, bacteria, chemical elements of physical contaminate	• Regularly complete a site inspection to check for: • Surfaces that have been compromised with cracking, peeling, scratches or dents, breakages or which have become porous • Dust, grit or signs of pest infestation in storage areas, on surfaces, in sinks, around doors and vents • First aid kits and emergency kits only contain products that meet food safety requirements including blue bandages, saline treatments, and non-chemical extinguishers • Logs and communication records have identified areas of concern and appropriate controls have been implemented and are being used OR that trends have been picked up • As you prepare your food daily, you should also: • Remove jewelry, piercings, hair extensions and anything else loose on your person • Replace non-food-safe bandages with those provided in your workplace • Check wrapping and packaging are intact before removing it and that it remains in contact after removal • All food storage containers have lids or can be completely covered with plastic wrap • Check logs and communications from the previous shifts to identify any concerns, act on any controls and plan your day accordingly

Contaminant	Hazards	Risk	How to Control
Cross Contamination	• Chopping boards • Gloves or lack of • Knives / preparation tools • Cleanliness of surfaces including benches, handles, doors • Sinks and taps • Lack of hygiene or understanding of hygiene, improper training, and non-conformance	• Sickness including vomiting, diarrhea, allergies	• Label utensils and surfaces according to the food they are to be in contact with – i.e. Different chopping boards for vegetables, fruit, fish, dairy, red meat, chicken, pork, cooked food • Get into the cleanliness habit and follow your workplace routine • Use your single use paper towel to turn off taps after washing your hands and drying them
Bacterial / Biological	• Personal hygiene • Health • Food handling • Cleanliness • Person serving / eating's hygiene, the utensils they use or how they treat the food	• Sickness including vomiting, diarrhea, allergies	• Avoid the danger zone between 5°C and 60°C • Wash or sanitise your hands • Learn to use your gloves effectively • Check temperatures of food regularly both inside storage and during preparation and cooking – dispose of any goods that have been exposed to the danger zone • Consider preparing stock in batches to minimise a number of goods you have out of storage at any time

Contaminant	Hazards	Risk	How to Control
	• Some pests • Storage • Micro-organisms • Bacteria • Viruses • Moulds • Yeast • Food • Utensils		
Chemical	• Wrong cleaning products • Spillage of cleaning chemicals • Pesticides • Insecticides • Poisons controlling pests • Inappropriate storage containers – like plastics that are not meant to be microwaved	• Injury from burns • Sickness from poisoning	• Use detergents and sanitisers that are safe for food and always follow the manufacturer's instructions. • Keep all chemicals stored in a safe environment away from food storage areas. • Keep all chemicals clearly labelled. • Ensure staff have a clear understanding of how to measure and use the chemicals. • Always wear protective clothing when dealing with chemicals and cleaning

Contaminant	Hazards	Risk	How to Control
	• Chemical reactions like the combination of acid, oxygen, and metal • Naturally occurring chemicals like rhubarb leaves, some fish, green potatoes, some mushrooms, some tree berries • Toxic metals • Allergens • Colours • Flavours • Preservatives		

Temperature danger zone and the two-hour and four-hour rule

One of the most important factors to remember is what is commonly referred to as The Danger Zone – which is the range that occurs between 5°C and 60°C. In this range, bacteria can breed and grow to unsafe levels contaminating the food and any food it comes in contact with. The time that food is in the danger zone includes the time that fresh, and raw ingredients are out of the fridge including during preparation and after cooking before it is served.

The Two-Hour and Four-Hour rule relate to how food is managed, stored, disposed or treated because of its exposure to the danger zone. The rules are:

Length of Exposure	Treatment
Less than 2 hours	Use or store in the refrigerator
More than 2 hours but less than 4 hours	Use or store in the refrigerator
More than 4 hours	Discard product

Control food hazards at critical control points (HACCP)

A good food safety program uses a consistent strategy to control food safety hazards and the risk of injury or illness. It will also include the corrective actions that should be taken to make food safe or to minimise the likelihood of it happening again and the records that should be kept.

We have already identified the type of food hazards and contaminants that can occur. No, you need to know:

- How to monitor food to ensure its safety
- How to use control measures to minimise risk

Corrections and controls are different to each other.

Corrections deal with food that is likely to be contaminated to minimise the risk of food injuring a patron or causing serious illness**.**

Controls, conversely, act to minimise the risk of the food becoming contaminated in the first place.

There are many approaches to identifying and controlling hazards, but the one most readily used in Australia is the HACCP method (Hazard and Critical Control Point). This system addresses the reasons that a problem is occurring at the production level and sets checks and measures at different points in the handling process. It is based on science and root cause versus the traditional safety approach of quality and compliance.

The **seven key principles** or stages of HACCP when used in a hospitality and tourism environment:

Hazard Analysis

You can contribute to hazard analysis by participating in the food safety program and making suggestions for process improvements, reporting practices that are inconsistent with what you know about the food safety program, looking for signs of pests or identifying things that just don't like right.

Critical Control Points

A critical control point could be a date, time, and a handling or preparation stage. For example, when you remove something from the fridge this is the time to check that the food is to date, looks and smells right and there are no obvious signs of contamination.

You can participate in this process by following procedures and routines that and identifying any steps that are necessary but are not currently documented or given clear guidance.

Critical Limits

Examples of critical limits could be temperatures, times, results of testing, quantities or the number of samples. For instance, the 2 hours / 4 hour is a critical limit for raw ingredients in a specific temperature zone.

You can participate in setting critical limits by taking an interest in best practice and any industry-led research or notifications. You can also learn more about the thresholds being used in your individual business including both those that are food safety oriented and those related to general safety.

Critical Control Monitoring

Monitoring may be a visual inspection, use of temperature probes and equipment, calculations, use of timers, logs and other records, sampling, litmus testing and tasting.

You can participate in the monitoring of food safety by following all instructions, procedures and policies, knowing your critical points at which to monitor food safety and making recommendations based on your observations. If you believe something should be monitored, and it is not part of the current procedures – speak up!

Corrective Action

Corrective action includes reheating, increasing temperatures or decreasing temperatures or cooking for longer.

You have a responsibility to identify the need for a corrective action and to use it to make food safe for consumption. If you are not sure what corrective action you should take, and it is not a part of your food safety program you need to contact your supervisor to seek immediate assistance and at the end of the shift document the need for the hazard and its control measures to be included in the plan.

Procedures

You have a responsibility in the workplace to comply with all policies and procedures and to ensure that you know of any changes of these. By attending meetings, reading memos, arriving for work on time and keeping communication lines open in the workplace, you will know if there is new guidelines or methods of ensuring food safety in your work environment. The consequences of failing to follow procedures are not just the risk of injury or illness but repeat offenses may lose you your job.

Record Keeping

Your food safety plan will detail the records that they require you to keep complying with the Food Standards Code and any other regulation or legislation in your state or council area. Your organisation will also have other ways that you can communicate details of problems including email, speaking to your supervisor directly, shift diaries and incident registers.

Complete food safety monitoring processes and complete documents as required

Food safety monitoring techniques:

Monitoring, in this case, means making sure the control methods we have chosen are effective and to enable reasonable corrections or adjustments based on results. If you have already validated your control, you will now know that the control works where it is used effectively and efficiently by the well training staff. But what about in a high turnover, casual-based kitchen with newly qualified staff and competing time demands?

Monitoring, whilst a part of everyone's job, cannot reasonably be expected to occur on a natural basis. Your role is therefore to establish the exact monitoring methods you will use, when, how, where, and who's responsibility it will be to carry it out.

Monitoring techniques used in the food handling area, may include:

Visually examining food for quality review

Visual inspection – involves looking at all aspects of the goods including whether packaging is sealed, boxes are taped, there is no damage to the walls of boxes or food packaging, there is no obvious signs of contamination like mould, the "best by" date has not passed or is not unreasonably close when ordering in bulk, there are no signs of pests.

Monitoring and recording food temperatures using a temperature measuring device accurate to plus or minus one degree Celsius

Testing involves taking timed, equipment, core/internal and ambient temperatures. Testing may also involve time even when food is not subject to temperature control.

You will need to take temperatures at a number of different intervals to ensure that food is always at the right temperature. This includes:

- Whilst in the refrigerator or freezer by taking temperatures at different points of the storage area. A hanging or fixed meter may be used in some storage environments, dials may show temperatures when you have the door closed on a walk-in area
- Checking individual items going into the fridge or freezer using a laser thermometer aimed at the individual item
- Using probes on food that is being prepared or cooked in stages to check that the core temperature is appropriate for thawing, cooling, standing or heating
- Using probes during cooking by pushing these in the centre of the cooking item. If you are using a manual probe, you must make sure the probe hasn't gone all the way through the item and that it is not in contact with the cooking surfaces. If you are using a laser probe, you must follow the items individual instructions

- Using laser readers or dials in bain marie and heat lamp areas to ensure that standing temperature can be maintained within safe limits

Checking and recording that food is stored in appropriate timeframes

Record keeping involves writing down observations, conversations, food that has been disposed of, temperatures or timing, samples that have been taken and the results from the analysis, customer complaints, product recalls, illnesses, products ordered from suppliers, products purchased to make up shortfall and more. It is good practice to record all aspects of transit from the manufacturer through to consumption so that if there is a problem at any time it can be logically traced back to the source.

