National Occupational Standards for

HACCP Coordinator in the Food and Beverage Manufacturing Industry

Food Processing Skills Canada • Compétences Transformation Alimentaire Canada

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INTRODUCTION

The development of national occupational standard for HACCP Coordinator was part of a major national multi-year project, funded by the government of Canada's department of Employment and Social Development Canada (ESDC), called RAISING THE STANDARDS. The project aimed at documenting major job competencies needed to perform well in food manufacturing jobs, developing of job descriptions, essential skills profiles and language benchmark. The project also involved conducting a feasibility study for a national certification of skills program and a national accreditation of curriculum program. The projects run from 2014 to 2016.

ABOUT US | FOOD PROCESSING SKILLS CANADA

Food Processing Skills Canada (FPSC) is a well- integrated member of Canada's food processing community, working in conjunction with government, provincial associations, community colleges, workplace programs and industry specialists.

Our mandate is to educate and support the overall growth of this sector through various food safety and human resources initiatives.

Our not-for-profit council works with companies across Canada to develop national skill standards, relevant course content, labour market research, on-site training programs and worker certification programs. From start to finish, our work is driven-by and further validated for authenticity by food and beverage manufacturers themselves.

FPSC MANDATE | DEVELOPMENT OF NATIONAL OCCUPATIONAL STANDARDS FOR THE FOOD MANUFACTURING INDUSTRY IN CANADA

One of the FPSC mandates is to develop National Occupational Standards (NOS) for the industry. FPSC works with the industry to document the standards and ensure they are up to date. The standards are industry defined benchmarks of job competency.

These job competency standards are used to create or improve HR systems including competency systems, performance management systems, learning systems, etc. Educators use the job competency standards as a reference document to create or review curriculum content. Professional designations attest that professionals met the job competencies standards

HACCP COORDINATOR | NATIONAL OCCUPATIONAL STANDARD

The NOS for HACCP Coordinator document describes in detail eighty-six (86) main tasks HACCP Coordinator perform. Each main task lists the job performance indicators (behaviours) and knowledge requirements that an experienced, fully proficient HACCP Coordinator must be able to demonstrate when performing the task.

The HACCP Coordinator standards are part of the larger competency framework developed for the industry between 2014 and 2016 by Food Processing Skills Canada.

DEFINITION | HACCP COORDINATOR

HACCP Professionals are responsible for the development and implementation of a Hazard Analysis Critical Control Point (HACCP) system, or equivalent food safety plan. These individuals develop prerequisite programs for the premises, as well as prerequisite programs for shipping and receiving, equipment and maintenance, personnel and training, sanitation and pest control, recalls, and other operational control programs. HACCP professionals also develop HACCP or equivalent food safety plans by assembling a team, describing products and their intended uses, creating process flow and plant schematics, conducting hazard analysis, determining critical control points, as well as establishing critical limits, establishing procedures to monitor each CCP, to take corrective action, to verify and validate procedures and to establish record keeping and documentation control. HACCP professionals are also tasked to implement the organization's food safety management system by communicating food safety management systems to management and staff, by verifying programs and tasks are being completed as required, by reviewing and validating the food safety management system and by updating program documentation. They are also responsible for managing audits, managing facility pest control programs and managing organization's food traceability.

In addition, HAACP professionals work directly with operations staff to meet their needs and to problem solve in order to minimize disruption of production. They also are responsible for training and guiding others' performance in the HACCP process. These individuals are accountable for the performance of their entire team or department, as well as their own individual performance, and to the organization.

OVERVIEW | METHODOLOGY USED TO DEVELOP NATIONAL OCCUPATIONAL STANDARDS

The HACCP Coordinator standards are part of a larger competency framework developed for the industry between 2014 and 2016 by Food Processing Skills Canada. The typical methodology to develop national occupational standards, job competencies, is:

- Setting National Advisory Committee
- Conducting National Job Analysis
- Developing Job Competencies Content
- Conducting Stakeholder Review and Validation
- Approval of the National Occupational Standard (NOS)
- Publication of NOS in both official languages

The first phase involved extensive research, including review of over 100 existing standards, norms, curricula, job descriptions, etc. from Canada and around the world, resulting in a detailed dictionary of competencies for food safety.

The second phase involved extensive consultations with stakeholders through focus group, phone interviews, surveys and editorial reiterations. Stakeholders consulted are subject matter experts, highly experienced food safety professionals, representing a broad range of individuals working in food processing from across Canada matter experts, highly experienced food safety professionals, representing a broad range of individuals working in food processing from across Canada.

WHO USES NATIONAL OCCUPATIONAL STANDARDS

The NOS presents the most exacting, current and relevant occupational standards (job competencies) for food processing occupations in Canada.

The National Occupational Standards is a comprehensive set of performance and knowledge standards that clearly outlines what is required for success in the food processing industry. Food safety managers, students, educators, managers, employers and business owners are but a few of the individuals who can benefit from these standards.

The standards provide a general base of information on which a business can build its HR policies and procedures.

IF YOU ARE AN EMPLOYER

Leading-edge, progressive companies realize that their employees are a key asset, and are vital to effectively promote and deliver a product. They recognize that employee development aligns with their strategic business objectives, and is itself a strategy for profitability and competitiveness. Some specific ways that defined National Occupational Standards can benefit an organization include:

- ✓ Assisting in creating accurate job descriptions for recruitment and advancement;
- ✓ Assisting in assessing potential employees against specific benchmarked criteria;
- ✓ Setting standards for achievement and key performance indicators;
- ✓ Linking training and development policy and strategy to business objectives;
- ✓ Reviewing and rewarding employee performance; and,
- ✓ Contributing to improvements in retention, job satisfaction and job performance.

IF YOU ARE A STUDENT

Read through the National Occupational Standard to determine if food processing is a sector that matches your personal goals and skill areas.

Read the full set of occupational profiles:

- ✓ Get a sense of differences and similarities between them.
- ✓ Does one appeal to you more than another?
- ✓ Is one better suited to your skill set and interests?

Talk with your guidance counselor about the standards.

IF YOU ARE AN EMPLOYEE

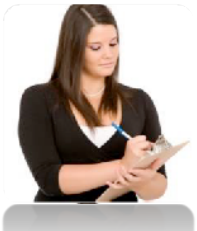
Taking a look at your skills can help you set and reach your career goals by assessing your strengths and weaknesses, identifying gaps and, in turn, identifying what training requirements you need to be competent in your field.

The standards are also helpful if you need to mentor peers or newly hired employees. Mentoring helps others benefit from your knowledge and experience and also provide the means for great teambuilding, which in turn ensures success for workers and employers.

The standards will help you answer the following questions:

- ✓ What occupational skills do I already have?
- ✓ What skills do I need to advance or improve my performance?
- ✓ What training do I need to improve my skillset?

IF YOU ARE A TEACHER, GUIDANCE COUNSELLOR OR TRAINING PROVIDER



For training institutions, standards can be an excellent resource for creating or redesigning training programs to meet the needs of industry and prepare learners for successful careers. The standards can serve as the framework around which to build the content of your programs by:

- ✓ Developing a strategic view of future learning requirements;
- ✓ Developing or updating curriculum and evaluation tools;
- ✓ Identifying group or organizational training needs;
- ✓ Integrating standards into on and off the job training programs;
- ✓ Identifying common and transferable skills in the occupation; and,
- ✓ Improving the relationship between formal training and industry needs.

See the **Appendix** for examples on how to use the job competencies for:

- ♦ Performance Management
- ♦ Training
- ♦ Interview
- ♦ On-boarding

HACCP COORDINATOR DEFINITION

DEFINITIONN OF OCCUPATION

HACCP Professionals are responsible for developing and implementing a Hazard Analysis Critical Control Point (HACCP) system or equivalent food safety plan. These individuals develop prerequisite programs for the premises and prerequisite programs for shipping and receiving, equipment and maintenance, personnel and training, sanitation and pest control, recalls, and other operational control programs. HACCP professionals also develop HACCP or equivalent food safety plans by assembling a team, describing products and their intended uses, creating process flow and plant schematics, conducting hazard analysis, determining critical control points, as well as establishing critical limits, establishing procedures to monitor each CCP, to take corrective action, to verify and validate procedures and to establish record keeping and documentation control. HACCP professionals are also tasked to implement the organization's food safety management system by communicating food safety management systems to management and staff, by verifying programs and tasks are being completed as required, by reviewing and validating the food safety management system and by updating program documentation. They are also responsible for managing audits, managing facility pest control programs, and managing the organization's food traceability.

In addition, HACCP professionals work directly with operations staff to meet their needs and to problem-solve in order to minimize disruption of production. They also are responsible for training and guiding others' performance in the HACCP process. These individuals are accountable for the performance of their entire team or department, as well as their own individual performance, and to the organization.

NOC & NOS | RELATION

The National Occupational Standard (NOS) for HACCP Coordinator relates to the occupations classified by the Government of Canada under the following National Occupational Codes (NOC):

- NOC 9213 Supervisors of Food, Beverage and Associated Products Processing

RELATED JOB TITLES

Food Product testers' supervisor
Production Supervisor – Food and beverage processing
Packaging supervisor – Food and beverage processing
Fish Processing supervisor

HACCP COORDINATOR AND OTHER OCCUPATIONS IN AN ORGANIZATION

The HACCP Coordinator standards are part of a larger competency framework developed by Food Processing Skills Canada for the industry. See all the 610 competencies units in Appendix B.

STANDARDS BY FUNCTION

In addition to the NOS for HACCP Coordinator, the industry competency framework includes national occupational standards (competencies) for the functions below. For each function, there are standards for management, supervisory and operator level.

- Food Safety
- Food Production
- Research and Product Development
- Facility and Equipment Maintenance
- Supply-Chain and Logistics
- Finance
- Human Resources
- Sales
- Marketing

STANDARDS BY OCCUPATION

In addition to the NOS for HACCP Coordinators, there are specific competency-based standards for the following occupations:

- Food Processor Operator, Sanitation Worker, Food Safety Manager, Quality Assurance Manager, Laboratory Technician, Import/Export Clerk, Material Handler, Production Supervisor, Front Line Worker, and Food Technologist.

ESSENTIAL SKILLS PROFILES

There are specific competency-based standards for the following occupations:

- Process Control & Machine Operator, Import/Export Clerk, Industrial Meat Cutter, Frontline workers, Team-lead, Millwright, Production Supervisor, Shipper Receiver, Material Handler, Food Science Technologist, Quality Assurance Manager, and Sanitation Worker.

All these resources, plus "employee self-assessment skills checklists" and "curriculum against competencies checklists," will be available to download at the **most extensive online skills library database for the food manufacturing industry**. All National Occupational Standards, essential skills profiles, job descriptions, and checklists are available in **both official languages.**

Contact or visit Food Processing Skills Canada to access this information.

OVERVIEW OF COMPETENCIES FOR HACCP COORDINATOR

A. Food Safety Management System

A.1 Establish Prerequisite Programs

- A.1.1 Establish prerequisite program for premises
- A.1.2 Establish prerequisite program for Transportation, purchasing, Shipping, Receiving and Storage
- A.1.3 Establish prerequisite program for Equipment
- A.1.4 Establish prerequisite program for personnel and training
- A.1.5 Establish prerequisite program for sanitation and pest control
- A.1.6 Establish prerequisite program for recalls
- A.1.7 Establish operational prerequisite control program
- A.1.8 Establish SOPs and documentation for prerequisite programs

A.2 Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)

- A.2.1 Assemble team
- A.2.2 Describe products and intended uses
- A.2.3 Create process flow diagram and plant schematic
- A.2.4 Verify process flow and plant schematic
- A.2.5 Conduct hazard analysis
- A.2.6 Determine critical control points
- A.2.7 Establish critical limits
- A.2.8 Establish procedures to monitor each critical control point (CCP)
- A.2.9 Establish procedures to take corrective action
- A.2.10 Establish verification and validation procedures
- A.2.11 Establish record keeping and documentation control procedures
- A.2.12 Conduct Gap Analysis

A.3 Implement Food Safety Management System

- A.3.1 Communicate food safety management systems to management staff
- A.3.2 Review and validate food safety management system
- A.3.3 Update program documentation
- A.3.4 Communicate details of food safety management system to production staff
- A.3.5 Monitor and verify food safety programs and tasks are being completed as required

A.4 Comply with Food Safety Management System

- A.4.1 Comply with food safety management system

A.5 Manage Audits

- A.5.1 Prepare for audits
- A.5.2 Participate in audits

B. Sales and Client Relations

B.1 Maintain Client Relationships

- B.1.1 Handle customer concerns or complaints

C. Workforce Management

C.1 Train Staff

- C.1.1 Conduct training
- C.1.2 Conduct one-on-one training

D. Record Management

D.1 Complete Record Management Tasks

- D.1.1 Keep records up-to-date

E. Organizational Policies and Procedures

E.1 Comply with Legislation/ Regulations

- E.1.1 Interact with regulatory agents/inspectors
- E.1.2 Liaise with contractors

E.2 Comply with Organizational Policies and Procedures

- E.2.1 Develop organizational policies
- E.2.2 Comply with organizational policies and procedures/SOPs

F. Leadership

F.1 Provide Leadership

- F.1.1 Delegate tasks

F.2 Demonstrate Professionalism

- F.2.1 Facilitate collaboration of work teams
- F.2.2 Collaborate with team members
- F.2.3 Develop professionally
- F.2.4 Exhibit professional and ethical conduct
- F.2.5 Mentor/coach others
- F.2.6 Manage own stress
- F.2.7 Manage time
- F.2.8 Contribute to a solution-focused workplace
- F.2.9 Collaborate with external organizations/agencies

G. Communications

G.1 Communicate Effectively

- G.1.1 Use active listening skills
- G.1.2 Use speaking skills
- G.1.3 Use writing skills
- G.1.4 Conduct meetings and presentations
- G.1.5 Manage internal and external communications
- G.1.6 Use computers and/or electronic devices

HOW TO READ THE COMPETENCY UNITS

DEFINTION | JOB COMPETENCIES

Job competencies are a common language to describe the skills that industry needs from its workers and the skills that educators need to design curriculum to train the workers.

A **competency** is a skill or ability to do something. The skills can be learned through training or experience and through a combination of practice and knowledge acquisition.

A **job competency** is the description of the ability of a worker to perform a job task. A worker to be deemed competent must demonstrate they have the ability to perform the task. **A supervisor can assess if the worker has ability in a task by observing the worker behaviour and assessing the worker knowledge of concepts needed to perform the task.**

Each national occupational standards document describes the **main tasks** needed to perform in a particular job or function in the organization. For each task the document lists the **observable behaviors and knowledge requirements** to perform the task. The observable behaviors are called performance indicators.

Both the performance and knowledge indicators are used to assess competency at work, level of competency to obtain a professional designation, level of competency of job candidates, readiness of a worker for a promotion, job performance and training needs. The performance and knowledge indicators are also used to create curriculum that aims at developing competency in the performance of a work task.

DESCRIPTION OF TASK, PERFORMANCE AND KNOWLEDGE

For each task, the following information available:

PURPOSE OF THE TASK

Outlines the intent of the task

PERFORMANCE

Outlines specific observable tasks practitioners need to complete to demonstrate competency

KNOWLEDGE

Outlines underpinning knowledge needed to perform the task competently

VARIABLES, RANGE OF CONTEXT

Outlines the fluidity of the task according to organizational needs

Contextual Information helps readers understand the relevance and importance of the task to the occupation

LEVEL OF COMPLEXITY

Indicates the level of learning needed to be competent in the task. The levels are based on an adaptation of the Bloom's taxonomy: recall, remember, understand, apply, analyze, evaluate, create and transform.

ADDITIONAL INFORMATION

Level of Responsibility: Indicates if the competency applies to operator, supervisory or management level.

Autonomy: describes if the competency would be performed independently, or with the assistance or overview of another.

GLOSSARY

Provides a summary of terms, concepts, or acronyms

A. Food Safety Management System

A1. Establish Prerequisite Programs

A.1.1 Establish prerequisite program for premises
A.1.2 Establish prerequisite program for Transportation, purchasing, Shipping, Receiving and Storage
A.1.3 Establish prerequisite program for Equipment
A.1.4 Establish prerequisite program for personnel and training
A.1.5 Establish prerequisite program for sanitation and pest control
A.1.6 Establish prerequisite program for recalls
A.1.7 Establish operational prerequisite control program
A.1.8 Establish SOPs and documentation for prerequisite programs

Job Competency

A.1.1 Establish prerequisite program for premises

Reference Number: 3457

Purpose of the Task

There are specific requirements for the premises in a food production operation which contribute to an effective food safety system.

Performance

1. Review the premises, its history and its features, including:
   - outside property, including site location, drainage, security, landscaping, access points
   - building(s), including:
     - design, e.g. size, construction
     - construction and maintenance, e.g. floors, walls, ceiling, roof
     - lighting
     - ventilation
     - waste, e.g. inedible food waste disposal, recycling
     - air quality
   - sanitary facilities, e.g. employees facilities, hand washing stations, sanitizing installations
   - traffic patterns for movement of personnel, raw materials, waste, rework
   - water and water filters, steam, ice quality protection and supply
   - glass items and building fixtures
2. Identify processes that need to be developed or adapted, e.g. maintenance schedules, disposal procedures, inspection schedules, security systems
3. Review requirements periodically and update as required when changes occur within premises, for example:
   - new construction
   - renovations
   - wear and tear
   - pest control
   - regulatory change:
     - update as required
     - review program annually

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Facility design and layout, e.g. site map
5. High risk areas
6. Indicators of contamination, e.g. mould, condensation, foreign materials
7. Applicable regulations and guidelines for building and construction materials, including:
   - bylaws
   - Building Code
   - Fire Code
   - water quality standards
   - lighting intensity standards (lux)
8. Industry best practices
9. Distinction between low and high risk food products
10. Where to find local results for water testing
11. In-house testing procedures, e.g. water, steam, air
12. Production processes

Variables, Range of Context

1. Budget constraints
2. High-risk versus low-risk food products

3. Regulatory requirements may vary, e.g. building code for renovations, age of building
4. Age and condition of building will affect how and when changes can be made to premise

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.2 Establish prerequisite program for Transportation, purchasing, Shipping, Receiving and Storage

Reference Number: 3458

Purpose of the Task

The requirements for the transport, storage, purchase, shipping and receiving activities in a food production operation contribute to an effective food safety system.

Performance

1. Review transport, storage, purchase, shipping and receiving requirements, including:
    - modes of transportation, including:
        - food carriers
        - truck inspection
        - temperature
        - requirements for seals
    - storage, including:
        - temperatures
        - inventory
        - work-in-progress, e.g. staging
        - stock rotation
        - segregation of materials
        - protection of ingredients
    - purchasing practices and supplier approval process:
        - supplier performance evaluation
    - receiving, including:
        - inspection practices
        - material acceptance protocols, e.g. approved products and vendors
        - transfer to storage protocols
    - shipping, including:
        - proper loading
        - product integrity
        - cross-docking
    - hold and release procedures
    - security requirements, e.g. Custom Trade Partnership against Terrorism (CTPAT), Partners in Protection (PIP)
2. Review suppliers to ensure conformance to standards, e.g. specifications, Certificate of Analysis (COA) or letter of guarantee (LOG)
    - make recommendations for approval or removal
    - develop supplier audit program
3. Identify processes that need to be developed or adapted
4. Review program requirements periodically and when changes occur in these areas, e.g. supplier complaints:
    - update as required

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Supplier approval process, e.g. ingredients, packaging, non-food chemicals
5. Supplier assessments and requirements
6. Specifications for products being received and shipped
7. Indicators of chemical, physical or microbiological contamination
8. Storage requirements for received and shipped products
9. Spill procedures for allergens and contaminants
10. Conditions required for shipping
11. Applicable regulations and guidelines, for example:
    - Material Safety Data sheets (MSDS)
    - Safety Data Sheet (SDS)
    - export requirements, e.g. prior notice requirement, inspections

    - USDA regulations
    - phyto-sanitary regulations
12. Company inventory system and traceability
13. Brokerage, duty and demurrage charges
14. Temperature control requirements for transportation, if applicable

Variables, Range of Context

1. Product shortages and supplier issues due to unforeseen events, e.g. weather, disease outbreak, natural disasters, company bankruptcy, recalls
2. Seasonality – crops from different regions, trucking availability changes depending upon season
3. Volume purchases that are out of the ordinary
4. Agreements with carriers, e.g. full truck load (FTL), less than a full truck load (LTL), compliance to sanitary requirements and security

Glossary

- **Allergen:** a known food component that causes an immunological physical response, often a protein, e.g. nuts, eggs, milk.
- **Contamination:** introduction or occurrence of an unwanted organism, taint or substance to packaging, food or the food environment. Contamination includes physical, chemical, biological and allergen contamination.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.3 Establish prerequisite program for Equipment

Reference Number: 3459

Purpose of the Task

The equipment and preventative maintenance programs in a food production operation contribute to an effective food safety system.

Performance

1. Work cooperatively with maintenance and/or engineering departments
2. Review equipment requirements, including:
    - design and installation
    - calibration
    - inspections
    - preventative and corrective maintenance, e.g. temporary repair policies
    - sanitation
    - operating requirements
    - performance validation
3. Review guidelines for equipment purchasing/acquisition
4. Review equipment list and parts
5. Review training requirements, e.g. for operator, sanitation, maintenance
6. Identify processes that need to be developed or adapted, for example:
    - Maintenance Standard Operating Procedures
    - Sanitation Standard Operating Procedures(SSOP)
    - Calibration Standard Operating Procedures (CSOP)
    - flow charts
7. Review requirements periodically and update as required when changes occur
    - update as required

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Types and purposes of equipment required for food processing
5. Master schedules, i.e. maintenance, calibration
6. Acceptable chemicals, coatings and paints used on equipment
7. Acceptable materials used in construction of equipment, e.g. stainless steel
8. What types of equipment require calibration
9. Applicable regulations and guidelines
10. Safety controls
11. Food ingredients/products and their handling requirements
12. Standards for equipment, e.g. CSA

Variables, Range of Context

1. Some equipment is serviced by outside vendors only
2. Occupational Health and Safety requirements will vary from one jurisdiction to another
3. The same equipment may be used in a different manner for different products
4. Budget to purchase and maintain equipment may vary

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.4 Establish prerequisite program for personnel and training

Reference Number: 3460

Purpose of the Task

The personnel and training prerequisite program in a food production operation contributes to an effective food safety system.

Performance

1. Review personnel, visitor and contractor requirements, including:
    - good manufacturing practices (GMPs) or Prerequisite programs (PRPs)
    - site orientation and general safety rules
    - training requirements for general staff, including:
        - food safety overview, e.g. HACCP
        - personal hygiene
        - allergen knowledge
        - cross-contamination
        - security
    - training requirements for technical staff, including:
        - operations, e.g. equipment operation and maintenance, potential hazards
        - sanitation and cleaning
        - critical control points (CCPs)
        - certifications required
    - visitor log and policies, e.g. hygiene, security
    - policies for on-site contractors
2. Identify policies and programs that need to be developed or adapted, e.g. training programs and documentation, job descriptions, work procedures, records of employee participation
3. Review requirements periodically and update as required when changes occur

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Current training programs
5. Costs/benefits of properly trained employees
6. Company/corporate policies and procedures
7. Applicable regulations and guidelines
8. Employee background, e.g. experience level, cultural background, training, first language

Variables, Range of Context

1. Health requirements/communicable disease policies for employees may vary with organization, e.g. vaccinations
2. Demographics, language and cultural background of employees will vary approach
3. Seasonal variations

Glossary

- **Allergen:** a known food component that causes an immunological physical response, often a protein, e.g. nuts, eggs, milk.
- **Contamination:** introduction or occurrence of an unwanted organism, taint or substance to packaging, food or the food environment. Contamination includes physical, chemical, biological and allergen contamination.
- **Critical Control Point (CCP):** a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- **Cross-contamination:** the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment,

procedures, or products, example. Cross-contamination can occur when raw food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready to eat foods.

- **Hazardous Analysis Critical Control (HACCP):** a system that identifies, evaluates and controls hazards, which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.5 Establish prerequisite program for sanitation and pest control

Reference Number: 3461

Purpose of the Task

The requirements for sanitation and pest control contribute to an effective food safety system in a food production operation.

Performance

1. Review facility operations
2. Conduct risk assessment
3. Research industry best practices
4. Establish sanitation and pest control requirements, including:
    - sanitation program, including:
        - scheduling/frequency for all equipment and rooms in facility
        - cleaning and sanitizing procedures
        - cross-contamination prevention procedures
        - pre-operational inspections
        - environmental sampling
        - types of cleaning products, water temperature, types of chemicals and rotation
        - letters of guarantee from chemical and pesticide suppliers, e.g. food-grade products
        - employee training
    - pest control program, including approved in house or third party contractor treatments, inspections, documentation and recordkeeping
5. Identify elements that need to be developed or adapted, e.g. training programs, SOPs, forms, work instructions
6. Review requirements periodically and update as required when changes occur

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Microbiology basics, e.g. pathogens, biofilms
5. Environmental testing procedures, e.g. frequency
6. Trend analysis, e.g. analysis of test results to identify areas of concern
7. Types of cleaning and sanitizing chemicals and concentrations permitted
8. Product/equipment to be cleaned/sanitized
9. Facility and equipment characteristics that affect cleaning, e.g. safety features, lock out
10. Certification requirements for cleaning products, e.g. organic
11. Characteristics of product, e.g. raw, finished
12. Workplace Hazardous Materials Information System (WHMIS)
13. Personal protection equipment (PPE)
14. Material Safety Data sheets (MSDS)
15. Cross-contamination risks
16. Indicators of pests
17. Pest controls suitable for food processing environments
18. Approved pest control contractors
19. Applicable regulations and guidelines
20. Requirements of approved contractors, e.g. license, clearance letters, insurance

Variables, Range of Context

1. Training requirements may vary depending upon whether this is handled in house or externally
2. Requirements will vary with type of pests
3. Climate
4. Location, e.g. close to river, woods
5. Identity Preserved considerations, e.g. kosher, organic
6. Food products and their sources of origin will vary and will attract/contain different types of pests

7. Dry clean versus wet clean facilities

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.6 Establish prerequisite program for recalls

Reference Number: 3462

Purpose of the Task

The prerequisite program for recalls contributes to an effective food safety system in a food production operation.

Performance

1. Research industry best practices
2. Develop recall requirements, for example:
    - identify recall team, e.g. legal, media contact:
        - define roles and responsibilities
        - contact information
    - food safety assessment criteria to determine if recall, product recovery or stock is required
    - assemble customer list, include emergency contact info
    - create communication templates/letters for recall for internal and external stakeholders
    - accommodate for 24/7 implementation
    - pre-printed documentation to track recalled products
    - assemble product list
    - establish mock recall exercise, including frequency
    - product identification, e.g. label, lot code
    - recall verification, i.e. reconciliation that products distributed have been controlled
        - returned
        - destroyed
        - relabelled
    - post-mortem assessment
3. Participate in design of traceability system for all materials
4. Identify processes and programs that need to be developed or adapted, e.g. recall plan, training programs, Standard Operating Procedures (SOPs), forms
5. Review requirements periodically and update as required when changes occur, e.g. audit reports, customer complaints, trend analysis

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Food recall classifications
5. Product coding systems, e.g. lot identification and product information
6. Applicable regulations and guidelines, e.g. who has to be involved in registered establishments
7. Current industry recalls
8. Distribution and inventory control systems
9. Risk assessment and hazard analysis
10. Company's raw and finished ingredients/products
11. Logistics, e.g. warehouse capacity
12. Company's management information system, Enterprise Resource Planning (ERP), recordkeeping system
13. Crisis management
14. Business continuity

Variables, Range of Context

1. Technology used
2. Certification bodies
3. Size of company will affect size of recall team and complexity of recall
4. Food safety standards
5. Company culture
6. Type of food products, e.g. perishable, non-perishable
7. Resources for recall

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.7 Establish operational prerequisite control program

Reference Number: 3463

Purpose of the Task

The prerequisite program for other control programs contributes to developing an effective food safety system.

Performance

1. Review requirements for other operational control programs, for example:
   - allergen control program
   - cross-contamination
   - food additives and nutrients
   - antibiotics and chemical residues
   - hazardous extraneous matter
   - food processing aids, e.g. food irradiation, modified atmosphere packaging (MAP)
   - product labels
   - identity preservation of products, e.g. kosher, organic
   - microbiological control programs, e.g. listeria, e. coli
2. Identify policies and procedures that need to be developed or adapted, for example:
   - training programs
   - Standard Operating Procedures (SOPs)
   - forms and work instructions
   - log books
   - security programs
3. Review requirements periodically and update as required when changes occur, for example:
   - new audit requirements
   - annual HACCP reviews
   - changes to business or products
   - changes to verification procedures
   - installation of new equipment
   - trend analysis/verification

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Re-work programs
5. Undeclared ingredients
6. Allergens lists and food sensitivities
7. Foods and additives
8. Product labelling requirements
9. Applicable regulations and guidelines, e.g. domestic, international,
10. Receiving and storage programs
11. Working knowledge of processes
12. Supply chain
13. Customers/consumers
14. Chemical control program
15. Sanitation program
16. Recall procedures
17. Traceability programs
18. Foreign material detection system

Variables, Range of Context

1. Different products and their requirements
2. Need for identity preservation, e.g. kosher, organic, non-GMO
3. Location and regulations of market, e.g. domestic or international

Glossary

- **Allergen:** a known food component that causes an immunological physical response, often a protein, e.g. nuts, eggs, milk.
- **Cross-contamination:** the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment, procedures, or products. Cross-contamination can occur when raw food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready to eat foods
- **Traceability:** ability to trace and follow raw materials, components and products through all stages of receipt, production, processing and distribution, both forwards and backward.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

A.1.8 Establish SOPs and documentation for prerequisite programs

Reference Number: 3464

Purpose of the Task

Standard Operating Procedures and their supporting documents and tools contribute to consistent, safe and compliant operations within the entire organization.

Performance

1. Establish formats for SOPs that, for example:
   - is concise
   - is easy-to-read
   - use pictures, photos and graphics whenever possible
   - are available in different languages, as appropriate
   - are identified according to document control system, e.g. identifying number, revision number
2. Establish development process, from development to revision
3. Establish SOPs, including:
   - who procedure applies to
   - what procedure applies to
   - when procedure must be carried out
   - how procedure must be carried out, i.e. step-by-step instructions
   - how procedure will be monitored including frequency and person(s) responsible
   - how deviations will be identified using root cause analysis, documented and communicated
   - how corrective actions will be implemented, monitored and documented
   - how preventative measures will be implemented, monitored and documented
   - how allowable exceptions will be handled
   - how procedure will be verified and person(s) responsible
4. Establish supporting documents, e.g. checklists

Knowledge

1. Food production processes
2. Document and records control system
3. Document development processes
4. Document design
5. Applicable regulations for organization, i.e. federal, provincial/territorial, municipal
6. Good Manufacturing Practices
7. Lean Manufacturing Principles
8. Roles and responsibilities of workforce

Variables, Range of Context

1. SOPs may require updates when products, equipment or equipment layout change
2. Company culture, are SOPs available and how they are used
3. Templates may be available, and will vary
4. SOPs required for specific facility functions, e.g. Sanitation Standard Operating Procedures (SSOPs) for facility cleaning and sanitizing

Glossary

- **Deviation:** an incorrect variation to an SOP process
- **Exception:** a controlled variation of the SOP process
- **Standard Operating Procedures (SOP):** a written set of instruction that describes how to perform the required steps for a particular task or sequence of tasks.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

A. Food Safety Management System

A2. Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)

A.2.1 Assemble team
A.2.2 Describe products and intended uses
A.2.3 Create process flow diagram and plant schematic
A.2.4 Verify process flow and plant schematic
A.2.5 Conduct hazard analysis
A.2.6 Determine critical control points
A.2.7 Establish critical limits
A.2.8 Establish procedures to monitor each critical control point (CCP)
A.2.9 Establish procedures to take corrective action
A.2.10 Establish verification and validation procedures
A.2.11 Establish record keeping and documentation control procedures
A.2.12 Conduct Gap Analysis

Job Competency

A.2.1 Assemble team

Reference Number: 2865

Purpose of the Task

Assembling the key personnel involved in the food production operation is important for developing an effective food safety plan.

Performance

1. Identify knowledgeable representatives from relevant departments, for example:
    - quality assurance
    - production
    - shipping and receiving
    - sanitation
    - maintenance
    - upper management
    - research and development/product development
    - purchasing
    - marketing and sales
    - accounting
    - human resources
2. Identify external resources involved in operations, for example:
    - consultants
    - regulatory officials
    - trainers
    - industry organizations
    - ingredient and packaging suppliers
    - service providers/contractors, e.g. pest control, sanitation
    - legal professionals
    - public relations
    - insurance providers

Knowledge

1. Management team
2. Company structure
3. Food Safety programs, e.g. HACCP
4. Good Manufacturing Practices (GMP)
5. Lean Manufacturing
6. Standard Operating Procedures (SOPs)
7. Role of food safety coordinator and level of authority
8. Types of products, restrictions and regulations associated with the products
9. Markets
10. Physical locations of processing plants

Variables, Range of Context

1. International or nationally-owned organizations may do this differently, e.g. legal
2. Privately or publically owned will affect potential liability, e.g. legal may be involved
3. Company culture will affect the approach to this skill
4. Geography may limit who can be involved, e.g. at head office
5. Challenges or changes affecting the company, e.g. economy, change in resources, lay-offs
6. Size of company, e.g. one role may take on many tasks

Glossary

- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are

significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.2 Describe products and intended uses

Reference Number: 2866

Purpose of the Task

Describing the food and beverage products and their intended uses are the basis for developing of an effective food safety plan.

Performance

1. Identify each food and beverage product or groups of products to be defined
2. Describe food and beverage product and intended use(s)
3. Develop a glossary of terms, e.g. product names, acronyms
4. Collect input from other internal departments, e.g. research and development, purchasing, sales, marketing
5. Collect input from customers and vendors, as required
6. Record details, including:
    - types and characteristics of raw materials, e.g. allergens, and country of origin
    - product characteristics, e.g. pH, water activity, salt
    - ingredients used and precautions
    - production processes
    - where product(s) will be sold
    - shelf life including storage conditions, e.g. humidity, temperature
    - labelling requirements, e.g. ingredients, use instructions, allergen declarations
    - packaging
    - size
    - special distribution controls, e.g. storage conditions for ingredients and finished products
    - intended consumer groups, e.g. characteristics
    - how products will be used, e.g. ready to eat
    - company assigned product number
    - Identity Preserved (IP), e.g. kosher, organic, gluten free, Fair trade, Non Genetically Modified Organism (GMO)

Knowledge

1. Company's product system
2. Principles of food safety
3. Basic food sciences, e.g. microbiology, chemistry, processing
4. Applicable regulations and industry best practices, e.g. packaging
5. Good Manufacturing Practices (GMP)
6. Lean Manufacturing
7. Standard Operating Procedures (SOPs)
8. Needs and expectations of customers, consumers and the target market

Variables, Range of Context

1. This information is documented will vary depending upon applicable regulatory requirements, e.g. CFIA
2. Varies with products developed, food commodity and intended market

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

A.2.3 Create process flow diagram and plant schematic

Reference Number: 2867

Purpose of the Task

Creating a process flow diagram and plant schematic are important visual and conceptual aids for developing an effective food safety management plan.