You will learn more about timeframes and storage as you progress throughout this manual.

Chemical tests

Sampling – involves capturing small amounts of a prepared product to be analysed generally using chemical processes. As access to laboratories already forms part of modern food-service to determine health and nutritional values of items and meals and to identify better or easier methods of preparation or service, you should consider this type of sampling appropriate to protect vulnerable people.

Internal sampling can include PH levels, water activity, and sanitizer solutions. Laboratory tested samples may indicate the presence of allergens, food contaminants, unsafe microbiological pathogen levels, nutrition, and chemical analysis.

Bacterial swabs and counts

Whilst swabs and counts are not a requirement in all environments; they are particularly beneficial where the client group is particularly at risk, food and food processes create vulnerabilities and in periods where cleaning or sanitization is of utmost important like after periods of non-use over holidays. They are also useful in areas which may be subject to sanitisation difficulties such as in fridges and freezers or hand washing areas. Some equipment should be swabbed too.

Swabs are available from local testing laboratories and some food industry suppliers. Simple swabs may require you to test an individual area, put the swab back into a chemical gel in a tube and determine the result. Other swabs require you to take small scrapes or rubs off multiple areas and send it, using specific protocols, to a local lab.

When taking swabs or chemical tests you must:

- Wash your hands using normal hand-washing procedures

- Wear gloves and ensure that your clothing and shoes meet current food standard requirements

- Read the instructions thoroughly. Dry swabs may need to be wetted with sterilised water prior to taking the swab

- Use firm pressure to rub across the area specified in your swab instructions. Some swabs will specify that you swipe in a single, continuous swipe. Others suggest you identify the area and swab back and forth on the diagonal across that area

- Collect scrapings, samples or use other collection methods for chemical or other analysis at the same time
- Transfer the swab to the testing or transport medium
- Label the samples with the current date, the area, the person who took the swab and any other details required by your food safety program, the swab, and the lab
- Undertake testing and analysis using the methods described in the instructions. This may mean transporting to a testing facility, adding testing chemicals or reading instant results against a key

Other definitions or uses of testing include surface analysis to check how clean surfaces are, PH testing after sanitisation, taste testing, smell, sight, feel or crunch testing.

You will need to have regular testing for all your equipment. This includes electrical 'tag and test' maintenance, immediate maintenance in the event of equipment failure and ensuring all equipment undertakes regular services, as per the manufacturer's instructions.

In conjunction with regular system testing and maintenance, you may also need to undertake regular equipment calibration. Calibration is needed for any device that displays a temperature gauge, such as:

- Fridges, freezers, and cold rooms
- Ovens
- Food storage areas
- Food service areas, such as serveries and bains-maries

Calibration involves measuring the readings on temperature gauges against an 'external' reader. For example, a freezer may be set to chill at -4oC, with the temperature gauge displaying -4°C.

To calibrate this, you may use an approved thermometer to gain readings from inside the freezer to ensure it is being cooled at -4°C.

You will need to incorporate regular calibration into your maintenance schedule. Generally, you will be required to calibrate all your equipment every three months. To carry out calibration effectively you will need three pieces of information:

- The calibration instructions including schedule of the item you are checking
- The operating instructions for calibration equipment or the details of the external service chosen to carry out routine maintenance
- Details, records and instructions for calibration from your food safety program

How to calibrate a probe thermometer

Thermometers must be maintained to an accuracy of at least plus or minus (±) 1°C. An external contractor, manufacturer or distributor will be able to calibrate the thermometer at least once a year. You can also calibrate thermometers using the following methods.

1. Ice Water Slurry Method
2. Boiling Water method

How to calibrate check a fixed thermometer

Fixed thermometers (those fixed inside cool rooms, refrigerators and display cabinets) are calibrated against handheld thermometers (which have themselves undergone a recent calibration check).

Keep a container of water in the fridge or cool room for the its error.

Calibration checks should be conducted and documented as per the instructions of your Food Safety Program.

Identify and report non-conforming practices

Even if you are monitoring and controlling food safety hazards yourself or even if you have it many times before accidents can and will happen, mistakes will be made, and steps will be forgotten. It is the reason why there are so many control points and rules to follow in a kitchen.

Whilst getting it right in the first place is paramount to a safe and effective kitchen if something does go wrong your see someone acting in a way that contravenes the food safety plan you have a responsibility to report it immediately. These incidents are called "breaches" because the barriers that you put in place now have gaps allowing contaminants to potentially enter a food item.

Reporting in your organisation will vary depending on the methods selected by the person creating and implementing the food safety program. However, the following can guide you in deciding how to report:

Seriousness	Example	Reporting Method (in order of what to do first)
Someone has or is going to get sick or injured.	e.g. glass has been found in food that has already been served to one or more people	Telephone or speak to your supervisor face-to-face Detailed written report of the incident. Record / Log as per normal procedures
Someone is likely to get sick or injured	e.g. a staff member has just disclosed that they have been experiencing symptoms of rotavirus during food handling	Telephone or speak to your supervisor face-to-face Detailed written report of the incident Record / Log as per normal procedures
There is a chance someone could get sick or injured	e.g. you have applied a corrective measure to a piece of meat that was subject to the danger zone for two hours	Telephone or email supervisor or email if unavailable Record / log as per normal procedures
Staff non-conformance	e.g. a critical control point in the early handling stages has not been monitored or if it was monitored it wasn't recorded. Subsequent controls have	Telephone or email supervisor or email if unavailable Detailed written report of the incident

Take corrective actions within scope of job responsibility for incidents where food hazards are not controlled

If you ascertain that food may have been exposed to risk, you will need to use your organisation's food safety program to identify the best course of action. In some cases, you may be required to dispose of food or to participate in serious action like recalls or temporary shutdowns, but in general, you can apply a range of corrective actions to food to make it safe for consumption.

Corrective action may include:

- Extending cooking time - this can include cooking for longer using the same method, using a different piece of equipment or adjusting heat or volume of food being cooked

- Reprocessing – this can include reheating, stirring or washing

- Refuse to accept deliveries

- Record and dispose of goods that cannot be identified or are now out of date

- Planning and coordinating contracted repairs or pest control services

- Reporting and recording

- Withdrawal or recall of food

You should only use corrective actions where they are detailed in your food safety program, or you have been given instructions by a supervisor to carry them out.

- Lack of time

- Not enough resources

- Problems in other areas of the kitchen

- Time spent in other responsibilities like reporting, meetings, training

- Not knowing your role or responsibilities

- Lack of training or refresher training

Safe food handling practices or processes for the following critical control points.

A food safety program will include information on several key areas (Critical Control Points) depending on the business; here are a few examples of areas covered:

- Receiving
- Storing
- Preparing
- Processing
- Displaying and/or serving
- Packaging
- Transporting
- Disposing

Basic receiving, handling, and inspection of goods:

When receiving goods, you should always inspect them carefully to ensure that the order is correct and for a number of clear food safety essentials.

In a high turnover area, you may find that deliveries are arriving at different times during the day including during peak times, and you may find that the same suppliers arrive at different times and even different days each week. This can increase the risk of food becoming contaminated as it is left for longer periods without being checked or cooled and can increase food spoilage as it is exposed to different heats, stored in packaging materials and subject to different levels of care.

To improve the quality and longevity of fresh food:

- Immediately unpack, check for quality and store cold and frozen goods

- Check appropriate temperatures

- Remove packaging including cardboard and plastic from vegetables and fruits and transfer to cool storage

- Clean up spills, spoiled food and wastage immediately to deter pests

- Using packaging that is appropriate to the food

If your supplier has some flexibility, in a high volume environment, you should negotiate specific delivery days and times to ensure that adequate staff is available to unload, check for quantity and quality and to transfer to storage.

Preparation

When preparing food for cooking and consumption, there are many potential hazards which can contaminate food.

You can minimise contamination at the preparation stage by:

- Preparing different types of food on different surfaces and cleaning those surfaces between ingredients
- Monitoring the time that food is exposed to the Danger Zone (you will learn about this later in this manual)
- Adapting your preparation methods to ensure goods are prepared in batches, over shorter time periods, on a day-to-day basis or using different qualities of ingredients
- Practicing safe hygiene practices including glove use, hand hygiene and wearing appropriate protective clothing

Cooking

Cooking is described as the heat treatment of food to change its state and texture and make it safe to consume. Not every dish on your menu will require heat treatment and not every food item can be heat treated without compromising its quality.

Listeria, the most common type of bacteria, is almost eliminated by heating food, at its core, to 75°C for 2 minutes or longer. The denser the ingredient or, the larger the cut, the longer it takes to change the state of the food and to achieve the required temperature.

Best practice indicates that you should:

- Defrost and let rest in a temperature controlled environment all food prior to cooking
- Use preheated pans, ovens, and grills and only turn goods once during cooking
- Use a thermometer probe or laser to test core temperatures
- When defrosting food:
  - Always do so in a refrigerator. This is a slow process so ensure food is from the freezer removed in advance. (Some microwaves can defrost food using a special setting but using this process makes food more vulnerable, and it must always be used immediately)
  - Always label and date when food was removed from the freezer. It is only suitable to be heated and served within 24 hours
- Store defrosting goods at the bottom of a refrigerator. Raw food and food that is defrosting are prone to dripping, and this can contaminate prepared food

Reheating food

We know that it is important to heat food thoroughly and keep them at a high temperature to ensure they stay safe for consumption. However for many foods – especially those with

creamy ingredients such as creamed soups or sauces – these high temperatures can spoil their taste and texture.