Performance

1. Observe operations
2. Interview employees about process and movements through work area
3. Identify major routes by tracking movements of employees through plant
4. Create process flow diagram:
    - list process steps from receiving to distribution
    - identify introduction of utilities or services, e.g. water, steam, ice, gas, backflow preventers
5. Create plant schematic, indicating uses of areas and locations of:
    - employee facilities, for example:
        - employee entrance
        - change rooms
        - clean linen area
        - washrooms
        - lunchrooms
        - sanitizing and handwashing stations
        - foot and hand dips
    - sanitation facilities, for example:
        - foaming station
        - clean-in-place (CIP) station
        - chemical storage, e.g. spill kits
        - recycling
        - waste containers
        - utensil and equipment washing area
        - laundry area
        - truck washing area
    - occupational health and safety facilities, for example:
        - muster points
        - first aid stations, e.g. eye wash
        - fire extinguishers/pull stations
    - Process areas, for example:
        - production lines
        - equipment
        - staging areas
        - animal holding areas
    - storage areas, for example:
        - cool rooms
        - warm rooms
        - hold area
        - allergens storage
    - returns area
    - maintenance areas:
        - boilers
        - HVAC
    - inspection area
    - laboratories
    - shipping/receiving docks and doors
    - offices
    - hygienic zoning, e.g. colour-coded
    - visitor entry stations and restrictions
    - pest control devices

6. Add flow of materials and people to plant schematic, for example:
    - ingredients
    - non-food chemicals
    - waste/inedible products
    - raw and cooked products
    - packaging materials
    - employees
    - in process rework and rework due error
    - secondary products, i.e. product seconds'
    - clean-in-place (CIP)
    - air flow
7. Identify locations of potential hazards and cross-contamination

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Cross-contamination risks
5. Production processes
6. Facility blueprints, if available
7. Employee flow patterns, shifts and schedules
8. Products and waste products produced
9. Applicable regulations, e.g. required locations of wash stations, fire exits

Variables, Range of Context

1. There may be multiple overlaying maps that specialize in different areas, e.g. safety
2. Some organizations may operate with different shifts or 24 hours, in which case they may want to create separate schematics based on the work habits of employees on different shifts

Glossary

- In process rework: waste material such as trims that are fed back into the process.
- Rework due to error: process is redone to meet specifications, e.g. packaging.
- Clean-in-place: a cleaning system that allows for cleaning and sanitation of enclosed food production equipment without requiring disassembly, e.g. piping that needs to be flushed.
- Cross-contamination: the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment, procedures, or products, example: cross contamination can occur when food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready-to-eat foods

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

A.2.4 Verify process flow and plant schematic

Reference Number: 2868

Purpose of the Task

Comparing the process flow and current practices to legislated and company requirements is important for developing an effective food safety management plan.

Performance

1. Compare process flow diagram and plant schematic to daily operations:
   - compare designated use of spaces with actual use
   - observe processes and employee movements and compare to diagram and schematic
   - check diagram and schematic over different plant operations shifts to identify variations
2. Compare current internal practices to requirements
3. Identify variations or gaps and revisions needed

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Cross-contamination risks
5. Production processes and product flow
6. Facility blueprints or floor plan
7. Personnel practices, flow and variations
8. Products and waste products produced
9. Applicable regulations, industry standards and industry best practices, e.g. national and international
10. Company culture and organizational standards
11. Basic food science
12. Food safety practices
13. Available training and resources, internally and externally

Variables, Range of Context

1. Shift and schedules will affect personnel practices
2. Seasonality, e.g. products being handled at different times
3. Substantial changes in number of staff, e.g. flow will differ during peak season
4. New industry standards and regulations

Glossary

- Cross-contamination: the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment, procedures, or products. Cross-contamination can occur when raw food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready to eat foods.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

A.2.5 Conduct hazard analysis

Reference Number: 2869

Purpose of the Task

Conducting hazard analyses contributes to an effective food safety system in a food production operation.

Performance

1. Review product descriptions, linkages, process flow diagrams and plant schematic
2. Identify biological, chemical and physical hazards for raw materials and each process step, including:
   - naturally occurring hazards, e.g. pathogens, allergens
   - contamination of natural environment, e.g. sewage, chemical effluents
   - contamination during handling, e.g. unsanitary or unsafe transportation, storage, processing, preparation
   - cross-contamination during handling, processing and storage, e.g. finished product with raw product, chemical contamination due to improper use and storage of additives, cleaners, fuel
3. Analyze potential risks based on identified hazards, considering, for example:
   - target markets
   - ingredients, sources, storage, handling
   - formulations
   - preparation/processing method
4. Assess significance of risk, e.g. use risk assessment matrix (severity vs likelihood)
5. Identify control measures, e.g. Food Safety Enhancement Program (FSEP)

Knowledge

1. Chemical, physical and biological hazards
2. Levels of hazard risk, e.g. low to severe
3. Hazard sources and control measures
4. Principles of risk analysis
5. Product knowledge and established risks
6. Food science, e.g. effect of water activity, pH, temperature, bacteria
7. Current food safety control programs
8. HACCP food safety system
9. Good Manufacturing Practices (GMP)
10. Lean Manufacturing
11. Standard Operating Procedures (SOPs)

Variables, Range of Context

1. Type of food product, e.g. fish, grain
2. Innovative or new products without history

Glossary

- Allergen: a known food component that causes an immunological physical response, often a protein, e.g. nuts, eggs, milk. Contamination: introduction or occurrence of an unwanted organism, taint or substance to packaging, food or the food environment. Contamination includes physical, chemical, biological and allergen contamination.
- Critical Control Point (CCP): a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- Cross-contamination: the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment, procedures, or products, example: cross contamination can occur when food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready-to-eat foods
- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are significant for food safety.
- Pathogen: any disease-producing agent, especially a virus, bacterium or other micro-organism.

- Traceability: ability to trace and follow raw materials, components and products through all stages of receipt, production, processing and distribution, both forwards and backwards.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.6 Determine critical control points

Reference Number: 2870

Purpose of the Task

Identifying critical control points in processing food and beverage products contributes to an effective food safety system.

Performance

1. Use results from hazard analysis to identify critical control points (CCPs)
2. Use CCP Codex Decision Tree or HACCP Determination Table to determine which process control points are critical control points
3. Determine control for hazards is in place at critical control points
4. Implement control measure for CCP, e.g. modify product or process

Knowledge

1. Food science, e.g. effect of water activity, pH, temperature, bacteria
2. Process flow
3. Equipment
4. Regulations and available resources, e.g. Food and Drug Administration (FDA), Seafood HACCP Guide
5. HACCP food safety management system
6. Good Manufacturing Practices (GMP)
7. Lean Manufacturing
8. Standard Operating Procedures (SOPs)

Variables, Range of Context

1. Type of product, e.g. fish, grain
2. Innovative or new products without history
3. Domestic or international shipping

Glossary

- Critical Control Point (CCP): a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.7 Establish critical limits

Reference Number: 2871

Purpose of the Task

Establishing critical limits helps contribute to an effective food safety system.

Performance

1. Review existing criteria in relation to respective scientific basis
2. Set critical limits to effectively control the hazard at each CCP
3. Verify effectiveness of critical limits, e.g. consistency

Knowledge

1. Applicable regulations regarding hazards
2. Current research on critical limits of hazards
3. Food science, e.g., effect of water activity, pH, temperature, bacteria, shelf life, challenge testing
4. Company/organization's operating limits
5. Requirements of target markets, e.g. baby food, specifications
6. Suppliers, e.g. country of origin
7. HACCP food safety system
8. Good Manufacturing Practices (GMP)
9. Lean Manufacturing
10. Standard Operating Procedures (SOPs)

Variables, Range of Context

1. Food product, e.g. fish, grain
2. Innovative or new products without history, e.g. no existing criteria, therefore challenge testing is required
3. Customer specifications and standards

Glossary

- Challenge testing: a test that simulates what happens to a product during processing, distribution and subsequent preparation and handling should it become contaminated, to determine if the organisms would present a potential health hazard or spoilage risk.
- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.8 Establish procedures to monitor each critical control point (CCP)

Reference Number: 2872

Purpose of the Task

Procedures for monitoring critical control points contribute to an effective food safety system.

Performance

1. Determine appropriate methods to monitor CCP
2. Establish on-line procedures, for example:
   - document checks
   - equipment calibrations
   - observation of process
   - inspections of ingredients and products, e.g. sampling, testing
   - records
3. Establish off-line procedures, e.g. measuring levels of hazards, equipment calibration
4. Determine equipment to use for monitoring on- and off-line
5. Determine who is responsible for monitoring CCP
6. Determine frequency of monitoring, e.g. ongoing, specified intervals
7. Ensure documentation of monitoring procedures specify:
   - what is being monitored
   - person responsible
   - date and time
   - procedure followed and deviations
   - verification of completed task and documentation

Knowledge

1. Critical control points
2. Critical limits
3. Operating limits
4. On-line and off-line monitoring procedures
5. External resources, e.g. standards, specifications, guidelines
6. HACCP food safety system
7. Good Manufacturing Practices (GMP)
8. Lean Manufacturing
9. Standard Operating Procedures (SOPs)

Variables, Range of Context

1. Certifications required for food safety system, e.g. licensed operator, pasteurizer, retort

Glossary

- Critical Control Point (CCP): a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- Critical limit: a criterion that separates acceptability from unacceptability.
- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.9 Establish procedures to take corrective action

Reference Number: 2873

Purpose of the Task

Procedures for taking corrective actions contribute to an effective food safety system.

Performance

1. Establish corrective action procedures for:
   - immediate product or process action to correct situation
   - isolation/segregation and disposal of product
   - investigations and root cause analysis
   - development of preventative measures
2. Ensure employees responsible for monitoring have authority and access to direct report to take corrective action as required, to eliminate deviation
3. Establish process to verify corrective action:
   - designate team/person to verify corrective action
   - identify methods for verification
   - validate after appropriate period of time
4. Ensure documentation for corrective action system includes:
   - date and time problem was identified
   - description of investigation, including root cause analysis
   - appropriate team/person responsible for corrective action taken
   - corrective and preventative action taken
   - date actions taken
   - date action is verified and validated
   - team/person responsible for verification
5. Train key staff to implement and maintain corrective action procedure

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Development of corrective actions
5. Operational control programs
6. Document completion and distribution
7. Document control system

Variables, Range of Context

1. Company culture

Glossary

- Deviation: a failure to meet required critical limits for a critical control point, or a failure to meet a standard identified in a prerequisite program or a process control.
- Root cause analysis: a term that describes a wide range of investigative approaches, tools and techniques used to identify the cause of problem or factor that has caused a non-conformance or deviation from specifications.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.10 Establish verification and validation procedures

Reference Number: 2874

Purpose of the Task

Verifying and validating all aspects of operations contributes to an effective food safety system.

Performance

1. Designate staff to conduct verification, e.g. independent lab, staff not involved in monitoring
2. Determine frequency for verification that ensures facility control
3. Determine effectiveness of verification and validation procedures:
    - on-site observations, internal audits
    - documentation reviews
    - one on one interviews
    - follow up, as necessary

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Efficient, effective strategies to verify critical control point (CCP) operations
5. Types of equipment and processes that require monitoring
6. Types of monitoring equipment
7. Critical limits
8. Critical control points (CCPs)
9. Company policies and procedures, e.g. recall, traceability
10. Principles of verification and validation
11. Research methods
12. Risk assessment

Variables, Range of Context

1. Structure of organization
2. Corporate culture
3. Availability of independent resources for testing

Glossary

- Critical Control Point (CCP): a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- Critical limit: a criterion that separates acceptability from unacceptability.
- Validation: a system by which you determine if processes and procedures are working.
- Verification: a process to determine if a task is completed according to the specified process.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.11 Establish record keeping and documentation control procedures

Reference Number: 2875

Purpose of the Task

Establishing recordkeeping and documentation control procedures contributes to an effective food safety system.

Performance

1. Define supporting documentation and records requirements for program prerequisites and CCP operations, e.g. HACCP log, deviation log
2. Establish system for document control, e.g. version control, identification, authorization
3. Establish standards for record completion, e.g. complete, dated, legible, accurate
4. Establish requirements for completing and storing records, consider:
    - regulations
    - customer requirements
    - shelf life of product

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Applicable regulations
5. Supporting documentation
6. Recording and record keeping
7. Computer programs

Variables, Range of Context

1. Size of company
2. Changes in company
3. Changes in technology

Glossary

- Critical Control Point (CCP): a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level. Deviation: a failure to meet required critical limits for a critical control point, or a failure to meet a standard identified in a prerequisite program or a process control.
- Hazardous Analysis Critical Control (HACCP): a system that identifies, evaluates and controls hazards, which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.2.12 Conduct Gap Analysis

Reference Number: 3465

Purpose of the Task

Conduct a gap analysis to determine current vulnerabilities and threats to an organization to reach what and how they can be mitigated. This helps prevent food safety incidents, costly recalls, and production interruptions.

Performance

1. Review current practices:
   - use forms and resources available, e.g., Small Scale Food Processor Association (SSFPA), Canadian Food Inspection Agency (CFIA) Prerequisite Program (PP)checklist
2. Compare current practices to requirements
3. Identify gaps
4. Identify priorities

Knowledge

1. Applicable regulations, e.g. domestic, target market
2. Industry standards, e.g. quality, food safety
3. Company/organization's goals and objectives
4. Current documentation system
5. Principles of HACCP and prerequisite programs
6. Good Manufacturing Practices (GMP)
7. Standard Operating Procedures (SOPs)
8. Workplace security risk factors, e.g. facility location, visitor policy
9. Food Safety Management System

Variables, Range of Context

1. Structure of organization
2. Corporate culture
3. Availability of independent resources for testing

Glossary

- **Critical Control Point (CCP):** a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level.
- **Critical limit:** a criterion that separates acceptability from unacceptability.
- **Hazardous Analysis Critical Control (HACCP):** a system that identifies, evaluates and controls hazards which are significant for food safety.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

A. Food Safety Management System

A3. Implement Food Safety Management System

A.3.1 Communicate food safety management systems to management staff
A.3.2 Review and validate food safety management system
A.3.3 Update program documentation
A.3.4 Communicate details of food safety management system to production staff
A.3.5 Monitor and verify food safety programs and tasks are being completed as required

Job Competency

A.3.1 Communicate food safety management systems to management staff

Reference Number: 2876

Purpose of the Task

Communicating the details of the food safety systems to management and staff is an important part of implementing the system.

Performance

1. Arrange meetings with management and staff
2. Present the food safety system
3. Inform key personnel of:
   - Standard Operating Procedures (SOPs)
   - roles and responsibilities associated with the food safety program
   - training available
   - implementation time frame
4. Obtain commitment from management and staff to meet or exceed requirements, e.g. resources, budget
5. Keep management and staff up to date on changes to program and additional requirements, e.g. email, memos, meetings

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Applicable regulations
5. Audit requirements
6. Customer specifications
7. All elements of the food safety system
8. Key personnel and their roles
9. Training options or materials available
10. Company organizational chart
11. Company culture

Variables, Range of Context

1. Language barriers
2. Time frame
3. Size of company
4. Shift work/schedules
5. Seasonality of business

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

A.3.2 Review and validate food safety management system

Reference Number: 2878

Purpose of the Task

Reviewing and validating the food safety system periodically is important to ensure it is up to date and meeting needs.

Performance

1. Follow schedule to review food safety system
2. Gather information about the system, e.g. from management, staff, key personnel
3. Review all elements of the food safety system, including:
   - process flows
   - plant schematic
   - requirements and SOPs
   - programs, policies and procedures
   - statistical process control
4. Identify changes needed
5. Revise program and documentation
6. Conduct validation activities, for example:
   - run product tests
   - conduct environmental tests, e.g. swabbing
   - conduct peer reviews
   - check references for standards and limits
7. Obtain approvals as required

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Food safety system
5. Operational processes

Variables, Range of Context

1. Different food safety system requirements
2. Approval requirements

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.3.3 Update program documentation

Reference Number: 2879

Purpose of the Task

Updating program documentation is an important part of implementing the food safety system and keeping it current.

Performance

1. Review documentation as per schedule, e.g. flow diagrams, schematics, SOPs,
2. Determine if documentation meets needs, such as changes in process, ease of use, for example:
   - who uses the information
   - how it is used
   - if required information is being collected
   - is collection of information specified in procedure?
   - is there a record for each activity?
   - are records retrievable?
   - are records secure?
3. Identify events/triggers that signal the need for development or revision to documentation, for example:
   - regulatory changes
   - new products, equipment or personnel
   - audit findings
   - inspection reports
   - trends
   - complaints or recalls
   - new suppliers, ingredients or packaging
   - changes in technology
   - pathogens of concern
4. Ask management and staff for input into document design and content
5. Revise documentation to meet needs:
   - obtain approvals as required

Knowledge

1. Good Manufacturing Practices (GMP)
2. Lean Manufacturing
3. Standard Operating Procedures (SOPs)
4. Document control system
5. Food safety management system
6. Recordkeeping system
7. Organization's approval process
8. Regulations
9. Audit requirements
10. Customer expectations
11. Operational processes

Variables, Range of Context

1. Management and staff turnover
2. Lack of management commitment or resources
3. Seasonal production
4. Shifts and schedules

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X	X			

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.3.4 Communicate details of food safety management system to production staff

Reference Number: 3230

Purpose of the Task

Communicating the details of the food safety system relevant to production staff roles and responsibilities is an important part of system implementation. Supervisors often serve as a liaison between food safety personnel and production staff to ensure understanding and compliance with the food safety management system.

Performance

1. Present relevant food safety system components to direct reports, e.g., meetings, bulletins, presentations, demonstrations
2. Inform production personnel of:
   - standard operating procedures
   - roles and responsibilities associated with the food safety system
   - new and/or updated training available
3. Keep production staff up-to-date on changes to program and additional requirements, e.g. email, memos, meetings:
   - determine need for additional training

Knowledge

1. Good Manufacturing Practices (GMP)
2. Standard Operating Procedures (SOPs)
3. Applicable regulations
4. Customer specifications
5. Elements of the food safety system impacting production, i.e. relevant changes
6. Key personnel and their roles
7. Training options or materials available
8. Organizational structure
9. Company culture

Variables, Range of Context

1. Language barriers
2. Time frame
3. Size of company
4. Shift work/schedules
5. Seasonality of business

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Job Competency

A.3.5 Monitor and verify food safety programs and tasks are being completed as required

Reference Number: 3455

Purpose of the Task

Monitoring and verifying that the tasks are performed as required are essential for implementing the food safety system.

Performance

1. Complete the schedule of monitoring and verification tasks:
   - review the schedule daily
2. Interact with employees on a consistent/frequent basis, e.g. on the floor, on the phone, in the office
3. Confirm employee understanding and knowledge by asking, for example:
   - what the tasks are
   - when to perform the tasks
   - why perform the tasks
   - how to complete the tasks
4. Observe and interview employees to verify their understanding and knowledge of the tasks, including deviations, corrective actions, limits
5. Review production records and other relevant documentation to ensure it is complete, e.g., deviations and anomalies are recorded, issues are corrected, follow-up completed
6. Compare production results to the expectations and identify gaps, for example:
   - review existing results
   - compare results to benchmark data/expectations
7. Complete reports as required
8. Review records to analyze trends

Knowledge

1. Good Manufacturing Practices (GMP)
2. Standard Operating Procedures (SOPs)
3. Food safety Systems and SOPs
4. Internal audit procedures
5. Production and processing activities
6. Operation processes
7. Production information and documentation
8. Equipment operations
9. Applicable regulations
10. Audit requirements
11. Industry best practices
12. Customer expectations

Variables, Range of Context

1. Food and beverage products
2. Shifts/work schedules
3. Seasonality
4. The industry event, e.g. recalls, communicable diseases

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

A. Food Safety Management System

A4. Comply with Food Safety Management System

A.4.1 Comply with food safety management system

Job Competency

A.4.1 Comply with food safety management system

Reference Number: 2880

Purpose of the Task

Following the food safety management system is important to ensure the protection of employees and customers. Failure to comply can have serious consequences, including product that can cause illness and death in the general public.

Performance

1. Participate in annual food safety management system training
2. Maintain personal hygiene, including:
   - wash hands frequently
   - use hair nets
   - wear clean clothing
3. Ensure workplace is clean and sanitized, as required
4. Use safe product handling practices
5. Identify hazards associated with products being handled
6. Take corrective action when deviations occur
7. Report:
   - unsafe/unsanitary conditions
   - illness or injury that could impact food safety

Knowledge

1. Organizational policies and procedures
2. Organization's food safety management system, e.g. process flow diagram
3. Products and intended uses
4. Critical control points (CCPs), where applicable
5. Effects of incorrect temperature on product, e.g. freezer burn, bacteria growth
6. Common foodborne illnesses transmissible by humans

Variables, Range of Context

1. Species-related hazards
2. Potential for Cross-contamination issues

Glossary

- **Critical Control Point (CCP):** Specific point, procedure, or step in food manufacturing at which control can be exercised to reduce, eliminate, or prevent the possibility of a food safety hazard.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				

Importance

Extremely Important	Very Important	Important
X		

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

A. Food Safety Management System

A5. Manage Audits

A.5.1 Prepare for audits
A.5.2 Participate in audits

Job Competency

A.5.1 Prepare for audits

Reference Number: 2883

Purpose of the Task

Collecting, reviewing, interpreting and assessing food processing records and documentation are critical steps in preparing for audits.

Performance

1. Review documentation:
   - interpret audit standards
   - compare processing records and documentation to audit standards
   - identify gaps and/or inadequate controls
   - verify that documents have been completed correctly
2. Conduct pre-audit inspection of facility:
   - schedule walk through with key personnel: - ensure pre-audit is scheduled in advance of the audit to allow time to address deviations and re-train employees, if required
   - observe operations and conditions to identify deficiencies
   - generate work orders or corrective action to address deficiencies
   - identify food safety issue trends and concerns on production line, e.g. recurrent issues on the line
   - ensure appropriate follow up
   - review safety audit checklists
   - implement work orders or corrective actions
   - verify that corrective actions have been implemented and changes have been made
3. Review audit process with employees:
   - ask employees to describe tasks, e.g. when, why and how they are performed
   - ask employees to demonstrate tasks, including deviations, corrective actions, limits - provide coaching, if required
   - explain what the auditor will be looking for, e.g. expected outcome
   - provide encouragement and reassurance
4. Organize mock audits with QA team:
   - discuss identified trends during mock audit
5. Organize audit documentation, if required:
   - verify location of required audit document, e.g. paper files
   - access all forms required for production
   - verify accuracy and completeness of documentation

Knowledge

1. Applicable audit standards
2. Good Manufacturing Practices (GMP)
3. Standard Operating Procedures (SOPs)
4. Plant schematic and process flow
5. Company/organization's quality management system and structure
6. Record management processes
7. Mock audit processes

Variables, Range of Context

1. Type of audit, e.g. internal, external, regulatory, spot
2. Size of company
3. Level of regulation

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

Job Competency

A.5.2 Participate in audits

Reference Number: 2884

Purpose of the Task

Participating in audits, whether internal, external, regulatory or third party-initiated, is an important part of managing audits.

Performance

1. Review quality program:
   - participate in opening meeting with food safety team, including quality assurance, occupational health and safety, management, human resources
   - review general overview of facility and products, if required
   - confirm audit itinerary
   - review previous audits, if applicable, including non-conformance and corrections to non-conformance issues
   - provide information, e.g. verbal, documentation, as requested
   - collect all required documentation
2. Accompany key personnel on tour of facility:
   - provide information, e.g. verbal, documentation, as requested
   - observe tour
3. Participate in audit summary:
   - participate in closing meeting with key personnel
   - discuss audit findings
   - review written report: - ask questions, as required
   - follow up on non-conformances in a timely manner: - implement corrective action plans
   - document corrective actions
   - submit corrective actions to appropriate certifying body or internal person
   - share corrective actions with employees

Knowledge

1. Good Manufacturing Practices (GMP)
2. Standard Operating Procedures (SOPs)
3. Appropriate audit standards
4. Applicable audit processes, e.g. regulatory, quality compliance
5. Communication skills
6. Analytical and critical thinking skills
7. Company/organization's quality management system and structure

Variables, Range of Context

1. Type of audit, e.g. internal, external, regulatory
2. Size of company
3. Level of regulation
4. Type of industry

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
							X

B. Sales and Client Relations

B1. Maintain Client Relationships

B.1.1 Handle customer concerns or complaints

Job Competency

B.1.1 Handle customer concerns or complaints

Reference Number: 3070

Purpose of the Task

Customer concerns or complaints must be handled in a professional and timely manner in order to maintain customer satisfaction levels. This reflects on the reputation of the organization and ultimately on sales. Following a set process can also reduce stress levels for employees and customers. Management of complaints and concerns is often a collaboration between Sales, Quality Assurance (QA) and production/plant staff.

Performance

1. Listen to customer
2. Acknowledge and respond to concern or complaint as quickly as possible
3. Obtain facts, for example:
   - ask open-ended questions
   - ask for all points of view
   - clarify responsibilities, e.g. identify expiry date
4. Empathize with customer:
   - apologize for inconvenience
   - thank customer for voicing concern
5. Remain impartial:
   - do not argue with customer
   - do not make excuses
   - take concern or complaint seriously but not personally
6. Investigate facts, if necessary
7. Identify possible solutions considering available resources
8. Ask for customer's input
   - discuss input/feedback with QA and production staff
9. Select and follow through on best solution
10. Notify customer of action to be taken
11. Follow up:
    - ensure concern or complaint has been resolved
    - document concern or complaint and action taken
    - take action to prevent similar issues in the future

Knowledge

1. Common concerns and complaints
2. Products and services offered by the organization
3. Levels of decision-making authority within the organization

Variables, Range of Context

1. Authority for decision making will vary across roles and organizations
2. Process for resolving a particular concern or complaint may be very simple or complicated
3. Nature/severity of the concern or complaint

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X	X			

C. Workforce Management

C1. Train Staff

C.1.1 Conduct training
C.1.2 Conduct one-on-one training

Job Competency

C.1.1 Conduct training

Reference Number: 3126

Purpose of the Task

Training sessions help to ensure that all staff are informed, knowledgeable and efficient. Training aims to improve the performance of the organization and to improve customer service levels.

Performance

1. Establish a positive learning environment:
   - put participants at ease
   - consider language requirements for training and arrange for different language delivery if required
2. Follow training session plan:
   - review agenda
   - explain learning objectives
   - ask about expectations:
   - address concerns and misconceptions
   - instruct or demonstrate
   - provide opportunity for practice and feedback
3. Encourage questions and participation throughout the session
4. Ensure participants understand new concepts or can perform new skills:
   - test skills or knowledge
5. Recognize successful completion of training, e.g. present certificates, acknowledge in newsletter
6. Evaluate training program:
   - seek feedback
   - measure impact, e.g. increased sales, fewer injuries, deviations, non-conformities
   - compare results with expectations
7. Follow up on training, for example:
   - complete attendance documentation including duration of training, date, names and sign-offs
   - report on observations
   - respond to feedback
   - revise training session, as necessary
   - update personnel files
   - update employee training plan, e.g. training matrix

Knowledge

1. Labour legislation and relevant collective agreements
2. Performance expectations within the organization

Variables, Range of Context

1. Availability of resources, including funds and time, can affect the performance of this skill
2. Who delivers the training, and whether it is provided in-house or through external agencies, will vary from organization to organization.
3. Language requirements of learners will impact training delivery

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

Job Competency

C.1.2 Conduct one-on-one training

Reference Number: 3246

Purpose of the Task

Conducting one-on-one training helps to ensure that all staff are informed, knowledgeable and efficient. The training aims to improve the performance of the organization and to improve customer service levels.

Performance

1. Establish a positive learning relationship:
   - put participants at ease
   - ask about expectations
2. Instruct and/or demonstrate tasks:
   - provide opportunity for practice and feedback
3. Work with participant
4. Encourage questions and participation
5. Recognize success, e.g. provide praise
6. Evaluate own training skills:
   - seek feedback
7. Follow up on training, as required, for example:
   - monitor employee's progress
   - document training provided

Knowledge

1. Standard Operating Procedures (SOPs)
2. Good Manufacturing Practices (GMPs)
3. Performance expectations within the organization
4. Documentation requirements for training
5. Food safety standards and guidelines
6. Quality management standards and guidelines
7. Management style and culture of the organization

Variables, Range of Context

1. Availability of resources, including funds and time, can affect the performance of this skill
2. Language requirements of learners will impact training delivery

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

D. Record Management

D1. Complete Record Management Tasks

D.1.1 Keep records up-to-date

Job Competency

D.1.1 Keep records up-to-date

Reference Number: 3143

Purpose of the Task

Record management systems need to be adhered to so that data is available to be reported. Data needs to be accurate and accessible because it is the basis for strategic organizational planning.

Performance

1. Identify types of records that must be maintained, for example:
   - Standard Operating Procedures (SOPs)
   - accident/incident reports
   - payroll
   - distribution lists
   - personnel files
   - inventory
   - sales
   - maintenance
   - financial
   - purchasing
   - security
   - licence and insurance
2. Complete records as required, e.g. daily, monthly
3. Ensure information is current and accurate, e.g., dates, calculations, inventory counts
4. File copy using the organizational systems (electronic and/or paper) so it may be accessed when needed
5. Use organizational data back-up systems
6. Distribute records, as required
7. Follow audit schedule to review documents on regular basis
8. Ensure records are secured, when required

Knowledge

1. Labour legislation and relevant collective agreements
2. Other relevant legislation, e.g. Worker's Compensation
3. Policies and procedures of the organization
4. Documentation requirements of insurance providers
5. Documentation requirements of relevant programs, e.g. British Retail Council (BRC), Safe Quality Food (SQF)
6. Requirements for storage of different types of documents, e.g. financial reports

Variables, Range of Context

1. Relevant records will vary with the occupation. For instance, Food Production Supervisors may only be responsible for SOPs, whereas a human resource professional may be responsible for employee files, etc.
2. Technology used in the record management process will vary
3. Lack of equipment or facilities could affect an organization's ability to maintain records effectively
4. Some data in records is required by legislation, and other data is confidential and must be kept secure _ the procedures will vary with the type of data

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

E. Organizational Policies and Procedures

E1. Comply with Legislation/ Regulations

E.1.1 Interact with regulatory agents/inspectors
E.1.2 Liaise with contractors

Job Competency

E.1.1 Interact with regulatory agents/inspectors

Reference Number: 3166

Purpose of the Task

When regulatory agents/inspectors visit the organization, it is imperative that all staff follow appropriate protocols, to ensure that all operations and their practices are transparent to ensure regulatory agents/inspectors can determine compliance with legislation/regulations.

Performance

1. Identify purpose of regulatory agent/inspector's presence, including:
   - regulator and agency being represented, e.g. international federal, provincial
   - purpose of visit, e.g. unscheduled inspection, formal audit
   - scope of visit
2. Interact with regulatory agent/inspector:
   - explain processes and procedures
   - answer questions honestly
   - continue to carry out work as normal
3. Demonstrate tasks, as requested

Knowledge

1. Applicable legislation and regulations for organization, e.g. food safety protocols (SOPs), Canadian Meat inspection Act
2. Organization's functional areas
3. Organization's products, waste materials and processes, e.g. HACCP/food safety program protocols
4. Protocols for inspections/tours and audits
5. Roles and responsibilities of workforce
6. Organization's physical plant layout
7. Meat inspection process, e.g. held table

Variables, Range of Context

1. Size of organization
2. Types of products, e.g. fresh, processed, frozen
3. Number of products
4. Critical inspection points

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Job Competency

E.1.2 Liaise with contractors

Reference Number: 3477

Purpose of the Task

Liaise with contractors to ensure that all operations and practices are transparent to ensure regulations compliance.

Performance

1. Review maintenance or construction plan
2. Identify contractor activities that may impact HACCP systems
3. Arrange company orientation for contractors, e.g., limited access, personal protective equipment (PPE), chemical use, tool management

Knowledge

1. HACCP systems
2. Visitor and contractor policies
3. Contractor's service agreement

Variables, Range of Context

1. Size of organization
2. Types of products, e.g. fresh, processed, frozen
3. Number of products
4. Critical inspection points

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

E. Organizational Policies and Procedures

E2. Comply with Organizational Policies and Procedures

E.2.1 Develop organizational policies
E.2.2 Comply with organizational policies and procedures/SOPs

Job Competency

E.2.1 Develop organizational policies

Reference Number: 3167

Purpose of the Task

In order for an organization to function in compliance with government regulations and in a smooth, orderly, efficient manner, there must be policies in place that can be referenced so employees understand what they are supposed to do and how.

Performance

1. Break down organization into functional areas, e.g. workforce management, payroll, finance, operations
2. Identify development teams, e.g. content developers, writers, reviewers
3. Establish format, content and writing standard:
    - distinguish between policy and procedures, even though there may be a one-to-one relationship
    - use templates to ensure consistency of design and format
    - establish a common vocabulary to ensure consistency of terms
    - establish a documents and records control program:
        - set out a file nomenclature and version control system to prevent confusion and multiple versions from being distributed
        - establish numbering system for policies and corresponding system for procedures to allow for easy updates and revisions
        - establish policies for archiving documents
    - establish structure for documents based on logical, user-friendly format, for example, categories such as:
        - Human Resources
        - Administration
        - Occupational Health and Safety
        - Emergency Response
        - Financial Management
        - Facilities and Maintenance
        - Health Plan
4. Establish development process, for example:
    - establish scope, e.g. functions/tasks being covered
    - write content to create drafts
    - reviews of draft content
    - edit, to ensure consistency across all sections
    - obtain approval by management and Board of Directors
5. Review applicable federal, provincial/territorial, and municipal legislation and regulations
6. Review international regulations and trade agreements, applicable to, for example:
    - type of product being imported/exported
    - countries/jurisdictions involved
7. Review Good Manufacturing Practices:
    - consider applications based on:
        - type of product being produced
        - level of automation
8. Review Lean Manufacturing Principles:
    - consider applications, based on, for example:
        - plant design
        - type of product being produced
        - suppliers' capabilities
        - levels of automation
9. Develop policies for each functional area of the organization:
    - ensure policies meet or exceed applicable federal, provincial/territorial, and municipal legislation and regulations
    - ensure applicable international trade regulations are specified
    - integrate applicable Good Manufacturing Practices and Lean Manufacturing Principles
10. Publish in established format:
    - ensure format allows for updates, revision and expansion
    - ensure materials are replenished, as necessary

11. Distribute and communicate policies to employees
12. Keep policies up to date:
    - schedule annual review
    - be responsive to changes in legislation and regulations
    - update as an outcome of incidents, e.g. accidents, recalls
    - update when business activities, product or plant change, e.g. production of new products, plant expansions, international buyers or suppliers
13. Archive records according to document and records control program
14. Bring updates to the attention of employees, e.g. through staff meetings, memos, digital communication system

Knowledge

1. Difference between policy and procedure
2. Document development processes
3. Document design
4. Applicable regulations for organization, i.e. federal, provincial/territorial, municipal
5. Organization's functional areas
6. Good Manufacturing Practices
7. Lean Manufacturing Principles
8. Roles and responsibilities of workforce
9. Numbers and expertise of personnel
10. Organization's physical plant layout
11. Past regulatory issues
12. Suppliers and their capabilities and capacity
13. Storage requirements
14. Critical supplies

Variables, Range of Context

1. Size of organization
2. Types of products, e.g. fresh, processed, frozen
3. Number of products
4. Level of automation
5. Size and configuration of plant
6. Suppliers' capabilities and capacity

Glossary

- Policy _ a written statement that clearly indicates the position and values of the organization on a specific topic. It contains rules and stipulates what to do.
- Standard Operating Procedures (SOPs) _a written set of instructions that describes how to perform the required steps for a particular task or sequence of tasks.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
	X		X		X	

Job Competency

E.2.2 Comply with organizational policies and procedures/SOPs

Reference Number: 3170

Purpose of the Task

Personnel must actively engage in policy and SOP compliance in order to ensure quality assurance and food safety, as well as ensuring safety legislation and company key performance indicators are met.