Food can only be reheated once to maintain its integrity and quality. When you are reheating you should do so in the fastest way possible which may mean using different pans, stirring and rapid heat techniques like microwaves.

Cooling and Freezing

When it comes to cooling and freezing food it is important to remember that to reduce the risk of the food spoiling or becoming contaminated by bacteria , the food should be cooled and stored as quickly as possible, reducing the period that food is exposed. Use these rules to help you cool high-risk food for storage.

You must follow the rules for cooling food as provided in the Food Standards Code and support materials.

Food needs to be rapidly cooled using a blast chiller or in the refrigerator to equal to or less than 5°C within the first six hours. To reduce the cooling times of large dishes (e.g.: soups, casseroles, large pieces of meat) try: moving the food to shallow containers (5cm deep) stirring the dish, slicing the food or using a rapid chill process.

The first two hours are the most important with the least margin for error. Within two hours of completing cooking processes, your food must be cooled to 21°C or lower. Refrain from putting hot food straight into the cool room, refrigerator or freezer. You should wait until the food has stopped steaming before putting it in the refrigerator or using an express chill method.

The remaining four hours should then reduce the temperature to the required 5°C or lower. Whilst cooling food is sitting out, to protect them from cross-contamination cover them with cling film.

Freezer Rules to Remember:

- Always 'look, cover, write and check' Look carefully at the food temperature to ensure they are safes, cover them or wrap them for storage, write out a clear label with dates (production and freezing dates) and double check all food
- Freeze in small quantities to speed up the freezing process
- Do not over-fill the freezer – this one is important to ensure that the air circulates and keeps all the food stored at a consistent temperature
- Remember never to freeze food that has already been reheated

Processing

Processing is the act of packaging food for storage, transportation or service. The rules for processing food are as easy as 1,2,3 but very important to ensure that food is kept safe.

Display

This process includes the time that an item is being transported, prepared, directly after cooking and prior to service. In some kitchens, you will need to consider the period of time that food has been on the counter for weighing or measuring or the amount of time the fridge has been open during preparation.

You can monitor temperature using a range of temperature gauges including

- Mounts in fridges, ovens, bain-maries, warmers and cold display
- Thermometers clipped to the inside surface of a saucepan or wall of a walk-in cool room
- Laser thermometers for taking sample temperatures
- Thermo stickers which indicate thawing, exposure over a period of time or current temperature

Different kitchens will have different ways of tracking different items, storage solutions, and processes and you should always refer to your food safety plan to find out how to monitor and control exposure to the danger zone.

When it comes to displaying food, we have 3 clear categories to consider – Self- Service Food, Hot Holding, and Cold Holding. Each of these has their own set of guidelines and considerations

Self-service – This is a difficult category to uphold and therefore strict supervision and packaging of food must be maintained. Why? Because the general public (People who have varied and unknowable levels of food safety training) have access to the food. A business cannot display on their counter food in an open storage container unless it is intended and prepared for self-service. This includes buffets, bain-Marie, salad bars, refrigerated cabinets or frozen food chests (e.g.: Ice-cream chests).

Holding display

When you have food that is waiting to be distributed to patrons or is waiting for other items in order you can use three methods to keep the food at a safe temperature:

- Bain-Marie, which is a heated water system with suspended metal containers for multiple portions of food ready to be served. Food is stored at 63° or higher. A chafing dish is like a Bain-Marie but is used for one type of food only and generally in a display like at a buffet. It may have an oil or tea lamp to keep it warm
- A heat lamp which keeps served foods, and the plates, warmer for longer
- Pie Warmer, which is an electronic cabinet with shelves, like you would see at a bakery that is set to safe temperatures of 75° or higher

Alternatively, you might have cold food that is being displayed in a salad bar, cabinet or perhaps even in a sandwich bar. In each of these displays, food will be stored at 5°C or lower

Your workplace may specify a routine for setting each of these items up, but best practice says they must have been switched on and temperature tested prior to putting food into them.

These systems work best when:

- You minimise the amount of food stored in them
- You rotate or stir food regularly

- You use add provided accessories including lids and spoon rests
- You have one utensil set for each type of food
- You separate new batches from older batches
- You regularly check the temperature and make corrections
- You monitor and control how long each cabinet is open for during operation and account for differences in temperature
- Cover and refrigerate leftovers immediately or discard them according to your workplace practices. In the case of a chaffing dish you should apply to the 2hr/4hr rule

Serve

Both the cooks and the service personnel are required to maintain their hygiene both personally and in regard to cleanliness throughout the service provision.

Staff should be mindful of where they touch or handle cutlery, glasses and plates to avoid contaminating the areas likely to come in contact with the food and the mouth. They should also use all available utensils for servicing include spoons and tongs. They should never touch food, used utensils or food contact surfaces with a bare hand.

Storage

Any number of items from straws and crockery to linen and beverages in a kitchen can have a "best by" date, and all come with suggested storage conditions to maintain their quality, hygiene, and durability.

Your first step in meeting these principles is to check the packaging and any instructions that come with an ingredient, piece of equipment, service item or uniform. You should always follow the individual guidance given for that item in addition to applying the safe storage principles.

You should also consider:

- Where you store items i.e. On shelves, in containers
- How you will organise items – by use, by service time, by recipe
- How you will label them
- How you will track their arrival, dispatch, best by date

- How they will interact with other items in storage i.e. Chemicals next to food items
- Your individual business may already have a range of procedures, checklists, inventory trackers and control measures in place and you should always check these for organisational instructions

According to the Hospitality Institute of Australia, you can maintain the principles of storage using the following checklist:

Food transport

Like in storage, food can become contaminated by our transportation practices. This is because in transport goods are stored for long periods of time from the manufacturer to the supplier perhaps through multiple warehouses, refrigeration or storage systems and in multiple transport vehicles or vessels.

In addition to the storage principles above, you will need to check goods on receipt

- For temperature, signs of damage, and spoilage

- Packaging that is intact and free from damage

- Vehicles which are transporting goods as per their storage instructions (i.e. Refrigerated or out of direct sunlight)

- That all goods have been accounted for and cross checked with a purchase order and the consignment note

- That the delivery has been received as per the agreed or scheduled delivery time to ensure adequate staff is available for processing

All delivery drivers working in the food industry are required to have formal training in regard to food handling and transport of food, and you should consider this before hiring or engaging new or additional transport services.

If any goods fail your inspection you should:

- Immediately notify the driver

- Mark the number of compromised or missing goods on the consignment note

- Let your supervisor know immediately

- Keep clear records of goods that have been returned or disposed of according to your food safety plan

TOPIC 3 – STORE FOOD SAFELY

Select food storage conditions for specific food type

Correctly storing food is not just a legislative requirement; it is also essential in maintaining the quality of your food.

It is essential to know the correct temperatures for storing food.

Food Standards Australia and New Zealand advises there are potentially hazardous foods. These include:

- Raw and cooked meat or foods containing meat, such as casseroles, curries, and lasagne

- Dairy products, for example, milk, custard and dairy-based desserts;

- Seafood (excluding live seafood)

- Processed fruits and vegetables, for example, salads

- Cooked rice and pasta

- Foods containing eggs, beans, nuts or other protein-rich foods, such as quiche and soy products

- Foods that contain these foods, such as sandwiches and rolls

These foods need to be stored below **5°C or over 60°C** to ensure they are kept at the right temperature and have additional safe storage considerations in a commercial kitchen

setting. You should always refer back to the Food Standards Code located at http://www.foodstandards.gov.au to ensure you have the most up to date information and techniques available.

Other factors to consider when storing food include:

- Ensuring raw foods (especially meat) is not stored above cooked food, as a raw food can leak onto cooked food, possibly spreading bacteria
- Ensuring food is transported in approved food transportation vehicles
- Ensuring food is stored in appropriate containers
- Ensuring all heating and cooling apparatus are regularly maintained and measured for correct temperatures
- Keeping food stored at appropriate temperatures is not just about keeping food safe – it is a legislative requirement

Environmental conditions and, temperature controls, for storage

Here is a helpful list of common food used in many kitchens, including storage temperatures and storage tips:

Food	Storage Requirements	Considerations
Dairy	Store below 5°C, even during transportation	Dairy (especially cheese and creams) can take on flavours around them, so keep these wrapped.
Eggs	Keep refrigerated, at or below 5°C. Eggs can lose shelf life if not kept cold.	Can lose moisture if not kept in cartons.
Raw meat, poultry, and seafood	Keep in the coldest part of the fridge. Can be kept between 3 – 5 days chilled.	Wrapped meat can last for up to three days; unwrapped meat may last up to five days but has the risk of drying out
Cooked meat, poultry, and seafood	Store below 5°C Store above raw foods	Refrigerate as soon as possible, to prevent microbial growth Divide large quantities into smaller amounts to assist with cooling Chill uncovered, before wrapping for storage
Dry Goods	Store between <15°C for dry or shelf-life goods	Will keep longer if kept in an unbroken / unsealed package And stored ion a cool dark space which is well ventilated
Fresh fruit and vegetables	Keep in a cool, dry location if refrigeration or chilling is unavailable	Remove any excess 'tree' or leaves from fruit. Ensure fruit and vegetables are handled with care

Monitoring food temperatures, during the food delivery stage, preparation, storage, and distribution is an essential part of your food work schedule.