Performance

1. Review organization's policies and SOPs handbook
2. Participate in orientation as a new hire
3. Take advantage of on-the-job training opportunities
4. Complete all tasks according to policies/SOPs
5. Communicate with supervisor regularly regarding new and updated SOPs:
    - ensure SOP being applied is most recent version
6. Provide feedback on current policies/SOPs:
    - identify challenges with compliance
    - put forward ideas for revisions that to procedures still comply with policy

Knowledge

1. Difference between a policy and a procedure (SOPs)
2. Applicable policies and SOPs for work area
3. Importance of compliance
4. Own role and responsibilities and those of others, e.g. supervisor, apprentices

Variables, Range of Context

1. Size of organization
2. Roles and responsibilities of personnel
3. Complexity of production (may require more SOPs)
4. Level of automation

Glossary

- **Policy:** A written statement that clearly indicated the position and values of the organization on a specific topic. It contains rules and stipulates what to do.
- **Standard Operating Procedure (SOP):** A written set of instruction that describes how to perform the required steps for a particular task or sequence of tasks.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
	X	X				

F. Leadership

F1. Provide Leadership

F.1.1 Delegate tasks

Job Competency

F.1.1 Delegate tasks

Reference Number: 3175

Purpose of the Task

Delegating tasks helps to manage time and the team efficiently, it allows for the simultaneous performance of multiple tasks, and provides controlled/safe opportunities for staff to take on more responsibility and/or develop new competencies.

Performance

1. Determine which tasks and responsibility can be delegated, considering, for example:
    - risk level, i.e. consequences of not completing task or of not completing task correctly
    - task frequency, i.e. does task re-occur
    - opportunity for mentoring
    - whether monitoring of task performance is required
    - suitability of task to be delegated
2. Choose employees best suited or trained to perform task considering:
    - consider employees' capabilities and limitations
    - consider employees' availability and workload
3. Confirm employees' understanding of task:
    - intent, purpose, and content of task
    - deadlines and desired results
4. Set schedule based on needs of organization, e.g. desired results, time or date for task completion
5. Monitor employees' progress, e.g. provide feedback, offer suggestions
6. Provide support to employees as required
    - if roadblocks are encountered, provide assistance to enhance performance
7. Ensure task is completed as required:
    - recognize successful completion of task, e.g. thank employee
    - follow up as needed, e.g. provide coaching, re-assign task
8. Document employees' performance
9. Confirm employees' willingness to accept additional responsibility

Knowledge

1. Delegation techniques, for example:
    - SMARTER:
        - specific
        - measurable
        - agreed on
        - realistic
        - time-bound
        - ethical
        - recorded
        - delegation checklists
2. Levels of delegation, e.g. assess and report findings; assess, analyze and make recommendations.
3. Staff person's capabilities and limitations
4. Accountability and responsibility
5. Current work practices, processes and products
6. Regulations
7. Communication skills
8. Appropriate opportunities for delegating, e.g. lower risk, less critical tasks

Variables, Range of Context

1. Size of organization
2. Formal or informal employee mentoring programs
3. Union or non-union work environment
4. Staff empowerment

5. Leadership capacity of person delegating tasks

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			X

F. Leadership

F2. Demonstrate Professionalism

F.2.1 Facilitate collaboration of work teams
F.2.2 Collaborate with team members
F.2.3 Develop professionally
F.2.4 Exhibit professional and ethical conduct
F.2.5 Mentor/coach others
F.2.6 Manage own stress
F.2.7 Manage time
F.2.8 Contribute to a solution-focused workplace
F.2.9 Collaborate with external organizations/agencies

Job Competency

F.2.1 Facilitate collaboration of work teams

Reference Number: 3380

Purpose of the Task

The success of an organization often depends on how well its team members work together. Effective team leaders demonstrate leadership through facilitating the collaboration of the work teams that they are responsible for. This builds engagement in the processes and products, as well as the capacity to proactively identify issues and address them. Research has shown that work teams that are collaborative are exponentially more productive because they are focused on common goals.

Performance

1. Identify own leadership style and tendencies
2. Identify roles and responsibilities of team members:
   - be aware of strengths/weaknesses of team members
3. Build teams of individuals with complementary skill sets, when possible
4. Establish ground rules and team norms through discussion:
   - respect inclusion and diversity
5. Address signs of stress in the group, for example:
   - hold support meetings
   - discuss ideas for reducing stress with team
   - conduct team building events
6. Build cohesion in the group, including:
   - identify goal(s) or common cause
   - encourage innovation, e.g. brainstorm ideas/solutions, promote open-minded environment
7. Communicate with individual team members regularly, including
   - expectations
   - progress
   - issues and concerns
8. Lead team meetings, as required:
   - ensure all team members have opportunity to contribute
9. Facilitate consensus within the group, when necessary:
   - encourage sharing of information and ideas
   - encourage discussion
   - ensure that everyone can agree on next step
10. Respond to questions and requests in a timely manner
11. Honour promises made to the team
12. Celebrate team successes, e.g. hold pizza party when team exceeds targets, use rewards available through organization such as coffee gift cards
13. Document team's progress or ensure progress is documented, as required

Knowledge

1. Organization's mission statement, goals, structure, and roles and responsibilities within it
2. Level of authority to address issues and solve problems
3. Organization's policies and procedures
4. Characteristics of teams
5. Roles that individuals play within teams
6. Importance of trust in building teams
7. Stages of team development, e.g. forming, storming
8. Barriers/challenges to collaboration

Variables, Range of Context

1. Position of individual in organizational structure and level of authority
2. Types of work teams, e.g. temporary project team, permanent work team

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Job Competency

F.2.2 Collaborate with team members

Reference Number: 3180

Purpose of the Task

Collaboration is often a crucial part of a business, as it is often necessary for colleagues to work well together, trying their best in any circumstance. Collaboration means that people will try to cooperate, using their individual skills and providing constructive feedback, despite any personal conflict between individuals to achieve the goals of the team and ultimately the mission of the organization. "Team" refers not only to a small work group, but to the organization as a whole.

Performance

1. Support others:
   - share knowledge with others
   - provide feedback in a constructive, timely and professional manner
   - be receptive to other's opinions
   - respect individual differences, e.g. strengths and limitations, cultural differences, language requirements, physical needs and limitations
2. Collaborate with representatives from other functional areas of organization, e.g. maintenance, quality control:
   - share expertise, information and resources
   - work together on broader organizational objectives
3. Work together to achieve goals and resolve issues:
   - actively participate in team activities, e.g. contribute ideas, carry out tasks
   - share credit and recognition for achievements
   - resolve inconsistencies and errors together
4. Identify ways to continuously improve own collaboration skills:
   - reflect on successes and challenges

Knowledge

1. Purpose/goal of team
2. Mission statement and values of organization
3. Benefits of teamwork
4. Strengths and limitations of self and other team members
5. Team dynamics
6. Other teams in organization
7. Relationships between different functional areas of the organization
8. Level of personal authority to address issues and solve problems

Variables, Range of Context

1. Size of organization
2. Management style of organization
3. Union or non-union work environment
4. Empowerment of employees
5. Level of team member engagement

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Job Competency

F.2.3 Develop professionally

Reference Number: 3181

Purpose of the Task

In order to advance in one's career, prevent skills obsolescence, improve knowledge and skills, it is critical to take advantage of development opportunities and make time to keep up with advances in the industry. Organizations support professional development of their employees for succession planning, to maximize the skills and knowledge of their personnel and to develop/maintain a competitive edge.

Performance

1. Recognize ongoing need for professional development:
   - review personal skill set
   - identify personal short- and long-term training needs
   - assess current and future professional development needs
   - assess current trends and best practices
2. Engage in formal and in-formal training and development activities, for example:
   - research professional development opportunities
   - enroll in educational and professional seminars, courses, workshops and certification programs
   - participate in mentorship programs
   - volunteer
   - read industry publications
   - participate in local trade and business organizations
   - network with industry members
3. Access organizational support, e.g. time off, reimbursement of course fees
4. Assess the effectiveness of development activities
5. Review and update professional development goals

Knowledge

1. Professional goals
2. Trade and business organizations
3. Organizational support for professional development, e.g. time off, course fees
4. Available educational and professional seminars, courses, workshops and certification programs

Variables, Range of Context

1. Organizational support
2. Personal assessment
3. Union or non-union work environment
4. Position and role of individual

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

F.2.4 Exhibit professional and ethical conduct

Reference Number: 3182

Purpose of the Task

Professional and ethical conduct promotes a positive image of the industry, organization, brand and oneself and helps to earn the respect of stakeholders, including peers. Being professional also helps to create a positive work environment and sets an example for others.

Performance

1. Represent organization's mission, vision, and values through professional conduct
2. Demonstrate professional characteristics, for example:
   - courtesy
   - dedication
   - integrity
   - efficiency
   - enthusiasm
   - fairness
   - flexibility
   - objectivity
   - trustworthiness
   - curiosity
   - Initiative
   - creativite
3. Set example for co-workers, colleagues and industry
4. Comply with business standards, policies and procedures
5. Comply with organization's Code of Ethics, if applicable
6. Maintain confidentiality
7. Respect diversity
   - monitor personal biases
8. Respect co-workers, colleagues, customers and competitors

Knowledge

1. Organization's code of conduct and expectations
2. Ethical principles
3. Organization's code of ethics
4. Stereotypes (e.g. cultural, racial, sexual, gender) and their impact on the workplace
5. Personal biases
6. Level of authority

Variables, Range of Context

1. Organizational expectations
2. Position of individual in organizational structure

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

F.2.5 Mentor/coach others

Reference Number: 3183

Purpose of the Task

Mentoring and coaching are important tools for an organization to develop its labour pool to meet short- and long-term needs such as succession planning or labour retention issues.

Performance

1. Create a work environment that contributes to employee development, for example:
   - offer advice according to employees' professional ambitions
   - recognize opportunities to coach or mentor employees
   - arrange for professional development activities, if possible
   - provide on-the-job training
   - establish formal mentoring program
2. Provide support to peers and team members when needed:
   - establish work relationship with employees - agree on parameters of relationship, e.g. confidentiality
   - provide information on ways to develop their careers, e.g. books, industry journals, online resources, courses
   - actively listen to employees
   - ask probing questions
   - encourage employees to explore issues
3. Inform peers or team members of career paths within the industry
4. Assist others in working through issues or conflict situation
5. Identify situation or problem that needs to be solved:
   - encourage employees to generate solutions themselves: - do not criticize - do not draw conclusions for employees
   - involve employees in learning process: - ask questions - ask which alternative is likely to work
6. Break larger tasks into smaller learning activities:
   - encourage and guide employees through specific tasks until goals are achieved

Knowledge

1. Differences between coaching and mentoring
2. Situations requiring coaching, for example:
   - to cross train employees to prevent production losses
   - when employees are not meeting expectations
   - when company is introducing new system or program
   - when organization has small of individuals requiring greater competency in a specific skill
3. Situations requiring mentoring, for example:
   - when organization is seeking to develop a talent pool as part of succession planning
   - when company seeks to diversify employees to remove barriers to success
   - when organization seeks to develop employees over and above the specific tasks, e.g. leadership
   - when an organization seeks to retain internal expertise of older employees
4. Communication techniques
5. Roles of a mentor or a coach
6. Succession plans

Variables, Range of Context

1. Formal or informal mentoring program
2. Management style of organization
3. Union or non-union work environment
4. Empowerment of employees
5. Level of stakeholder engagement
6. Reason for coaching or mentoring
7. Tools used to assess coaching or mentoring needs

Glossary

- **Stakeholder:** anyone that can be affected by a company's actions, objectives, and policies. This includes both internal stakeholders, such as employees and managers, and external stakeholders, such as shareholders, suppliers, customers, surrounding communities, creditors, government representatives, etc.
- **Mentoring:** an ongoing formal/informal relationship of a more senior, experienced person within the organization providing support and guidance to younger employees. Often a means to pass on knowledge and experience and open doors for younger employees.
- **Coaching:** a short-term relationship with employees for the development of specific skills or competencies.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			X

Job Competency

F.2.6 Manage own stress

Reference Number: 3184

Purpose of the Task

Strategies to manage one's own stress are important to ensuring sustained, healthy employment. These strategies prevent burnout and employee turnover. It is important to be realistic about what one person can reasonably take on in terms of workload and timelines

Performance

1. Attend to own personal, physical, emotional and spiritual needs
2. Maintain a sense of humour
3. Establish a comfortable work environment
4. Practice being flexible and adaptable to new situations, e.g. demonstrate calm approach
5. Take action to reduce stress, e.g. balance home and work life, set realistic goals, engage in hobbies
6. Ask for assistance when needed

Knowledge

1. Personal limitations
2. Personal stress indicators and triggers
3. How own stress and attitude affects others
4. When and how to say "no"

Variables, Range of Context

1. Personality types
2. Corporate culture
3. Union or non-union work environment
4. Position and role of individual

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

F.2.7 Manage time

Reference Number: 3185

Purpose of the Task

Time management is critical to effective and efficient achievement of goals. Managing time is one of the skills used to ensure the timely accomplishment of tasks; undue delays in meeting deadlines; and to ensure all tasks get the time and attention they require.

Performance

1. Set achievable short- and long-term objectives
2. Develop action plan, break down task into manageable steps
3. Prioritize tasks:
   - set priorities
   - manage conflicting priorities
4. Estimate time requirements
5. Schedule tasks:
   - use time management tools and software applications, e.g. activity logs, to-do lists, action plans
6. Monitor progress against projections:
   - adjust schedule if necessary
   - delegate some tasks, if applicable
7. Keep motivated:
   - minimize distractions
   - compensate for personal style, e.g. procrastination, avoidance, perfectionist
8. Keep organized, i.e. reduce wasted time looking for materials, keep files organized

Knowledge

1. Time management techniques, e.g. time allocation, prioritizing
2. Organization's plans and scheduling
3. Time management tools, e.g. critical paths
4. New equipment and tools that can save time

Variables, Range of Context

1. Complexity and size of projects
2. Interdependence with other personnel's work
3. Union or non-union work environment
4. Position and role of individual
5. Authority to manage own workload will vary by organization

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

F.2.8 Contribute to a solution-focused workplace

Reference Number: 3267

Purpose of the Task

Being able to adjust to new situations and technology, identify risks and solve problems are critical skills in the current workplace and the workplace of the future. Organizations that foster a solution-focused workplace are more efficient, experience fewer operational issues, and are able to quickly adjust to shifting customer requirements.

Performance

1. Ask questions regarding requirements and expectations
2. Identify signs of potential risk to the operation or product(s)
3. Identify signs of potential customer issues or dissatisfaction
4. Identify issues that have the potential to cause conflict within the team or organization
5. Take initiative to solve common problems:
    - enact solutions that have been successfully used in the past
6. Communicate signs of potential risk and potential solutions to appropriate individuals, e.g. supervisor, co-workers, managers:
    - describe issues and problems clearly and concisely
    - outline potential solutions and the rationale behind them
    - use questions to generate discussion
    - respect others' input and opinions
7. Work together to solve issues and problems:
    - be open to different approaches
    - ensure roles and responsibilities to enact solution are clear
8. Address conflict as it happens:
    - respect others' viewpoints
    - communicate directly but courteously
    - report abusive behaviour
9. Keep focused on positive outcomes:
    - redirect negative comments or discussion
10. Reflect on the process and solution:
    - make suggestions for continuous improvement
11. Celebrate successes:
    - recognize those who have contributed to the problem-solving process, e.g. acknowledge publicly, thank privately

Knowledge

1. Organization's structure, roles and responsibilities within it
2. Level of authority to address issues and solve problems
3. Organization's policies and procedures
4. Ethical principles
5. Cultural sensitivity
6. Organization's code of ethics
7. Industry trends and technology

Variables, Range of Context

1. Organizational expectations and culture
2. Position of individual in organizational structure
3. Types of issues and problems

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Job Competency

F.2.9 Collaborate with external organizations/agencies

Reference Number: 3454

Purpose of the Task

Collaborating with external agencies/organizations is often a crucial part of a business. Successful collaboration leads to constructive outcomes for all parties that might not be possible when acting as individual organizations. Collaborating with external agencies/organizations avoids duplication of effort and resources and increases the chances of success in any venture. Examples of external agencies/organizations include government agencies, research institutes, training institutions, equipment manufacturers, other processors and certifying bodies.

Performance

1. Research cooperative opportunities e.g. read about local training institution initiatives, access government agency communique
2. Assess aims and objectives of external agencies/organizations:
   - determine mutual goals
   - determine limitations, e.g. what types of knowledge should be shared or not shared
3. Identify key personnel and representatives of external agencies/organizations, including their roles and responsibilities:
   - establish relationships with key personnel/representatives, if possible, e.g. introduce self
4. Share knowledge and expertise, e.g. participate in roundtables, conferences, and professional organizations [Canadian Institute of Food Science and Technology (CIFST), International Association of Food Protection (IAFP), Institute of Nutrition and Functional Foods/Institut sur la nutrition et les aliments fonctionnels (INAF)]
5. Be receptive to other's opinion
6. Work together on broader objectives, e.g. research and training outcomes:
   - provide a clear rationale for any recommendations
7. Participate in task forces or informal/formal committees, if applicable:
   - actively participate in activities, e.g. contribute ideas, carry out tasks
   - share credit and recognition for achievements
   - resolve inconsistencies and errors together
8. Consider the application of new knowledge to own organization's operations:
   - analyze benefits and risks
   - discuss with other team members and stakeholders
9. Identify ways to continuously improve your own collaboration skills:
   - reflect on successes and challenges

Knowledge

1. Purpose/goals of own organization for collaboration
2. Mission statement and values of the organization
3. Applicable regulations
4. Good Manufacturing Practices (GMP)
5. Standard Operating Procedures (SOPs)
6. Organizational structure, e.g. key personnel and their roles, departments
7. Relevant key personnel and representatives of external agencies/organizations
8. Benefits of Collaboration
9. Strengths and limitations of own and external organizations
10. Relationships between different external organizations/agencies
11. Level of personal authority when representing own organization
12. Trends in food processing

Variables, Range of Context

1. Size of organization
2. Number and types of relevant external organizations/agencies
3. Jurisdiction of agencies/organizations
4. Available funding agreements and requirements

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			X

G. Communications

G1. Communicate Effectively

G.1.1 Use active listening skills
G.1.2 Use speaking skills
G.1.3 Use writing skills
G.1.4 Conduct meetings and presentations
G.1.5 Manage internal and external communications
G.1.6 Use computers and/or electronic devices

Job Competency

G.1.1 Use active listening skills

Reference Number: 3186

Purpose of the Task

To ensure messages and information are understood and to prevent misunderstandings that could result in costly errors.

Performance

1. Assess situation and timing/location of potential conversation
2. Focus complete attention on speaker:
   - be open-minded
   - use attentive body language and verbal cues
   - demonstrate patience, i.e. listen without interruption until message is completed
3. Watch for nonverbal indicators that reinforce or contradict message, e.g. nods
4. Respond to speaker:
   - acknowledge message, e.g. thank speaker
   - offer comments
   - use effective questions to seek additional information or clarify details, e.g. open-ended or closed questions, probing or mirror questions
   - re-word message in paraphrased terms to confirm understanding

Knowledge

1. Questioning techniques
2. Paraphrasing
3. Nonverbal cues, i.e. body language
4. Culturally-sensitive communication styles or practices, e.g. use of humour
5. Appropriate listening environments for various conversations

Variables, Range of Context

1. Barriers to listening, e.g. poor hearing, noisy work environments
2. Interpretations of nonverbal cues, i.e. culturally-determined information
3. Interpreters or translators may be used if the speakers and listeners have different first languages

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

G.1.2 Use speaking skills

Reference Number: 3187

Purpose of the Task

To ensure messages and information are understood and to prevent misunderstandings that could result in costly errors.

Performance

1. Determine appropriate time and place to deliver message, e.g. away from noisy equipment
2. Respect needs and limitations of listeners:
   - recognize cultural differences in communication
   - respect schedule and potential time restrictions
   - anticipate potential emotional responses
3. Organize ideas before speaking
4. Determine appropriate format, e.g. formal, informal, group, individual, telephone
5. Communicate message:
   - speak clearly
   - make eye contact
   - vary tone, volume, pauses, and rate of speech
   - use appropriate language, e.g. do not use slang, jargon, profanity or sarcasm
   - exhibit appropriate non-verbal behaviour
6. Engage listeners by promoting input, e.g. put employee at ease
7. Confirm listener(s)'s understanding:
   - encourage and answer questions
   - watch for nonverbal cues, e.g. questioning looks

Knowledge

1. Purpose of communication
2. Speaking techniques
3. Nonverbal cues, i.e. body language
4. Proper terms for industry/organizational jargon
5. Appropriate delivery of message for situation
6. Culturally-sensitive communication styles and practices

Variables, Range of Context

1. Barriers to listening, e.g. poor hearing, noisy work environments
2. Listeners with special needs, e.g. English as a Second Language (ESL), impaired hearing, foreign language audience members
3. Interpretations of nonverbal cues
4. Personality traits, e.g. shy, soft-spoken, assertive/aggressive
5. Emotional states of listeners
6. Types of messages, e.g. coaching session, training, positive reinforcement, sharing of information
7. Interpreters or translators may be used if the speakers and listeners have different first languages

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

G.1.3 Use writing skills

Reference Number: 3189

Purpose of the Task

Effective written communication skills help to ensure that messages and information are clear and understood by the intended audience. Written information is also a permanent record that can be kept as evidence of discussions, actions and/or results.

Performance

1. Determine purpose of message
2. Use format, tone and style suited to purpose
3. Consider reader's:
   - perceptions
   - reading ability
   - needs
   - technical understanding
   - preferred language
4. Adapt content and structure of material to suit reader(s), as required
5. Ensure handwritten documents are clear and legible
6. Ensure written communication is:
   - well-organized and has logical flow
   - clear and concise

Knowledge

1. Protocol for different writing formats, e.g. incident reports, e-mails, reports
2. Public and internal formats and requirements
3. Grammar, punctuation, spelling and sentence structure
4. Characteristics of readers

Variables, Range of Context

1. Barriers to writing, e.g. English as a Second Language, education
2. Different purposes
3. Informal/formal
4. Formatted documents
5. Writing by hand versus using technology

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
	X	

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

G.1.4 Conduct meetings and presentations

Reference Number: 3190

Purpose of the Task

Meetings and presentations are important for all levels of personnel (operations, supervisory and management) to share information, make decisions and solve problems. From daily tailboard meetings to sales presentations, effective meeting and presentation skills enhance idea sharing and promote positive improvements.

Performance

1. Determine purpose of meeting, for example:
    - introduce policies and procedures
    - discuss safety issues
    - explore and resolve problems
    - organize activities for shift
    - promote teamwork, i.e. recognize achievements
2. Confirm participants/audience:
    - choose date and time based on availability of participants
    - book suitable location
    - consider number of participants and privacy required
3. Develop agenda to outline purpose, goals and objectives
4. Manage meeting/presentation:
    - focus on goals and objectives of meeting
    - facilitate discussion and open dialogue
    - speak clearly
5. Complete appropriate follow-up with participants

Knowledge

1. Purpose of meeting
2. Type of meeting required, e.g. budget/accounting meeting, shift safety meeting
3. Appropriate participants to invite to meeting
4. Roles and responsibilities of participants

Variables, Range of Context

1. Size of organization
2. Scope of meeting
3. Management style of organization
4. Unionized or non-union work environment
5. Roles and responsibilities of participants, managers, supervisors, executive team
6. Internal or external participants, employees, managers, suppliers, clients, shareholders

Glossary

- **STAKEHOLDER:** anyone that can be affected by a company's actions, objectives, and policies. This includes both internal and stakeholders, such as employees and managers, and external stakeholders, such as shareholders, suppliers, customers, surrounding communities, creditors, government representatives, etc.
- **MENTORING:** an ongoing formal/informal relationship of a more senior, experienced person within the organization providing support and guidance to younger employees. Often a means to pass on knowledge, experience, and open doors for younger employees.
- **COACHING:** a short-term relationship with employees for the development of specific skills or competencies.

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
					X	X	

Job Competency

G.1.5 Manage internal and external communications

Reference Number: 3191

Purpose of the Task

All internal and external communications within an organization should follow established strategies and protocols to maintain the security of proprietary information, develop rapport and maintain a level of professionalism and decorum throughout all interactions.

Performance

1. Develop internal and external communication strategies and processes considering, for example:
   - internal and external stakeholder groups
   - potential methods of communication, e.g. phone, text, e-mail
   - types of information to be communicated
   - language requirements
   - communication protocols/hierarchies
2. Implement communication strategies, e.g. allocate resources and time
3. Assess effectiveness of communication strategies:
   - determine metrics to measure effectiveness of communication strategy
   - gather data and analyze results
4. Revise communication strategies as necessary
5. Adhere to and respect communication protocols and levels of authority

Knowledge

1. Communication protocols, internal and external
2. Communication methods, e.g. memorandum, email, newsletter
3. Organizational structure
4. Digital technology
5. Communications security
6. Level of authority

Variables, Range of Context

1. Corporate culture
2. Communication systems
3. Formal vs. informal communication systems
4. Internal vs. external communication

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
		X				X

Importance

Extremely Important	Very Important	Important
		X

Frequency

Continuously	Every hour or more	Hourly	Once per Shift	Once per Day	Once per Week	Once per Month	Once per Year
	X						

Job Competency

G.1.6 Use computers and/or electronic devices

Reference Number: 3479

Purpose of the Task

Computers And/Or Electronic Devices are essential communication tools between an organization and its employees.

Performance

1. Use computer and/or electronic devices for daily operations
2. Follow organization policies and procedures for use
3. Keep up to date with programs and systems

Knowledge

1. Organization computer systems, software and hardware, e.g., O2 readers, radio frequency identification detector (RFID), data loggers
2. Information technology protocols

Level of Complexity | Bloom's Taxonomy

Recall, Remember	Understand	Apply	Analyze	Evaluate	Create, Transform	Autonomy
			X			

GLOSSARY

Accounts receivable aging - Process of determining which customers are paying on time, which are not, and how far they are behind the payment date This analysis assists in estimating bad debts and in establishing credit guidelines

Adductor muscle - The main muscular system in bivalve mollusks, i.e. in clams, scallops, mussels, oysters, etc.

Adenosine-5'-triphosphate (ATP) - is the energy currency of cells (animal, plant, bacteria, yeast, mould)

Aggregate demand - the total amount of product to be produced during a given time frame

Allergen - a substance that through exposure or ingestion can trigger an immune system response resulting in an allergic reaction in some people. Food allergies to eggs, nuts, peanuts, shellfish can trigger a life-threatening anaphylactic shock; less severe allergies can result in intestinal discomfort, such as lactose intolerance, or skin rashes from citrus peel oils

Aquastat - An aquastat is a device used in hydronic heating systems for controlling water temperature. To prevent the boiler from firing too often, aquastats have a high limit temperature and a low limit

Arbitration - a process of settling an argument or disagreement in which the people or groups on both sides present their opinions and ideas to a third person or group

Artificial demand - is created when an end use is supplied air pressure higher than required for the application

Aseptic packaging - Process in which a food product, such as ultra high temperature (UHT) milk) and its package are sterilized separately and then combined and sealed under sterilized atmosphere.

Atomization - separation of substance into fine particles; in the case of spray dryers, heated milk concentrate is subjected to pressure and pushed through a small nozzle that disperses the liquid in a spray of fine particles

ATP Test - a process of rapidly measuring actively growing microorganisms through detection of adenosine triphosphate, or ATP

Auger - a device with a helical shaft used for moving loose material

Autoclave - a large piece of equipment that uses heat and steam and/or water to batch sterilize containers of food in a process also referred to as retorting. This process extends the shelf life of food by destroying microorganisms and inactivating food enzymes. Process can be applied to a wide range of containers including cans, glass jars, pouches.

Bacterial cultures - live non-toxic, beneficial bacteria, yeasts and moulds used to carry out the fermentation process in food production. Specific bacteria are used in different food mediums to create the specific fermented foods, for example yogurt, cheese, beer, wine

Bactofugate - milk solids and undesired microorganisms that collect on discs of bactofuge, also referred to as sludge

Bactofugation - the use of a centrifugal force to remove the microorganisms, especially spores that are heat resistant from milk; equipment is like a milk separator, but specifically designed to remove microorganisms

Bag filter - equipment used in milk and whey powder production to separate and collect powder from the air streams of spray dryers

Bar codes - machine-readable codes on goods used to validate transactions, determine inventory levels, verify bills of lading, etc. They are often used with electronic data interchange

Barnacle - A marine crustacean with an external shell, which attaches itself permanently to a variety of surfaces, like crab shells.

Batch processing - the performing of an industrial process on material in batches of a limited quantity or number

Beneficiary - The person to whom the insurer must pay none if damaged to or loss of the goods occurs Bill of Lading

Bill of Lading - The primary trade transport document required to ensure the security of goods shipped by an exporter It serves as 1) the carrier's receipt to the shipper that the goods have been received for shipment, 2) a memorandum of the terms and conditions of the contract between the carrier and the

shipper for the transportation of the goods to a specified destination, and 3) evidence of title to the goods A B/L may be negotiable or non-negotiable; various types include air bill, ocean bill, highway bill and rail waybill (see Clean, Order, Straight, Unclean bills of lading) When sent to a foreign bank as part of a sight draft, the bank is authorized to release the B/L (which represents the title to the goods) to the buyer only when payment has been received from the buyer

Biosolids - are a solid product from sewage treatment processes and have been treated in a way to make them safe for further use

Blanching - process where a product, like lobster, is scaled in boiling water, removed after a brief, timed interval and the transferred into iced water or halt the process. Lobster is not considered cooked after blanching

Blowdown - Boiler blowdown is water intentionally wasted from a boiler to avoid concentration of impurities during continuing evaporation of steam The water is blown out of the boiler with some force by steam pressure within the boiler Bottom blowdown used with early boilers caused abrupt downward adjustment of boiler water level and was customarily expelled downward to avoid the safety hazard of showering hot water on nearby individuals

Brand equity - the amount of money that customers are willing to pay just because it's an organization's brand

Brine, to - to soak or saturate a product, like lobster meat, with salty water

Buffer stock - inventory that is established to ensure supply while stock levels are being replenished

Butter - a water-in-oil emulsion made up from cream (milk fat)

Bylined articles - can be any length, and they tend to based on opinion. They articulate views and opinions that are clearly the writer's own, without requiring objectivity

Byssal hair - The bundle of filaments that are secreted by mussels to help them attach to a solid surface, like other mussels or mussel socks. Also known as the mussel 'beard.'

Calibration - includes measures taken to ensure that an instrument is accurate by adjusting to a known standard. If instrument measurement has an impact on food safety, it must be included in a calibration

program

Carcinogen - any substance or agent that tends to produce a cancer

Carrier - any person or company, which, under a contract of carriage, undertakes to perform or procure the carriage agree to by rail, road, sea, air, inland waterway, or by a combination of such modes

Carriers - the materials that form the base or vehicle for the food being tested and can more broadly refer to any other food that accompanies the one being tested so they are ingested too

Casein - protein found in milk, a nutritional component of milk and associated products made from milk

Cash flow - Incomings and outgoings of cash, representing the operating activities of an organization In accounting, cash flow is the difference in amount of cash available at the beginning of a period (opening balance) and the amount at the end of that period (closing balance)

Casing - natural, clean, sanitized intestine skin of sheep, or hogs, or man-made materials that are used to hold stuffings, usually ground meats for sausages or other similar products

Challenge testing - A test that simulates what happens to a product during processing, distribution and subsequent preparation and handling should it become contaminated, to determine if the organisms would present a potential health hazard or spoilage risk

Changeover time - period required to prepare a device, machine, process or system to change from producing the last good/product of the batch to producing the first good piece of the new batch. A changeover is different than a set-up, although a changeover can include a set-up

CIP/Clean-in-Place - a method of cleaning the interior surfaces of pipes, vessels, process equipment, filters and associated fittings, without disassembly

Class I Recall - is a situation in which there is a reasonable probability that the use of, or exposure to, a violative product will cause serious adverse health consequences or death

Class II Recall - is a situation in which the use of, or exposure to, a violative product may cause temporary adverse health consequences or where the probability of serious adverse health consequences is remote Class III Recall

Class III Recall - is a situation in which the use of, or exposure to, a violative product is not likely to cause

any adverse health consequences

Cleaning - Cleaning is the removal of unwanted material (commonly called soils) from production equipment and production areas Removing leftover particles eliminates many microbes, their food source and other physical debris that can contaminate future batches of food Appropriate cleaning chemicals may be applied manually or mechanically to equipment that remains assembled (clean-in-place) or that is partially or fully disassembled (clean-out-of-place) Most often, a combination of methods is used

Clean-in-place (CIP) - a method of cleaning the interior surfaces of pipes, vessels, process equipment, filters and associated fittings, without disassembly

Cloaca - A common cavity at the end of the digestive tract (poultry)

Coaching - a short-term relationship with employees for the development of specific skills or competencies

Coagulation or curdling - the process where suspended solids in fluid, under certain conditions are attracted together and separate from the fluid. In the case of milk, under specific conditions and specific additives, the milk protein casein, clots or thickens separating from the fluid in milk called whey

Coagulum - the mass of solids that forms under specific conditions

Code of Ethics - a document outlining the mission and values of the business or organization, how professionals are supposed to approach problems, the ethical principles based on the organization's core values and the standards to which the professional will be held

Cold claws - Process of picking/shucking lobster claws that have been cooled after being cooked

Collective agreement - a written contract of employment covering a group of employees who are represented by a trade union. This agreement contains provisions governing the terms and conditions of employment It also contains the rights, privileges and duties of the employer, the trade union and the employees

Commissioning - Process by which an equipment, facility, or plant (which is installed, or is complete or near completion) is tested to verify if it functions according to its design objectives or specifications

Compensation package - Sum of direct benefits (such as salary, allowances, bonus, commission) and indirect benefits (such as insurance, pension plans, vacations) that an employee receives from an employer

Complaints - consumer complaints about product

Consignee - Also known as the importer, or buyer, this is the individual or company to whom the goods are shipped

Consignor - see shipper

Consumer panel - is selected from the public according to the demographics necessary to test the product

Contact systems - the process where compressed air is used as a part of the production and processing including packaging and transportation of safe food production

Contamination - introduction or occurrence of an unwanted organism, taint or substance to packaging, food or the food environment. Contamination includes physical, chemical, biological and allergen contamination

Contingency inventory - inventory established to ensure against unusual and catastrophic events Continuous Improvement