As part of your ongoing HAACP requirements and ongoing quality control, you should have an established system in place for regular refrigeration maintenance, scheduled food temperature checks, and randomised food temperature checks.

These tests need to be recorded in a systematic and easily retrievable manner.

The most common control methods are related to temperature and time. If you are using an HACCP system temperature and time are the critical limits.

Consider the following guide. Your own business may have different time limits or temperatures depending on the nature of the goods, whether the kitchen is heated or cooled, the available preparation areas and similar:

Monitoring and recording temperature of cold and hot storage equipment (Critical Limits)

Hazard Control	Possible Control Points
Goods arriving from suppliers must be temperature controlled	0°C–5°C for cold goods -18°C to -21°C for frozen goods <15°C for dry or shelf-life goods
Goods being stored will be monitored for temperature	0°C–5°C for cold goods -18°C to -21°C for frozen goods <15°C for dry or shelf-life goods
When preparing food to be cooked or served time will be monitored	18°C for no longer than 30 minutes
Re-thermalisation and cooking of food must be subject to time and temperature	Internal temp of 75°C for at least two minutes or for rare meat like steak or roast meat must be heated for one minute at 68°C
Goods that are been prepared for Cook-Chill or Cook-Freeze	Within two hours from 60°C to 21°C, within a further four hours from 21°C to 5°C.
Bain Marie, Pie Warmers and Heat Lamps, Refrigerated displays and other holds will be temperature controlled	0°C–5°C for cold store At or above 60°C for hot store

Packaging Control – using packaging materials suited to foods

You must use food-safe packaging when preparing food for storage or sale. This means choosing packaging that has been quality-designed to maintain freshness, improve food longevity, minimise contamination and reduce allergy risks.

Most food is traditionally stored in plastic. The benefit of plastic is that it is cheap, durable, disposable and keeps food safe. For takeaways, a harder or thicker plastic is required than food storage in the kitchen – speciality heavy duty wraps and containers are therefore recommended to reduce risk of tears, breaks and oxygen exposure.

However, food packaging may also be a contaminant if used incorrectly. Plastic can perforate, break or fail when it is used on items that are too hot, stored in freezing conditions, not maintained as airtight or are roughly handled. Plastic can melt into food or become invisible within food. Plastic which is not quality-controlled may also be contaminated because storage conditions expose it to pests, chemicals, oxygen and other food and when it begins to break down, in hot or humid weather, it can leach chemicals into the food it holds. Likewise, plastic is not biodegradable which means it has an impact on the environment when disposed.

Fruit, vegetables and legumes that are not prepared and ready for sale should not be stored in airtight plastic. As organic material begins to break down it releases heat, causing airtight packaging to become humid and develop condensation that only rots the matter quicker. Chicken can also develop a funny flavour, smell and texture if stored in plastic for long periods of time.

Protective Barriers

Protective barriers are what you seal, wrap, and store and serve your prepared, cooked and processed foods in, they come in many different types most common are stainless steel and plastic

Alternatives to plastic include:

- Aluminium foil – this is often used for breads, cakes and items that should not be subjected to light interference. The lighter versions of foil are used in packaging for crisps and biscuits, firstly because the light is minimised and secondly, because it can be heat shrunk and thirdly, because it can be treated to repel microorganisms

- Paper bags and paper wrap – this is used to keep things that have been cut together – like sandwiches. Paper absorbs oils and liquids so it will breakdown quicker. However, paper is more convenient for items that are to be consumed quickly, pastries which must not sweat and cakes

- Reusable containers – like coffee cups and water bottles. Some caution should be applied in allowing people to reuse their cups and water bottles. This may include sterilisation by you or another member of staff before refilling or the use of a disclaimer. You must never refill an item that looks or smells unclean

- Polystyrene – you see polystyrene or similar plastic-based material used in trays, supportive packaging around delicate items, fast-food take-away materials and drinking containers. Polystyrene contains small bubbles which provide a buffer for heat. It cannot be subject to direct flames or intense heat, however
- Cardboard – this is often used as branded packaging but can also be useful for items where durability and stability is required but humidity and oil needs to be controlled such as in trays for fish and chips, cups for chunky fries, pizzas or similar

When choosing packaging you should consider the purpose of the packaging

Physical protection	The food enclosed in the package may require protection from, among other things, shock, vibration, compression, temperature, bacteria, etc.
Barrier protection	A barrier from oxygen, water vapor, dust, etc., is often required. Permeation is a critical factor in design. Some packages contain desiccants or oxygen absorbers to help extend shelf life. Modified atmospheres or controlled atmospheres are also maintained in some food packages. Keeping the contents clean, fresh, and safe for the intended shelf life is a primary function.
Containment	Small items are typically grouped together in one package to allow efficient handling. Liquids, powders, and granular materials need containment.
Information transmission	Packages and labels communicate how to use, transport, recycle, or dispose of the package or product. Some types of information are required by governments.
Marketing	The packaging and labels can be used by marketers to encourage potential buyers to purchase the product. Package design has been an important and constantly evolving phenomenon for several decades. Marketing communications and graphic design are applied to the surface of the package and (in many cases) the point of sale display.
Security	Packaging can play an important role in reducing the security risks of shipment. Packages can be made with improved tamper resistance to deter tampering and also can have tamper-evident features to help indicate tampering. Packages can be engineered to help reduce the risks of package pilferage; some package constructions are more resistant to pilferage and some have pilfer indicating seals. Packages may include authentication seals to help indicate that the package and contents are not counterfeit. Packages also can include anti- theft devices, such as dye packs, RFID tags, or electronic article surveillance tags, that can be activated or detected by devices at exit points and require specialized

	tools to deactivate. Using packaging in this way is a means of retail loss prevention.
Convenience	Packages can have features which add convenience in distribution, handling, stacking, display, sale, opening, reclosing, use, and reuse.
Portion control	Single- serving packaging has a precise amount of contents to control usage. Bulk commodities (such as salt) can be divided into packages that are a more suitable size for individual households. It also aids the control of inventory: selling sealed one litre bottles of milk, rather than having people bring their own bottles to fill themselves.

Monitoring of Packaging damage

Packaging may become damaged during use, in transport, when checking items or taking temperatures or because of exposure to environmental conditions.

When food is in storage you must routinely check each shelf and each item for signs of damage or contamination. Remove any likely contaminants like dust or oil or transfer to new packaging. Check for tears, evidence of perforation, and breakage. A perforated item may show condensation, whitening around the hole, culmination of dust and similar.

You should also check packaging:

- Before you use it on goods
- Before the recommended usage period of the item ends – for example, glad wrap is only stable for a few days
- When you are moving items between storage areas or from storage to preparation or service
- When you are displaying items prior to service
- When you are conducting monitoring activities such as temperature control or inspection

TOPIC 4 – PREPARE FOOD SAFELY

Use cooling and heating processes that support microbiological safety of food

Every kitchen will include a range of in-house food processes. The process does not mean the individual cook method like frying, baking or broiling. The process is all the steps packaged into a communication document. You are determining how the "ingredients" that you have chosen (as per the conditions in the input stage) will be brought together prior to plating and service.

These processes may include:

- Cook-chill production for extended storage is appropriate in situations where the functional properties of the food will not be destroyed in the freezing process or for being frozen for an extended period. As that is more processed, it is appropriate to cook-chill for extended periods
- Cook-chill production for a five-day shelf minimises the time between ordering a menu item and its service. Foods that traditionally have been used in cook-chill production can include anything from simple preparation of fruit and vegetables through to chilling higher-use items such as sauces, gravies, and mince
- Cook-Freeze is appropriate when whole meals have been prepared and deep-frozen, ready for immediate defrosting, cooking, and serving. This method is, usually, found in commercial-grade kitchens
- Fresh cook will be your primary method of cooking, especially in a restaurant, bistro, or café setting. Fresh cooking is simply taking raw or prepared foods and cooking them in-house for immediate service

Cooking also increases the flavour, adds texture, makes food safe to eat and in some instances breaks down some of the food making the nutrients easier to access!

What can be tempting, however, is to not cook or heat some food like salad-like vegetables and fruits. This is not safe, however, for individuals with vulnerabilities.