Continuous Improvement - ongoing effort to improve products, services or processes; can be "incremental" improvement over time or "breakthrough" improvement all at once

Continuous processing - the performing of continuous production in large quantities, usually on a dedicated production line

Contract - a written or oral promissory agreement between two or more persons to do a particular activity or enter into a relationship, which is enforceable by law

Corn syrup - a glucose food syrup made from corn. Can be further refined to high-fructose corn syrup. Used to sweeten foods, prevent sugar crystallization, and alter the texture of foods

Cream - milk fat

Crème fraiche - a fermented dairy product similar to sour cream, inoculated with a bacterial culture. Crème fraiche has a higher fat content than sour cream and no additional additives or thickeners resulting in a thicker, less acidic product than sour cream

Critical Control Points (CCP) - a step at which control can be applied and is essential to prevent or eliminate a food or product safety hazard or reduce it to an acceptable level

Critical limit - a criterion that separates acceptability from unacceptability

Cross-contamination - the passing of bacteria, microorganisms, or other potentially harmful substances indirectly from one person or product to another through the use of improper or unsterile equipment, procedures, or products, example: cross contamination can occur when food is touched by hands or in contact with food contact surfaces, such as cloth towels, cutting boards, sponges, utensils that have not been cleaned and then touch ready-to-eat foods

Crystallization - separation of solids from liquids by the formation of structured solids, crystals as a result of changes in temperature or concentration of solutions

Cyclone - equipment used to separate particles from air, gas, or liquid using high speed air rotation or vortex movement; used in the production of milk and whey powders to remove particles of product from dryers

Dealer loader - An incentive given to induce a retailer to purchase and display a product

De-clumping - Separating the mussels that have clumped together while growing in a mussel sock

Demand - flow of air under specific conditions required at a particular point

Demand profile - identifies the quantities of air/gas used as a function of time, for the compressor

Demonstration technique - show that customer's objection is incorrect

Demurrage - the charge levied to a ship or railway car for a delay past the scheduled departure time due the charterer's failure to load or unload on time

Depositor - specialized food processing equipment that ejects a specified quantity of in-process product onto or into another food product to be wrapped or into moulds or onto pans

Descriptive panel - commonly used to determine differences between food samples. The descriptive panelist is experienced in the type of food being tested and receives extensive training prior to the testing Descriptive tests

Descriptive tests - concerned with trying to provide description of the sensory qualities of food Deviation

Deviation - a failure to meet required critical limits for a critical control point, or a failure to meet a standard identified in a prerequisite program or a process control

Direct denial technique - tactfully indicate objection is not valid

Discrimination tests - aim to evaluate specific attributes, i e. characteristics of products (crunchiness) They are objective tests and include pair comparison, duo trio and triangle

Diversity - understanding that all people are equal and have the same rights and responsibilities, regardless of race, religious belief, colour, gender, sexual orientation, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, or family status

Divider - a machine for cutting bulk dough into equal portions

Electronic Data Interchange (EDI) - a computer-to-computer system that transits information and documents without human intervention

Employee equity - fairness in compensation among employees in the same job, or whose positions are classified at the same job grade or level

Emulsification - a suspension of small globules of one liquid in a second liquid with which the first will not mix, e g. an emulsion of oil in vinegar

Emulsifiers - a food additive commonly used in ice cream production that helps maintain the distribution of fat and air throughout the frozen product by partially destabilizing the fat causing the fat to form structures between the incorporated air bubbles that contribute to the smooth texture of ice cream

Encruster - specialized food processing equipment that extrudes a filling that is encased in another product at the same time

Enrober - specialized food processing equipment that coats an in-process product with another in-process product, e g. coating granola bars in chocolate This equipment can also be designed to temper the chocolate as well

Enrobing - the process of covering a product with liquid chocolate or other coating, by pouring the coating over the product

Enterprise Resource Planning (ERP) - is business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back- office functions related to technology, services and human resources

Evaporated milk - also known as unsweetened condensed milk, is a canned milk product with a long shelf life produced by evaporating over half of water from fresh milk followed by homogenization, canning and sterilization

Explanation technique - tactfully ask customers to explain objection/ upon realizing objection is incorrect, customers will often retract the objection

External equity - fair and competitive compensation with respect of the market value of a job

Extra processing - any processing that does not add value to the product or is the result of inadequate technology, sensitive materials or quality prevention

Farmed oysters - Oysters that are cultivated from larvae and matured in hatcheries, as opposed to wild oysters.

Feedwater - Boiler feedwater is water used to supply ("feed") a boiler to generate steam or hot water. At thermal power stations the feedwater is usually stored, pre-heated and conditioned in a feedwater tank and supplied to the boiler by a boiler feedwater pump

FIFO (First In, First Out) - A FIFO warehouse system is an inventory management system in which the first or oldest stock is used first and the stock or inventory that has most recently been produced or received is only used or shipped out until all inventory in the warehouse or store before it has been used or shipped out.

Fillet - The flesh of a fish which has been cut or sliced away from the bone by cutting lengthwise along

one side of the fish parallel to the backbone

Fish steak - Alternatively known as a fish cutlet, is a cut of fish which is cut perpendicular to the spine and can either include the bones or be boneless

Flue gas - is the gas exiting to the atmosphere via a flue, which is a pipe or channel for conveying exhaust gases from a fireplace, oven, furnace, boiler or steam generator

Fluid bed dryer - equipment used in the production of milk and whey powders. Uses hot air, and sometimes vibration on a spray of milk or whey concentrate to create fine dry powder particles and with addition of steam cause fine powder particles to stick to each other to create larger powder particles with greater surface areas that are easier to dissolve

Fluid mild and fluid milk products - Milk commonly sold as fresh liquid milks or creams. Includes flavoured milk, concentrated milk, skim milk, fortified milk, buttermilk, milk drinks and cream products. The most perishable form of milk.

Flushometer - A device for flushing toilets that uses system pressure rather than gravity and automatica lly shuts off after a measured amount of water flow in order to conserve water

Food additives - substances added to food to preserve flavor or enhance its taste and appearance. Some additives have been used for centuries; for example, preserving food by pickling (with vinegar), salting, as with bacon, preserving sweets or using sulfur dioxide as with wines

Force majeure - act of God; circumstances beyond human control, such as a natural disaster or a civil war. The parties to a sales contract or insurance policy may agree to a clause, which provides that a contracting party will not be liable for non-execution of a contract as a result of force majeure

Formula - The calculated ratios of milk fat, non-fat solids, sweetener, emulsifier, stabilizer, and water which equals 100%. The formula also includes the ration of total solids to the volume of the finished frozen product. Used to make adjustments to recipes when new ingredients are added

Geographic target market segment - a target audience that does business in a particular language, city, state/province, or country

Gills - The paired respiratory organ of fishes and some amphibians

Glazing - The application of a protective layer of ice formed at the surface of a frozen product (e.g. frozen split lobster) by spraying it with, or dipping it into, clean seawater, potable water or potable water with approved additives.

Grading - involves the inspection, assessment and sorting of various foods regarding quality, freshness, legal conformity and market value. Food grading often occurs by hand, in which foods are assessed and sorted. Machinery is also used to grade foods, and may involve sorting products by size, shape and quality.

GSFI - Global Food Safety Initiative

Hardening - the process of cooling ice cream to -25°C as quickly as possible to freeze remaining water. Rapid freezing of water promotes growth of small ice crystals. Storage at this temperature also helps to stabilize the ice crystals and maintain product quality

Hazardous Analysis Critical Control (HACCP) - Food production, storage, and distribution monitoring system for identification and control of associated health hazards It is aimed at prevention of contamination, instead of end-product evaluation In place of relying on food inspectors to detect food safety problems, HACCP shifts the responsibility to the food producer to ensure that the product is safely consumable

Hazardous waste - waste that poses substantial or potential threats to public health or the environment

Health claim - any claim made on the label or in labelling of a food, including a dietary supplement, that expressly or by implication, including "third party" references, written statements (e g. a brand name including a term such as "heart"), symbols (e g., a heart symbol), or vignettes, characterizes the relationship of any substance to a disease or health-related condition

Hemolymph - The white congealed substance that appears when lobsters are cooked; hemolymph is the protein substance that lobsters have instead of blood and intestines.

High Temperature Short Time (HTST) - a food processing technology that kills pathogenic bacteria in food, by heating to above 72°C for a short time of at least 15 seconds. Commonly used for milk pasteurization. The changes to milk characteristics are not as significant as UHT treated milk, however

HTST dairy products have a shorter shelf life of about 2 weeks and must be refrigerated

Hock - The joint between the drumstick and the shank of poultry feet; comparable to the ankle joint in humans. It is the point where poultry "feet" also referred to as "hocks" are removed during poultry processing

Hold - in-process product that is held back until cleared to proceed or removed from process stream

Holding time - the minimum and maximum time after preparation that a product can be used for a sensory test

Homogenization - to reduce particles and disperse throughout a fluid; to make uniform in consistency, especially to render (milk) uniform in consistency by emulsifying the fat content

Homogenization - the process of breaking up and dispersing fat globules into fluid (emulsification) to prevent the separation of the fat from the fluid and create a consistent product

Hopper - a container for a bulk material, e g. flour, which typically tapers downward and is able to discharge its contents at the bottom

Hot claws - Process of picking/shucking lobster claws that are hot from the cooker

In process rework - waste material such as trims that are fed back into the process

Incubation - the period of time and the controlled environment that is optimal for the growth and development of specific bacterial cultures used in the production of fermented foods

In-line tubular screen - a relatively large mesh filter that is part of pumping system that transfers milk from tank carriers to plant storage system, used to remove debris from milk

Inoculum - in microbiology, the cells, tissue or viruses that are used to inoculate a new culture

In-process product - also known as 'work in progress' (WIP); product not yet ready for the consumer

Insurance certificate - see insurance document

Insurance document - the document issued by the insurance underwriter and provides proof that the goods are insured as they are being transported

Insurance policy - the contract of insurance between the insurer and insured where the insurer

promises to pay the insured for damage to or loss of the gods due to a particular risk

Insurance premium - the amount of money the insured must pay to the insurer in consideration of the insurer entering into and issuing the insurance policy

Insured - the person who is being insured against a particular risk

Insured goods - the goods which are the subject of the insurance against a particular risk

Insurer - the person insuring a particular risk

Intermodal/multimodal transport - the use of two or more modes of transportation to move goods from their point of origin to their destination

Internal equity - fair compensation with respect to how different positions within the organization relate to each other

Invoice - A nonnegotiable commercial document issued by the seller to a buyer It identifies both parties and provides a list that describes and quantifies the number of items sold, the date of shipment, mode of transportation, discounts and delivery and payment terms In certain cases it may serve as a demand for payment and becomes a document of title when paid in full Types of invoices include commercial invoice, consular invoice, pro forma invoice, bill of sale, contract of sale

Kefir - a fermented beverage that can be made from milk inoculated with a combination of yeasts, milk proteins and bacteria and incubated at a lower temperature than yogurt. It has a higher fat, protein, and probiotic content that yogurt with a thinner consistency, ideal for consumption as a beverage

Key Performance Indicator - A set of quantifiable measures that a company or industry uses to gauge or compare performance in terms of meeting their strategic and operational goals KPIs vary between companies and industries, depending on their priorities or performance criteria

Kneading - to work and press (a soft substance, such as bread dough) into a uniform mixture

Lactose - naturally occurring sugar in milk

Last chance close technique - method to close sale that puts time limitation on the deal, e g. “Our promotion ends Friday”

Lay Off - is the temporary suspension or permanent termination of employment of an employee or (more commonly) a group of employees for business reasons, such as when certain positions are no longer necessary or when a business slow-down occurs

Lead-time - time taken from placing order to fulfilling order

Levels of risk - based on probability and severity of potential injury caused by defective food product will impact the time frame to deal with defective product, e g. high risk requires immediate action

LIFO - last in, first out stock rotation system

Lock-out/tag-out - A safety procedure which is used in industry and research settings to ensure that dangerous machines are properly shut off and not started up again prior to the completion of maintenance or servicing work.

Luminometer - a sensitive photometer used for measuring very low light levels (as those produced in a luminescent process)

Management Information Systems (MIS) - broadly refers to a computer-based system that provides managers with the tools to organize, evaluate and efficiently manage departments within an organization. A management information system that can include software to help in decision making, databases to track trends over time, hardware to run the system, people management and project management applications, and any computerized processes that enable the organization to run efficiently

Manifest - B/L or any other cargo control document (waybill, etc)

Mantle - A significant part of the anatomy of mollusks. It is the dorsal body wall which covers the visceral mass and usually protrudes in the form of flaps well beyond the visceral mass itself.

Marinade - a liquid mixture, usually of vinegar or wine, to break down meat collagen and oil with various spices and herbs for flavouring, in which meat, fowl, fish or vegetables are soaked before cooking

Mastering - The process of final packaging

Material safety data sheet (MSDS) - a document that contains information on the potential hazards

(health, fire, reactivity and environmental) and how to work safely with the chemical product

Membrane filtration - the use of membranes with pores of varying sizes and pressure used to separate water and dissolved solids at the molecular level. Membrane filtration used in milk and whey processing are used to separate out different substances such as protein, lactose, fat, and minerals. Membranes of varying pore size are used for microfiltration, ultrafiltration, and nanofiltration. Diafiltration is the second ultrafiltration of the solids from the first ultrafiltration diluted with water

Mentoring - an ongoing formal/informal relationship of a more senior, experienced person within the organization providing support and guidance to younger employees. Often a means to pass on knowledge, experience, and open doors for younger employees

Microfiltration - use of polymer-based or ceramic based membranes with openings of 1.4 micro-millimetres used to filter milk to remove undesirable particulates from milk using a temperature and pressure controlled closed system

Milk composition - The chemical components of milk, i.e. water, fat, protein, calcium and milk sugar lactose

Milk fat - a complex mixture of triglycerides and fatty acids, the main component of milk cream, also referred to as butterfat

Milk grading - sensory evaluation process of fluid milk, based primarily on smell, appearance, feel and taste; may be required to be conducted by certified milk graders in some jurisdictions

Milk solids - the solids in milk other than milk fat and water, i.e. protein, lactose and minerals. Dried, concentrated milk proteins typically extracted from whey

Milt - The seminal fluid of male fish

Modes of transportation - refers to the use of airplanes, rail cars, trucks and ships to carry goods from one destination to another via air, rail, road and waterways

Most probable number - the number of organisms that are most likely to have produced laboratory results in a particular test. The MPN methods is used to quantify the concentration of viable microorganisms in a sample and involves inoculating decimal dilutions into tubes of a broth medium,

observing the results and using a standard MPN table

Mussel socks - Long mesh tubes or 'socks' in which seeded mussels grow to maturity under water.

Muster point - A muster point is a designated place or an area where all employees, passengers, or a large crowd assemble in case of an emergency in an installation, building, public place or a watercraft. It is also known as an emergency assembly point (EAP), or, simply, assembly point

Mutagenic - in genetics, a mutagen is a physical or chemical agent that changes the genetic material, usually DNA, of an organism and thus increases the frequency of mutations above the natural background level. As many mutations cause cancer, mutagens are therefore also likely to be carcinogens

Neutralizer - Neutralizer is a substance or material used in the neutralization of acidic water. It is a common designation for alkaline materials such as calcite (calcium carbonate) or magnesia (magnesium oxide) used in the neutralization of acid waters

Non-conforming product - finished and in-process product that does not conform to specifications

Non-contact systems - the process where compressed air is exhausted into the local atmosphere of the food preparation, production, processing, packaging or storage

Non-fat milk solids - the solids in milk other than milk fat and water, i.e. protein, lactose and minerals

Non-Potable Water - Water that has not been examined, properly treated, and not approved by appropriate authorities as being safe for consumption

Nutrient content claim (NCC) - a claim on a food product that directly or by implication characterizes the level of a nutrient in the food (e g., "low fat," "high in oat bran," or "contains 100 calories"

Online presence - An online presence is the sum of all the identities you've created (can be both personal and business-driven) and the interactions those identities have established, and participated in, online

Opercular plate - The bony plate that covers and protects the gills of most bony fish. Also called the gill cover

Operculum - The gill cover of a fish

Organoleptic - Refers to any sensory properties of a product involving taste, colour, odour and feel – organoleptic testing involves inspection through visual examination, feeling and smelling of products

Overrun - the percentage increase in volume of the ice cream than the original volume of mix used, for example if 1 litre of mix is used to create 1.5 litres of ice cream, the volume was increased by 50% which means the overrun is 50%

Packing list - Itemized list of articles usually included in each shipping package. Provides quantity, description and weight of contents Prepared by shipper and sent to consignee for accurate account of delivered goods Also referred to as packing slip or unpacking note

Pasteurization - the process of heating a food, such as mussels, milk or beer, to a specific temperature for a specific period of time in order to kill microorganisms that could cause disease, spoilage or undesired fermentation

Pathogen - any disease-producing agent, especially a virus, bacterium or other microorganism

Pathogenic bacteria - bacteria that can cause infection. Although most bacteria are harmless or often beneficial, several are pathogenic

Pay equity - difference in pay between males and females

Pectoral fins - Each of a pair of fins situated on either side just behind a fish's head, helping to control the direction of movement during locomotion

Performance validation - testing equipment to ensure that expected performance is being met e g. temperature, metal detector is functional

Peritoneum - The membrane lining the cavity of the abdomen and covering the abdominal organs of a fish

Permeate - The liquid that passes through a filter or membrane filter

Pests - insects, rodents and birds

Physico-chemical parameters - pertaining to both physical and chemical properties, changes and reactions

Pin bones - The fine bones found down the centre of fish fillets

Point-of-purchase displays - Used to create the urge of "impulse" buying and selling your product on the spot

Policy - A written statement that clearly indicated the position and values of the organization on a specific topic. It contains rules and stipulates what to do