Nutrients and the safety of food can be preserved in food through basic preparation and cooking techniques:

Type of food	Cooking	Avoid
Tomatoes / Eggplant	Whole – Skin On Roasted, grilled Hot pans for short periods	Cooking for long periods Peeling Direct sunlight Non-organic sources
Potato Varieties	Until tender Skin on Roasted, steamed, mashed	Boiling for prolonged periods Peeling Piercing skin prior to cooking
Other Vegetables	Steamed Grilled Roasted Microwaved (no water) Skin on	Scrubbing prolonged washing Peeling Direct sunlight Boiling – except in soup
Meat	Cooked lightly until tender Reaching a temperature of 75 degrees or higher at the centre of the item during cooking Maintaining, where possible, as much blood remaining as tolerable by the eater	Cooking to well-done Chemical or additive tenderisers Chemically or genetically modified sources
Fruit	Whole Skin on when blended / crushed Grilled	Peeling Cooking Juicing using processes that remove parts of the blend
Dairy	Cooled according to the rules for prep to refrigerate or prep to freeze Maintained as cool using the 2 hour and 4-hour rules If serving cold, only measure and prepare just before serving. If heating, do so to 75 degrees or higher for two minutes or longer	Exposure to heat, sunlight or fluctuations in temperature Mixing with items of different temperatures Soft cheese or mouldy cheeses where a customer is in a vulnerable category Boiling items with a high fat content including yoghurt, cream and milk

A risk of cook-chill, for both short and longer-term periods, is bacterial (especially listeria) build up in the food. Cooked food needs to be chilled as soon as possible to prevent the food being in the 'at risk' temperature zone between 5°C and 60°C.

When you are ready to re-thermalise, follow these strategies:

- Always reheat food rapidly to a core temperature of 70°C or higher and hold it at that temperature for a minimum of two minutes

- Rapidly cool chill or freeze products – to 21°C within the first 2 hours and to 5°C or below within the first 4 hours

- Consider transferring large quantities to multiple shallow dishes to aid in the cooling process

- Use a thermometer to check both the ambient temperature of the cooling or heating environment and to probe food to find its core temperature

Another risk of both cook-chill and cook-freeze methods of storing is food can sometimes lose some desirable qualities. There may be a loss in texture, taste, colour, and mouthfeel of the food.

Equipment operating procedures, especially how to calibrate, use and clean a temperature probe and how to identify faults

As part of your food safety program, you will need to ensure all your equipment has regular, systematic and thorough testing. Faulty equipment may lead to:

- Risking staff safety

- Unnecessary delays in food preparation, if equipment fails

- Risking customer safety, if food is not prepared, cooked, stored or transported properly

Ensure safety of food prepared, cooked, stored, processed, served and sold to customers

Methods to ensure the safety of food served and sold to customers:

Once you have successfully prepared and cooked food without contamination, it would be devastating to make a mistake at the final stage!

The food standards code requires all cooking staff to avoid contaminating food, plates, and drinks by touching it with any part of your body or clothing. The general rule is that all direct contact is unnecessary.

It is best practice to always wear gloves to:

- Construct or present food

- Garnish

- Wipe up spills on the plate or neaten up appearance

You might also need to use your personal protective clothing or a wear a uniform to ensure that your clothing, things on your clothing, your hair or any other contaminate on your person does not touch, fall on or come into contact in any other way with the prepared food. These items differ from general street clothes in their quality, their safety features, and they are more resistant to wear and tear stains and pilling.

Ensuring the final product meets all the required quality, safety, customer and organisational standards are one of the most important tasks in the food preparation process.

By the time the food is ready for service or dispatch, a number of quality checks (both formal and informal) should have been completed. A final quality check should be completed to ensure all the elements have come together to produce the food item.

A final check of the food item may include:

- Ensuring the food smells like it should, and there are no obvious off-putting smells or signs food is beyond its useful life. For example, fish that smells very fishy could indicate it is not fresh

- Ensuring the food is at the right temperature for service or dispatch. This can include ensuring food maintains temperature during the preparation and plating of elements, service and when waiting for others at their table to be served
- Ensuring that food for dispatch or delivery elsewhere is packaged in an appropriate container, is covered whilst other items are being prepared, is transported with protective covering or barriers
- Serving utensils, appropriate to the meal item or the type of client, have been provided. Some kitchens prefer to dispatch steak knives, for instance, at the time of service. It also means ensuring utensils are delivered without the interference of others

Once you are satisfied that the food will meet both the customer and organisational expectations, it is ready to serve or dispatch.

Utensil control

Some additional measures you might take include using separate utensils for:

- Transferring food from one dish to another
- Testing temperature
- Testing taste
- Spreading, decorating, rolling or kneading
- Serving different dishes in a single service

Using separate utensils is vital for ensuring that food that is different temperatures or using different ingredients do not get crossed, one food does not contaminate another food, allergens can be controlled and spread of germs of post-service contaminants is limited.

TOPIC 5 – PROVIDE SAFE SINGLE USE ITEMS

Store, display and provide single use items so they are protected from damage and contamination

You will need to make available a number of items that are intended to be single-use and immediate use items. These will range, depending on the nature of your business. They may include:

- Any disposable items

- Packaging or take away materials

- Cutlery and crockery

- Face wipes and serviettes

- Individually packaged items such as beverages, condiments, jams and spreads, salt, pepper and sugar sachets

When choosing items it is important to look for suppliers that comply with food standards by:

- Ensuring items are sanitary on arrival

- Packaged in smaller quantities in a bulk delivery to ensure minimum contact or exposure to the environment during storage

- Items with an appropriate shelf-life including use or packaging consistent with that shelf-life. For example, paper packaging for serviettes that will be used over 6 months would be inappropriate because it would be subject to dampness and temperature fluctuations

When displaying items, you will need to use your food safety program to identify the best handling techniques. As a general rule, you must minimise the risk of contamination by bodily or clothing contact. This can be by:

- Washing your hands using ordinary hand-washing procedures and then wearing gloves

- Using the packaging to peeled away from one edge to guide items, like straws or cutlery, into their storage device

- Minimising the number of items in a storage device and topping these up more regularly, rather than having large numbers of items subject to the environmental and other people's interference

- Disposing of any items that you know may be contaminated because of spills, drops, contact with other people or exposure over a period of time

Follow instructions for items intended for single use

Depending on the nature of single use items, these may come with instructions for use. Instructions could include:

- Length of time to be stored

- Storage conditions

- Temperature and humidity control

- Contamination control

- Usage instructions

- Disposal instructions

It is important to consider single-use items as important to the safety of individuals and the environment as any other item in your kitchen. Particularly because single-use items will often result in higher rates of waste and faster turnover. To ensure items are used and maintained effectively you must:

- Follow all instructions

- Include items in your food safety plan

- Keep track of usage rates including the number of items set out, distributed or disposed of because of contamination

- Determine if single use is viable for both sit-in and take-out customers or whether they should only be promoted to one or the other

- Use biodegradable or recyclable items where possible

You should also consider embedding the items in your normal stock management plan including rotation of stock, use of first-in-first-out principles and disposing of items on or expiry.

TOPIC 6 – MAINTAIN A CLEAN ENVIRONMENT TO MINIMISE HYGIENE RISKS

Throughout this section we will cover all aspects of cleaning and sanitation methods, including ensuring that we can safely dispose of waste, utilising the correct equipment required to clean and take appropriate measure with our scope of responsibility to report any issue associated with the removal of pests and any incidents of pest infestations

- Clean and sanitise equipment, surfaces and utensils
- Identify and report cleaning, sanitising and maintenance requirements
- Use appropriate containers and prevent accumulation of garbage and recycled matter
- Dispose of or report chipped, broken or cracked eating, drinking or food handling utensils
- Take measures within scope of responsibility to ensure food handling areas are free from animals and pests and report incidents of animal or pest infestation

The Food Standards Code is about bringing together everyone's expectations into a minimum benchmark so that everyone can feel safe when eating at a business anywhere in Australia.

The Australia New Zealand food standards code requires that:

> *Food premises must have facilities for the storage of garbage and recyclable matter that:*
> *(a) adequately contain the volume and type of garbage and recyclable matter on the food premises;*
> *(b) enclose the garbage or recyclable matter, if this is necessary to keep pests and animals away from it; and*
> *(c) are designed and constructed so that they may be easily and effectively cleaned.*
> *Source: http://www.foodstandards.gov.au/publications/documents/3_2_3.pdf*

For the purposes of this chapter let's break down the following:

- *Maintaining a clean workplace* means to keep everything in a tidy order, general cleanings like sweeping mopping, dusting, maintenance activities and auditing areas for cleanliness. Every surface in a kitchen needs to be kept clean. Maintenance also relates to equipment and utensils to ensure that they are clean, safe to use, in good repair and properly calibrated – you will learn more about equipment maintenance later in this unit.

- *Sanitising* refers to working with food preparation surfaces that are likely to contaminate food if not maintained. Sanitising is the process of reducing the number of microorganisms that are on a properly cleaned surface to a safe level. A safe level is defined as a 99.99% reduction of the number of microorganisms. It may include steaming, use of hot water over 77°C, a chemical, other heat source or radiation.

Unless the item to be sanitised is effectively cleaned, it is impossible to obtain close contact between the sanitiser and the surface to the sanitized.

In addition to knowing when to dispose of food you will also need to know how to dispose of the food both to comply with your food safety plan, minimise pests and the spread of bacteria, to reduce the impact on the environment and to keep in line with the current Food Standards Code.

Cleaning

Before you can sanitise you will need to remove trace dirt, grime, food waste and pest waste. Consider the following methods:

- Dirt: Wiping with a clean, dry cloth to remove loose, dry and bulk amounts of dirt. Then spaying with a chemical solvent and using a clean, damp cloth to remove any remaining dirt.

- Grease: Removing any bulk amounts and loose grease with a clean, dry cloth or disposable paper wipe. Then use of a solvent over as many treatments as required to remove all traces of grease. Other treatment options include heating the utensil or service to loosen grease, soaking for a time and use of scraping if appropriate to the surface or utensil.

- Food waste: Sweeping, brushing, scraping, grabbing or otherwise removing bulk amounts and transferring these to the bin. This includes scraps that may be located in sinks or equipment. Paper towel or a sponge may be used to remove stubborn or sticky items. Follow up with solvent to remove any stickiness, oiliness or other residue.

- Pest waste removal: First undertake other cleaning processes to remove likely reasons for pests. Then use disposable items to remove bulk waste and to provide first defence with antibacterial solvent. It is vital that you use external sinks and alternative buckets, brooms, sponges, wipes and other treatment equipment to avoid contamination of food surfaces now or in the future. Items that do encounter pest waste should be cleaned and sanitised before use or before they come in contact with other surfaces.

-

Because a kitchen can also have chemical contamination risks it's important to know:

- What cleaning process your business has specified in its food safety program
- What chemicals are safe to use on food contact surfaces – and label these clearly
- The side effects or symptoms of exposure to a chemical being used in your kitchen
- The signs that the wrong product has been used on the wrong surface and any corrective measures
- How the chemicals may react if used one after the after or disposed of in the same place
- How many chemicals should be used or how it should be diluted

- What to do if the chemical encounters your skin or eyes

In addition to your food safety plan, you can learn more about individual treatments by reading and interpreting their labels, accessing and reading the product MSDS (Material Safety Data Sheet) or undertaking basic internet research.

It is likely that your kitchen already has a routine or checklist for cleaning procedures. In smaller kitchens, the routine can be less formal with everyone responsible for completing every item on the checklist. In a restaurant or hospital kitchen, for instance, which is often much larger, you may have individual duties, an individual area or your supervisor may allocate work on a shift by shift basis.

It is your individual responsibility, however, to ensure all utensils, boards, and cooking equipment is transferred to the washing up area in a timely manner and that all of your work area surfaces are thoroughly cleaned and, if they are a food contact surface, sanitised.

Work area or equipment	When to clean	How to clean & chemicals to use	Who will clean
Chopping boards	After use If changing from raw to cooked foods	Hot water washes with detergent Sanitise	Person using
Work surfaces	As needed End of each day	Hot water washes with detergent Sanitise	Person using
Tiled floors	After any spills Daily at the end of each shift	Sweep then mop with hot water and floor cleaner. If rinsing with hose, squeegee to remove excess water	Kitchen hand
Garbage bins (after emptying)	Daily after emptying	Hot water washes with detergent Sanitise	Kitchen hand
Grills	After use	Caustic cleaner	Person using
Bain-marie	End of service	Drain. Rinse interior. Remove all dishes and lids and wash. Clean glass inside and out with glass cleaner	Food service attendant
Refrigerators	After any spills Weekly	Hot water washes with detergent Sanitise	Kitchen hand

Sanitising

Food contact surfaces

To sanitise a surface, you should:

- Wipe it down to remove all visible dirt and grime

- Wipe it down with a detergent

- Rinse it with a clean cloth

- Sanitise it according to your workplace procedures
- Dry it using a clean, unused cloth

Eating and Drinking Utensils

If you are washing up by hand it is always advised that you wear heat resistant gloves as you need to:

- Wash goods in water at 45°C with detergent
- Then rinse in hot water
- Then sanitise in hot water that for 30 seconds at 77°C OR use a chemical sanitiser

If you have a dishwasher available in your commercial kitchen, then it must meet minimum standards to both clean and sanitise kitchen equipment. To be effective they must:

- Wash cycle - 60 seconds at 55°C or higher
- Rinse cycle - 10 seconds at 75°C or higher

Here are some strategies you can use:

- Dishwashers should be called dish sanitisers because you must remove the worst of the food and dirt before placing them inside!
- You need the hottest water you can handle or thermal gloves to protect you, antibacterial cleaning liquid and clear bright water.
- Allow items to steam or air dry
- Never wear the same gloves before loading the dishwasher and after the goods have been washed and wear gloves to avoid contamination of equipment by direct contact.
- Wash all items immediately after use OR soak to prepare them for washing

It is so hard for there to be any certainties when it comes to cleaning practices and procedures because businesses will interpret the law differently.

The Food Standards Code 3.2.2 Food Safety Practices and General Requirements defines the requirements for cleanliness in Division 5: Section 19 – 22

Best Practices

Best practice includes absolute attention to detail in a routine that ensures:

- Floors in service and preparation areas are swept and mopped or vacuumed daily - crumbs, debris and dust all attract pests including mites, fleas, rats, and mice. Floors are also subject to spills which can also bread bacteria and microorganisms. Carpets should also be regularly steam cleaned to kill even more bacteria and remove dirt that

is not easily dislodged with the vacuum. Remember steam can kill more germs than a disinfectant

- Floors in equipment and food storage areas are cleaned and possibly steamed at least weekly. All surfaces are wiped down and sanitised including shelving and the outside of containers. Food that is stored for long periods of time should be rotated, shaken gently and checked for any signs of deterioration or contamination

- Spillages, breakages or accidents are cleaned up as soon as they have occurred and followed up with additional treatment such as vacuuming, mopping or disinfectant

- Porous surfaces like walls, ventilation filters and their hoods and trims are cleaned weekly

- Dust is removed from all surfaces prior to food preparation and in storage areas on a weekly basis

- Once a week use a mild acid solution to food contact surfaces to remove build ups and mineral deposits and then rinse and sanitise as per your normal process. Remember to use gloves when working with caustic cleaners

- Crockery, cutlery, and utensils should be cleaned daily and as quickly as possible after use. Your workplace should have a dishwasher that can sanitise at high heats to make this process quicker. If you are unpacking the dishwasher and notice, anything still has food spots you will need to scrub it and then put it through the washer again. Crockery, cutlery, and utensils in storage also need to be maintained at least weekly through cleaning unless they are stored in sealed, sanitary bags

- Cold store areas and freezers need to be maintained through defrosting, wipe and sanitising for shelves, mopping floors and replacement of air filters if present. You should regularly audit the contents too to ensure that "best by" dates have not passed, or frozen food has been disposed of according to the rooms for freezing. If you are planning to defrost your freezer, you will need to transfer stock to another freezer or do so on a day when the stock is low, and you have several hours. This is also a good time to check seals, drainage and replace lights

- Check that heat lamps and bulbs are in good working order, clean and free of dust. Replace the light globes regularly according to their suggested lifespan and immediately if any kind of light is flashing or significantly dimmed

Cleaning schedule example

Floors	Kitchen & dining room	Sweep or vacuum and wash	Daily
	Dry store	Sweep daily and wash at least	Weekly
	Carpet or mats	Vacuum or sweep daily.	As required
		Steam clean or shampoo the carpets	
Walls and fixtures	Walls	Clean splashes straight away. Clean thoroughly with warm water and detergent	Weekly
	Ceilings	Brush and sweep	Once a month
	Ventilation hoods	Wipe the underside	At least weekly
		Dust top of the hood	Monthly
Food preparation & service areas	Shelves, benches, counters & tables	Clean and sanitise	Daily
		Wipe over with a weak acid solution	Weekly
	Food display cabinets	Wipe over with all-purpose cleaner regularly. Thoroughly clean and sanitise at the	End of each day
Storage areas	Food & utensil store	Clean	Weekly
	Linen & crockery store	Clean	Monthly
	Refrigerators & cool rooms	Clean outside.	Daily
		Clean and sanitise the insides	Weekly
	Freezers	Defrost, clean and sanitise	Monthly or when ice build-up is more than 5mm

Choice and application of cleaning, sanitising, and pest control equipment and materials

Sponges, wash cloths or chux cloths

In the first chapter, we mentioned the use of separate sponges for different surfaces. In practice, this means that you use one sponge for sanitising raw meat preparation areas, one for general contact surfaces, one for bathrooms, one for hygiene facilities and one for non-contact surfaces. The easiest way to keep track of these is to colour code them and at the end of the day to sanitise all of the sponges.

To sanitise a sponge, you can:

- Rinse it in hot water (77°C or higher) and then disinfect it using more sanitiser
- Rinse it and then put it in the microwave for 1minute on high

As different organisations call sponges by different names or use different products altogether you can use this advice for microfiber clothes, scrubbing pads (non-metallic) and any other wiping product.

You should regularly replace your sponges and scouring pads. Some businesses do this more often than others but as a good rule, you should do this as soon as the item cannot be rinsed to be visibly clean.

Other Cleaning Equipment

To maintain your kitchen's cleanliness you may, in addition to sponges, need:

- Mop and bucket
- Rigid broom for concrete areas
- Soft broom for tiled or vinyl areas
- Static dusters
- Vacuum for carpeted areas
- Steam cleaner – with different attachments to clean stoves, sinks, hard to reach places, windows, and carpets
- Scrubbing brushes
- Bottle brushes

It is good practice to have a second 'head' for mops, brooms and dusters so that they can be changed out as soon as they cannot be rinsed to be visibly clean. In addition, you should have a number of scrubbing brushes and bottle brushes available too.

It is good practice to empty the vacuum cleaner on a daily basis – this reduces the amount of dust that the vacuum cleaner can filter back into the air and also disposes of any items likely to cause contamination before they have time to fester or breed.

Your organisation may also have time set aside each month for maintenance of this equipment including testing and tagging electrical items and cleaning processes for sanitising vacuums and the steam cleaner (which can get a build-up).

Use appropriate containers and prevent accumulation of garbage and recycled matter

When disposing of food, best practice is:

- Wearing gloves to handle rubbish that is then disposed of before re-entering the kitchen

- Emptying and disinfecting bins daily or after each shift regardless of whether they are full. You should never let a bin get full or allow it to become overfull either!

- Using liners for all waste and recycle bins – try to use ones that strong, environmentally friendly and that tie up over their contents easily

- Applying what you know about sustainability –sort your rubbish and think twice before disposal!

- Keeping bins out of the preparation and service areas if possible to avoid cross contamination and deter pests.

As bins contain both contaminated and decaying ingredients they can be a hotbed for bacteria and a breeding ground for pests.

The rubbish that gets put into any bin, regardless of its location, can not only be dangerous in regard to food safety but may be a problem for general safety too. It is possible that human waste, sharp objects, and animal products may wind up in any rubbish you handle.

There is a real risk to all handlers of:

- Cuts and scratches
- Needle-stick injuries
- Contamination of existing wounds

All of these things can lead to infection of contagious diseases include Hepatitis B, HIV and Golden Staph.

To minimise the risk of injury or illness you should:

- Let someone know if there is no bin liners, sanitizer or other wastage consumables
- Wear gloves even to close the bag and always wash your hands, and any other part of your body that came in contact, immediately after
- Never put your hand, finger, arm, legs or any other part of your body inside a bin that has rubbish in it and never use bins for anything other than disposing of rubbish
- Wrap sharp objects in the newspaper prior to disposal or if you become aware that someone has not followed this procedure put a layer of paper on top of the visible sharp objects immediately – the weight of goods on top of this will keep the glass in place.
- Use the lid that comes with the bin to keep contents inside when carrying

- Seek help if the bin liner has become stuck – it is safest to have one person hold the ties on the bag and the other person pull on the bin. Alternatively, put a new bag over the top of the closed bag and bin top and then turn on the bin upside down and shake gently to shift the load of the goods and release it.

Dispose of or report chipped, broken or cracked eating, drinking or food handling utensils

If during the course of your work you become aware that eating, drinking or food handling utensils are chipped, broken or cracked you should refer to your food safety program to identify the best method of treatment.

In general, if an item is chipped or broken, the treated and sanitised surface is broken, and the item needs to be disposed of. This is especially true of eating and drinking utensils.

Minor faults

On the other hand, if the item can be sanitised or repaired safely then it should be set aside in an area, outside of the kitchen, and labelled with the problem and any additional action you are taking. Additional action could be:

- Calling a repair person
- Taking the item offsite for repairs at another time
- Making the repairs or completing the sanitisation later (after service)

If the item is too big to remove from the work area you will need to take some extra precautions to report the item as faulty or broken, prevent others from becoming injured as a result of the item by labelling it, shielding it or covering it up and ensuring that food preparation and handling does not occur using the item or around the item.

When reporting problem equipment, you must:

- Be specific about the details of the item
- Be specific about the problem
- Offer ideas about why the problem has occurred
- Recommend actions such as replacing the item or not replacing the item or replacing all items because of repeat instances of the same problems.

Take measures within scope of responsibility to ensure food handling areas are free from animals and pests and report incidents of animal or pest infestation

Pests are a problem for all kitchen environments because of the presence and prevalence of food and food scraps. Effectively kitchens are a giant food source for pests and their families!

The food standards code says that you must plan for the control of pests and taken immediate action to remove pests and their residue from a kitchen environment. They are a

serious problem for all kitchens not only because they contaminate food, but they can destroy food, cause allergies and health problems, affect or distress patrons and result in sanctions. They are also very difficult to get rid of as many of the chemicals that would deter or kill pests are not suitable for a kitchen environment.

Some of the more common pests in the kitchen are:

- Flies
- Bees
- Cockroaches
- Rodents
- Ants
- Domestic animals
- Weevils

Your best defence is to complete regular maintenance including keeping a clean environment, repairing or filling cracks and holes, using screens and door guards, emptying internal bins daily and keeping all ingredients in airtight containers, fridges, and freezers.

If your business chooses to use chemical and powder deterrents you must fully understand the risks of using such chemicals, review the MSDS, ensure that no food, linen or utensils comes in contact with the spray or powder and that you thoroughly clean all surfaces and tools that will have been subject to spray or powder residue.

Pest	Risk	Control
Flies	Typhoid Cholera Dysentery Salmonella Anthrax Tuberculosis Parasitic worms.	Cover food completely Deal with the problem as soon as you see it Use chemical sprays on bills, walls and doors Use a fly screen
Bees	Allergies	Cover food completely Use chemical sprays on bills, walls and doors Seek specialist advice for any obvious hives
Cockroaches	Salmonella Staphylococcus Streptococcus	Repair holes and cracks Keep clean and tidy Use chemical spray or powder during quiet times Remove open water sources Use a qualified pest exterminator
Rodents	Bacterial infections and disease	Repair holes and cracks Keep clean and tidy Put food away securely Empty bins regularly
Ants	Asthma Allergies Food deterioration or contamination	Use chemical spray or powder during quiet times Remove open water sources
Domestic animals	Asthma Allergies Hairs or fibres in food	Close doors and windows Use self-closing screens
Weevils	Asthma Allergies Respiratory conditions	Keep dry foods in airtight containers Check containers regularly and return to them to the supplier if they appear affected Keep dry ingredients between 10 and 15°C

This list is not exhaustive and doesn't cover all of the pests that may find their way into a kitchen environment. Every environment and every kitchen is different and subject to its only types of attractants and therefore its own types of pests. Your food safety program will be your best source of information in a workplace.

For the latest concerns about pests in the kitchen you should subscribe to newsletters from both:

- The Australian New Zealand Food Standards Code http://www.foodstandards.gov.au
- The Department of Health http://www.health.gov.au

Pests can be both a physical and a bacterial contaminate - they are also very ugly when discovered in your food! You have a responsibility to your business to prevent pests coming in but more importantly to report any breaches or signs of pests so that all precautions can be taken to avoid one of these pesky things winding up in the food!

Here are some tell-tale signs you have pests:

Pest	Signs
Common house flies	Brown spots on light surfaces, dead bodies in light sources and near windows, spiders
Cockroaches	Bodies and live roaches behind furniture and appliances, under loose items like boxes and paper and anywhere warm
Rats & mice	Look for droppings and smears on lower walls. You may also notice gnawed food packaging and a strong urine smell.
Weevils	Little black balls in flour or cereal
Silverfish	Holes in linen and clothes

Of course, if you are seeing pests in the kitchen and especially if you notice more than one of a type of pest then it's probable that you have a problem.

Once you have identified the presence of pests you need to act:

- First, remove the source of pest food - this might involve cleaning, vacuuming, disposing of contaminated or infiltrated foods
- Remove as many of the pests as possible i.e. By vacuuming
- Contain the pests i.e. By putting lids back onto containers
- Report the signs of pests to your supervisor
- Make notes about the products affected, any reasons for the infestation you can identify and what actions you have taken

Reporting pest infestations

Depending on your level of responsibility you may then be required to take action to coordinate or fix holes, cracks, torn fly screens, speak with staff about their duties or amend other controls that you have in place.

When you are reporting signs of pest infestation, and any other contaminations in a kitchen environment you should include:

- What you saw or witnessed
- The areas of the food standards code, legislation, regulations or your food safety program that you believe have been breached
- The specific dates, times, and locations of the risk / hazard
- What practices, processes, quality measures or obligations have been affected
- Food that has been or needs to be disposed of recalled, returned or corrected
- Any suggestions for change, improvement, training or control

Identify and report cleaning, sanitising and maintenance requirements

By law, we all have a responsibility for maintaining food safety in the workplace. Serving food to people (especially vulnerable people) that we know or could reasonably come to believe is unsafe, is a criminal offence. In your workplace, there will be a series of steps which you will need to take, applicable to your role in the workplace when reporting what you have to correct any hazards or potential hazards that arise. For the most part, this will be reporting directly to your supervisor, however, submitting paperwork relevant to parts of your food safety program will also be highly likely.

Your business, in their food safety plan, will have identified the exact processes for recording and reporting both compliance and non-compliance. There is also a number of templates and forms available from http://www.health.gov.au to ensure this process is complying with the new minimum standards each time you make a report.

In general, you must record and report to your supervisor:

- When standards are not met
- When you have applied a corrective action such as returning non-compliant goods
- You identify goods that have packaging or dates that are not compliant
- There has been a malfunction, or something is not operating that has affected, could affect or will affect quality of goods
- You witness hygiene, cleanliness or pest issues including if you have inadvertently been the perpetrator
- You become aware that consumable supplies like gloves or sanitizer, have become low

TOPIC 8 – DISPOSE OF FOOD SAFELY

Mark and separate from other foodstuffs any food identified for disposal until disposal is complete

In a commercial or hospital environment where food prepared and cooked according to a strict budget, every caution is taken to avoid scraps. It is common for vegetable soup or meat and vegetable soups and casseroles to be a staple on a menu and which includes ingredients that were not suitable, in regard to presentation quality, to be served in other meals.

To conserve resources and manage a budget whilst keeping customers safe food for disposal usually includes:

- Food that is subject to recall – that is there is a wider problem, or a risk related to contamination
- Food that has been returned – this could include food that contained unsuitable ingredients, had a hidden defect or perhaps the client just didn't like it!
- Food that is not safe or suitable because it has been contaminated is showing signs of contamination or was prepared in a way that was inconsistent with other business standards including presentation
- Food that you think may have become contaminated – even if it is just a suspicion

Your workplace may have specific strategies, quality indicators or processes for identifying food that is to be disposed of in your kitchen. Sometimes the guideline will allow you to use your discretion, but where food is being disposed because of the above four conditions it must be recorded and reported immediately so that further action can be taken, customers can be notified, you can respond in a timely manner to authorities and you can trace any problems over a long period of time.

In addition to these reporting requirements food will need to be separated and held until:

- You have completed the necessary paperwork
- A visual and sometimes pathological inspection has been conducted
- All units and samples of food have been recovered
- The supplier collects recalled food
- The food can be destroyed or disposed of in a way that doesn't make other people sick or cause injury to people who process wastage
- Contamination has been ruled out, and the food can be returned to service

You cannot always separate food by removing it to a storage area or to the rubbish because in some circumstances it needs to be inspected and tested and therefore needs to be kept cold to avoid further spoilage.

You should always:

- Ascertain how the food will be handled using your food safety program

- Remove the food to a designated section of your fridge or storage

- Cover, wrap or otherwise control the food

- Label the food with the time, date, reason for separation and any other information your employer has asked to be recorded in the food safety plan

- Notify your supervisor immediately

- Keep a log of the food and why it has been separated

Dispose of food promptly to avoid cross-contamination

Without a doubt, it is integral to discard any out of date, spoiled or questionable food. This activity, however, should not be on an ad-hoc basis.

As part of your ongoing inventory and stock control, you should be aware of exactly what stock you have available at all time, including when the stock was purchased, when the stock has to be used by and where the stock has been stored.

There are a number of ways you can ensure all food gets used before the use-by date:

- Only purchasing the required amount of food. Whilst purchasing in bulk may sound like an attractive option; you need to be wary that you do not purchase surplus to your needs and have it go to waste

- Always clearly label food, especially where you have required to move it from its original packaging into your own. By having a clear identifying label, indicating what the food is, when it was received and when it needs to be used by is essential

- Rotating stock. Instead of piling new stock on top of old, it is essential that you 'rotate' stock. That is, bring the older stock to the front of the pile, ensuring it gets used before the newer stock. Stock rotation ensures that food is being used within the correct timeframes and old stock is not left to spoil

- Undertake regular stock audits. By checking all food items in your stores on a regular basis, you should be aware of what stock might be coming out of date. This may allow you to use it earlier, order new stock and prepare to discard the old stock.

Food labelling

Food labelling is an essential requirement of food storage and an integral part of ensuring the quality and integrity of the food preparation process.

Legislative requirements for food labelling can be found from Food Standards Australia and New Zealand.

The Food Standards Australia and New Zealand website is an excellent resource for further reading in relation to food labelling.

Labelling	Description	Considerations
Overseas labelling	Country of origin needs to be listed on all food labels	Packaged food must carry a statement identifying either: - the country where the food was made, produced or grown; or - the country where the food was manufactured or packaged and that the food is a mix of ingredients imported into that country or a mix of local and imported ingredients. Unpackaged food must have a country of origins labelled. This applies to unpackaged fresh and processed fruit, vegetables, nuts, spices, herbs, legumes, seeds, fish (including shellfish), and meat (pork, beef, sheep and chicken).
Fish labelling	No set standards for fish labelling	Many fishmongers / retailers will include country of origins for fish stocks Whilst a product may claim to be a particular type of fish, there are no requirements to specify what part of fish is included. There may also be other types of fish inadvertently included in a processed fish product
Food allergies and intolerance labelling	No legislative requirements to label allergens	Many food processing organisations and food service venues will specify allergen information. FSANZ is reviewing options for the labelling of food allergens.
Ingredient list and percentage labelling	All ingredients to be listed in packaged food according to weight, in descending order	Foods may specify a percentage (%0) of food in a product, for example, fruit juice may advertise the product contains 30% real fruit juice
Nutrition and health claims	Standards have recently been introduced to regulate health and nutrition claims. Health and nutrition claims are measured against the Nutrition, Health, and Related Claims Standard	This is enforced by state-based primary industry departments FSANZ recommends you seek legal advice before proceeding with making a health or nutrition claim.
Truth on labels	False or misleading product claims may be punishable by law	Ensure all food claims are fact-based Seek legal advice if you believe a food claim or label may be contestable or controversial.
Warnings and advisory statements	Foods that pose a health risk MUST be labelled accordingly	Examples, where a food advisory is to be included, is if the food contains caffeine, artificial sweeteners, Guarani, or plant-based steroids.

As part of your food workflow schedules and quality checks, you need to ensure these standards are adhered to at all times.

Sustainability

Your business spends a lot of money to have the right quantities of goods to service the number of customers you are likely to serve in a period. If you have a menu that never changes the calculations for this are very straightforward. But if your menu changes regularly or there are lots of options with endless combinations then you may have more risk of food passing its "Best by" date.

Your chef and/or supervisor will be responsible for reducing, reusing, recycling, recovering or wasting ingredients and will follow the hierarchy of waste to identify the options for each of these.

You can have an impact on the sustainability of your kitchen by:

- Only handling the ingredients and quantities of ingredients that you need for a recipe or meal
- Conserving the amount of plastic wrap, tin foil or baking paper you need ensuring you measure twice and cut once!
- Keep the fridge, freezer, cool room, pie warmer, oven and other heating and cooling appliance doors closed for as much of the preparation and service periods as possible. Every time you open the door, the appliance needs to make adjustments using more energy to compensate the escaped air
- Use dishwashers effectively by removing visible dirt from crockery, cutlery, pots and pans prior to use and ensuring that it is full every time you turn it on
- Really using the recycle bin ensuring that every piece of paper, PET plastic, aluminium and foam is put into these facilities
- Preventing contamination by following safe handling and hygiene procedures always
- Knowing your facilities and options – many kitchens have a provision in their food safety plan for separation of green matter from general waste to ensure it is used for composting not landfill.

Department of Agriculture, Water and the Environment has produced a set of signs to label collection bins for the collection of waste from health care facilities.

If you see a practice that is not consistent with sustainability or if you believe your kitchen could be doing more, then speak up! Once voice in every kitchen can be all it takes to make a difference so that we and our future generations have a safe and healthy environment to live in too.
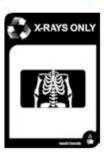
Waste and recycling signage

These documents are available on the following websites:

www.sustainability.vic.gov.au

www.dhs.vic.gov.au/environment/waste

Wash hands at appropriate times and follow hand washing procedures consistently

Correct hand washing techniques are one of the simplest ways of preventing contamination. Unfortunately, it often gets overlooked.

It may seem a simple task, but there is more to it than people realise.

When washing hands there is a procedure that will ensure you have washed all bacteria away:

- Wet hands with warm water

- Use enough soap to provide a generous lather

- Work the lather between your fingers and around the nails making sure every area of the hand is properly lathered and scrubbed

- Rinsing hands with warm water, wash from the tips of your fingers down to the wrist, this allows the fingers to be as clean as possible. This should be done for 30 seconds. (singing Happy Birthday 3 times is a good gauge for 30 seconds)

- Dry hands well using disposable paper towel or air dryer

When should you wash your hands?

- Before commencing or recommencing work with food

- After smoking, coughing, sneezing, or blowing the nose

- After touching rubbish

- After going to the toilet

- After eating and drinking

- After touching any part of your body

Wash hands using appropriate facilities

Appropriate hand washing facilities must be designed, constructed and located in order to:

- Minimise the risk of food contamination

- Allow for easy and effective cleaning

- Allow for easy and thorough cleaning of adjacent areas

- Ensure that they don't provide harbourage for unwanted pests

Taps should have water flow sensors, soap dispensers should be located close to the taps, and disposable paper towels or hand dryers should be readily accessible.

Along with using the correct hand washing technique, it is important that you are using the appropriate facilities.

Appropriate hand washing facilities must be designed, constructed, and located so that:

- There is no likelihood that they will cause food contamination

- They can be easily and effectively cleaned

- The adjacent floors, walls and ceilings and other surfaces can be easily and effectively cleaned

- They do not provide harbourage for pests

- They have taps with sensors to activate water flow

- The water that is dispensed is hot

- Soap dispensers are close to the tap

- Paper towel or hand dryers are close by

These facilities will need to be regularly cleaned and maintained to ensure they are hygienic and working correctly.

SUMMARY

Now that you have completed this unit, you should have the skills and knowledge to handle food safely during the storage, preparation, display, service and disposal of food.

If you have any questions about this resource, please ask your trainer. They will be only too happy to assist you when required.

REFERENCES

http://www.health.gov.au

http://www.foodtandards.gov.au/Pages/default.aspx

http://www.health.vic.gov.au/foodsafety/bus/templates.htm

http://www.foodtandards.gov.au/

http://www.foodstandards.gov.au/publications/documents/3_2_3.pdf

http://www.health.gov.au