Potable Water - Drinking water or potable water is water safe enough to be consumed by humans or used with low risk of immediate or long-term harm

Preference tests - supply information about people's likes and dislikes of a product. They are not intended to evaluate specific characteristics, such as crunchiness or smoothness They are subjective tests and include pair comparison, hedonic and scoring

Pressure dew point - the temperature at which water will begin to condense out of air at a given pressure. To ensure that no liquid water is present, the pressure dew point must be less than the lowest temperature to which the compressor air will be exposed

Pressure drop - the loss or pressure in a compressed air system due to friction or flow restriction

Pricing strategy - Activities aimed at finding a product's optimum price, typically including overall marketing objectives, consumer demand, product attributes, competitors' pricing, and market and economic trends

Probiotics - live bacteria and yeasts that occur naturally in the human digestive tract and aid in digestion. Often added to foods such as yogurt to promote digestive health

Product cost - The sum of all costs associated with the production of a specific quantity of a good or service

Product returns - ability to record and track returned products and reason for return by consumers

Production code - a numbering/lettering system used to identify the particular batch, which includes a date code and may include a plant identifier The date code can refer to production date, or sell by date, or best-before/use by/expiration date, and can be in a user-friendly familiar date format, or another format, e g Julian code, which uses the number of days since January 1 of the production/use by year

Programmable Logic Controller (PLC) - a digital computer used for automation of typically industrial electromechanical processes, such as control of machinery on factory assembly lines, amusement rides, or light fixtures

Prototype - a first, typical or preliminary model of something, especially a machine, from which other forms are developed or copied

Public relations - the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and plans and executes a program of action to earn public understanding and acceptance

Purchase order - A buyer-generated document that authorizes a purchase transaction. When accepted the seller it becomes a contract binding both parties. A purchase order states the descriptions, quantities, prices, discounts, payment terms, date of performance or shipment and other associated terms and conditions

Push money - also known as "spiffs". An extra commission paid to retail employees to push products

Qualified health claim - A claim authorized by the US Food and Drug Administration (FDA) that must be supported by credible scientific evidence regarding a relationship between a substance (specific food or food component) and a disease or health-related condition

Qualitative Analysis - defines consequence, probability and level of risk by significance levels such as 'high', 'medium' and 'low', may combine consequence and probability and evaluates the resultant level of risk against qualitative criteria

Quantitative Analysis - estimates practical values for consequences and their probabilities and produces values of the level of risk in specific units defined when developing context. Full quantitative analysis may not always be possible or desirable

Radio Frequency Identification (RFID) - is the wireless use of electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects

Raw material - food inputs into the process

Raw milk - milk that has not been pasteurized

Recall - an action taken by an organization to remove potentially unsafe food products or products from the market that do not comply with relevant laws. It is the responsibility of organization to remove the product from sale or distribution

Recipe - The amounts of ingredients required to mix a batch of product base/blend; based on formula ratios

Recovery CIP - Cleaning solution used in CIP is not very dirty after one cleaning cycle, and it can be reused in the CIP process

Retentate - The components of a liquid that are retained or collected by a filter or membrane filter. The sludge created by the accumulation of undesired particulates, including microorganisms, on microfiltration membranes that milk passes through

Retort a closed vessel used to sterilize canned food products by raising the temperature by hot water or steam and pressure.

Return on investment - a profitability measure that evaluates the performance of a business by dividing net profit by net worth

Reverse Osmosis - also known as RO, is a water purification technology that uses a semipermeable membrane

Rework - product that initially has been removed production and is able to be returned into the production stream to be re-processed

Rework due to error - process is redone to meet specifications, e g. packaging

RFID tags - radio frequency identification tags, typically clipped to ears of cattle that contain an electronic chip that contains that particular animal's information, e g. type of animal, what farm it is from, owner, used for traceability purposes

Ripening - incubation period of cream inoculated with bacterial culture for a specified period time at a specified temperature used to produce cultured butter

Roe - unfertilized eggs found within the body cavity and tail of a female lobster

Roe - The unfertilized eggs of female fish

Root cause - highest level cause of a problem, that if removed will prevent the problem from re-occurring

Root cause analysis - a term that describes a wide range of investigative approaches, tools and techniques used to identify the cause of problem or factor that has caused a non-conformance or deviation from specifications

Sales Lead - A prospective consumer of a product or service that is created when an individual or business shows interest and provides his or her contact information

Salinometer - A device designated to measure the salinity, or dissolved salt content, of a solution. Also known as a 'brine tester.'

Sanitation Standard Operating Procedure (SSOP) - An SSOP is a written procedure that explains exactly how a certain cleaning task is completed. These procedures may vary from farm to farm The purpose of the SSOP is to provide enough detail so employees can perform the task correctly by reading the procedure without any additional instruction

Sanitizer - A substance or preparation for killing germs, designed for use especially on food-processing equipment. The treatment of a clean surface with a chemical or physical agent (e.g. heat) to reduce microorganisms that cause disease and/or spoilage to levels considered safe for public health. By definition, sanitizing a food contact surface must reduce the population of specific bacteria by 99.999 percent in 30 seconds. Non-food contact surfaces require a reduction of 99.9 percent, also with 30 seconds. When microbial populations are reduced to these levels, the surfaces are considered to be microbiologically clean

Sanitizing - is the treatment of a clean surface with a chemical or physical agent (e g heat) to reduce microorganisms that cause disease and/or spoilage to levels considered safe for public health By definition, sanitizing a food contact surface must reduce the population of specific bacteria by 99 999 percent in 30 seconds Non-food contact surfaces require a reduction of 99 9 percent, also with 30 seconds When microbial populations are reduced to these levels, the surfaces are considered to be microbiologically clean

Scaling - Removing the scales from the outer skin of a fish using manual scaling tools or scaling

machinery

Seed crystals - small solid crystals added to solution that provide a nucleus for crystal formation, often used to encourage the growth of larger crystals

Semi-Quantitative Analysis - use numerical rating scales for consequence and probability and combine them to produce a level of risk using a formula. Scales may be linear or logarithmic, or have some other relationship; formulae can also vary

Sensory analysis - a scientific discipline that applies principles of experimental design and statistical analysis to the use of human senses (sight, smell, taste, touch and hearing) for the purposes of evaluating consumer products The discipline requires panels of human assessors, on whom the products are tested, and recording the responses made by them

Shelf-life - the length of time for which the product remains saleable, i e. fit for consumption, and ideally, retaining the majority of its peak quality characteristics

Shelf-life studies - studies conducted on various types of products to determine the length of time a product will retain certain qualities, including microbial counts, taste, appearance, vitamin levels and odor

Shipper - Sometimes known as “exporter”, “consignor” or “sender”, this term refers to the individual or company who owns or is supplying the goods being shipped

Single-use CIP - Cleaning solutions used in CIP are immediately disposed of after use.

Siphon - Siphons in molluscs are tube-like structures in which water flows. The water flow is used for one or more purposes such as movement, feeding, breathing and reproduction. The siphon is part of the mantle of the clam.

Slotting - the process of defining the quantity and size of all forward pick and reserve locations

Smoulder spots - spots in in dryers, especially fluid bed dryers that are potential fire hazards due to the combustible nature of fine air particles and high temperatures

Sort boards - plastic board used by animal handlers to divide groups of animals and guide animals in the direction they need to go

Stabilizers - a group compounds such as polysaccharide food gums used to prevent food emulsions from separating, or crystalizing and to aid in maintaining the dispersions of flavourings and/or air. Most commonly used in ice creams and other frozen products

Stakeholder - anyone that can be affected by a company's actions, objectives, and policies. This includes both internal stakeholders, such as employees and managers, and external stakeholders, such as shareholders, suppliers, customers, surrounding communities, creditors, government representatives, etc

Stakeholder approach - the impact of business operations on a wide range of issues, not just profit; including, but not limited to: profit, reputation, employees, supplies, customers, shareholders, the environment, and the communities where the company conducts business The length of concern for changes in business operations is usually short-term and long-term; such as understanding the need to meet business objectives on a quarterly or annual basis, but also appreciating the need to focus on the impact on the company beyond just an annual time-frame

Standard - criteria or specifications that can be judged or evaluated and that define the limits of acceptability associated with prerequisite programs and process controls

Standard Operating Procedure (SOP) - A written set of instruction that describes how to perform the required steps for a particular task or sequence of tasks

Standardized milk/standardization - milk or the process of adjusting the milk fat or non-fat milk solids content to different levels than what was received from the dairy. Typically, raw milk is centrifuged to separate the cream from the milk. The two constituents, milk fat and skim milk are recombined to specified levels to produce different fluid milk products, e.g. cream, half and half, whole milk, 2% milk, 1% milk, skim

Steam Quality - Steam quality ranges from 0 to 100% - and is defined as the ratio of the amount of saturated steam vapor to the total steam amount (which may consist of both saturated steam vapor and liquid). A 100% steam quality translates to zero amount of saturated steam liquid and, in this condition, the steam is termed to be "dry"

Sterilization - treatment to make free from live bacteria or other microorganisms. The application of

heat to food that kills food spoilage microorganisms and inactivates food enzymes, resulting in food products with a long shelf life

Stock Keeping Unit - SKU' - A store's or catalog's product and service identification code, often portrayed as a machine-readable bar code that helps the item to be tracked for inventor

Stock-out - when there is insufficient stock available to meet demand

Storage insects - beetles, weevils, moths and borers

Sub-standard - below or not meeting the requirements of the standard

Succession planning - is the Identification and development of potential successors for key positions in an organization, through a systematic evaluation process and training. Unlike replacement planning (which grades an individual solely on the basis of his or her past performance) succession planning is largely predictive in judging an individual for a position he or she might never have been

Sucrose - common table sugar from refined sugar cane or sugar beets

Superior point technique - acknowledge objection is valid and counter with superior sales point or benefit

Sustainability - a business strategy that mandates the inclusion of environmental and social issues in the business model as part of long-term corporate growth

Sweetened condensed milk - a concentrated, sweet, thick, darker coloured milk product, resulting from the loss of water during heating and a sweeter flavour from the addition of sugar

Sweeteners - substance used to make foods taste sweeter, i.e. sugar, honey, syrups, artificial compounds such as saccharin,

Tempering - the process of melting and then cooling the melted chocolate so that it will form beta crystals, which give hard chocolate the desired characteristics of sheen, hardness and mouth feel

Tenderize - to make meat tender by pounding it to break down the fibres, by steeping it in a marinade, or by treating with a tenderizer, such as papain, a plant enzyme

Terminal privileges - fees paid by carriers for vehicles and airplanes to load and unload at airports,

railway stations, ports

Testimonial technique - use testimony of satisfied clients to answer objection

Thorax - Part of the lobster anatomy located between the head and the tail. Together, the head and the thorax of the lobster (i.e. the cephalothorax) are often referred to as the 'body' of the lobster.

Titration - A titration is a technique where a solution of known concentration is used to determine the concentration of an unknown solution. Typically, the titrant (the know solution) is added from a buret to a known quantity of the analyte (the unknown solution) until the reaction is complete

Traceability - ability to trace and follow raw materials, components and products, through all stages of receipt, production, processing and distribution, both forwards and backwards

Trade allowances - short term incentive offered to induce a retailer to stock up on a product

Trade contest - A contest to reward retailers that sell the most product

Trade sales promotion - Sales promotions targeted at retailers and wholesalers

Training programs - dealer employees are trained in selling the product

Troubleshooting - A form of problem solving, often applied to repair failed products or processes It is a logical, systematic search for the source of a problem so that it can be solved, and so the product or process can be made operational again Troubleshooting is needed to develop and maintain complex systems where the symptoms of a problem can have many possible causes

Turn negative into positive technique - turn objection into benefit, especially when objection is based on sales point

Ultrasonic acoustic tester - a testing device that recognizes the high frequency hissing sounds associated with air leaks. These portable units consist of directional microphones, amplifiers and audio filters and usually have either visual indicators or earphones to detect leaks

Union steward - Employee elected by his or her co-workers to act as the onsite union representative Stewards are generally responsible for handling grievances, resolving disputes, and overseeing the implementation of the terms of the collective- bargaining agreement Validation- a system by which you determine if processes and procedures are working

Vacuum deaeration - the removal of air and other dissolved gases found in fluid milk using temperature to create a vacuum that causes the release of air and non-condensable gases, which are removed from the product

Value-added - the process of changing or transforming a product from its original state to a more valuable state

Variance - A periodic measure used by governments, corporations or individuals to quantify the difference between budgeted and actual figures for a particular accounting category. A favorable budget variance refers to positive variances or gains; an unfavorable budget variance describes negative variance, meaning losses and shortfalls Budget variances occur because forecasters are unable to predict the future with complete accuracy

Vendor Managed Inventory system (VMI) - vendor (or supplier) manages the inventory that is held at the client's sites The vendor monitors inventory levels and organizes the replenishment of stock when required The client only pays for the inventory when it is used; the vendor and the client must use linked computer systems, usually using electronic data interchange (EDI) to enable the vendor to monitor inventory levels at the client site and submit invoices for payment automatically

Vent - The common outside opening of the cloaca in birds through which the digestive, excretory and reproductive tracts empty, i.e. anus

Vent-cutting - The process of cutting the skin and tissue around the anus in order to release and remove the viscera of poultry and game birds without rupturing

Verification - a process to determine if a task is completed according to the specified process

Viscera - The internal organs in the main body of the fish

Volatile aromas - gases with an odour that is easily released and detected. These odours may or may not be desirable. In butter making, volatile aromas tend to be the result of specific dairy feed at certain times of the year, which produce undesirable odours in butter. These gases are removed using vacuum deaeration

Warehouse Management System (WMS) - a software application that supports the day-to-day operations in a warehouse

Waybill - See Bill of lading

Weight break - a shipment's weight break is the point at which the weight of a shipment is large enough to be assessed the lower freight rates which are applicable to larger shipments, as per the carrier's tariff

Wet storage - Storing separated mussels in tanks of sea water or brine until ready for further processing.

Whey - the fluid that remains after curdling, considered a by-product of cheese making. Whey can be sweet or sour depending on the curdling pH and the use of rennet and/or LAB. Cheese can be made from whey, although the most common use is for concentrated whey protein powders

Whey butter - fat separated from whey liquid separation that is commercially processed into a spread product similar to a butter

Whey/whey liquid - the fluid that remains after coagulation or curdling, a by-product of cheesemaking and yogurt production. Whey can be sweet or sour (acidic) depending on the curdling pH and the use of rennet and/or lactic acid bacteria (LAB). Most common use if for the production of concentrated whey protein powders, although it can also be used to product whey cheese and whey butter

WHMIS - The short form for Workplace Hazardous Materials Information System. It is a comprehensive plan for providing information on the safe use of hazardous materials used in Canadian workplaces. Information is provided by means of product labels, safety data sheets (SDS) and worker education programs.

Wild oyster - Oysters that grow naturally in waterways (as opposed to farmed oysters) that are harvested by fisherpersons and processed in oyster processing facilities.

Workplace hazardous materials information system (WHMIS) - a comprehensive plan for providing information on the safe use of hazardous materials used in Canadian workplaces. Information is provided by means of product labels, material safety data sheets (MSDS) and worker education programs

Wrap - specialized food processing equipment designed with rollers and flippers that can wrap one in-process product around another in-process product that has been deposited on it

"Yes and…" technique - agree with customer's objection and tactfully provide answer

Yield - ratio of amount of primary product output to the amount of raw material input expressed as a percentage

APPENDICES

APPENDIX A: USING FOOD SAFETY JOB COMPETENCIES FOR HACCP COORDINATOR

The human resource national occupational standard and its competency units can be used by owners, managers and supervisors, and trainers in creating interview guides, orientation checklists, performance evaluations and training curriculum as follows:

INTERVIEW GUIDES

Sample Interview Questions

JOB TITLE: HACCP Coordinator
DEPARTMENT: Food Safety
INCUMBENT: Candidate Name
REPORTS TO: Manager

Attitude

1. What does professionalism mean to you?
2. Do you think team work is an important part of this job? Why or why not?
3. In addition to your skills and knowledge, what positive contributions do you think you will make to our company?

Skills

1. Tell me about a prerequisite program you've developed for sanitation and pest control.
2. Tell me about the steps you would take to develop a HACCP or equivalent food safety plan.
3. How would you monitor implement a food safety management system?

Knowledge

1. What are the principles of food safety?
2. Can you give me three chemical, physical or biological hazards?
3. What are the indicators of pests?

ORIENTATION CHECKLIST

The skills outlined in a NOS can also be applied to the orientation program of an organization. Checklists highlighting key practices and responsibilities can be utilized to inform new employees of their specific tasks and duties.

Sample Orientation Checklist for New Hires

JOB TITLE: HACCP Coordinator
DEPARTMENT: Food Safety
REPORTS TO: Manager

Day 1

- Tour organization
- Introduce co-workers
- Show location of first aid stations
- Show waste disposal areas
- Explain organizational policies, procedures and practices
- Explain company's policies regarding waste disposal
- Explain company's policies regarding health and safety
- Demonstrate and practice:
    - Food safety management system
    - Recall plan
    - How to handle and prepare chemicals

PERFORMANCE REVIEW

The details in the standards are also useful as measurable criteria for occupations. The larger standards categories and subskills can be formatted into checklists for performance evaluations or reviews.

Sample HACCP Coordinator Evaluation

Developing HACCP Plans or Equivalent Food Safety Plans

- ☐ Assemble team
- ☐ Describe products and intended uses
- ☐ Create process flow diagram and plant schematic
- ☐ Verify process flow and plant schematic
- ☐ Conduct hazard analysis
- ☐ Determine critical control points
- ☐ Establish critical limits
- ☐ Establish procedures to monitor each critical control point
- ☐ Establish procedures to take corrective action
- ☐ Establish verification and validation procedures
- ☐ Establish record keeping and documentation control procedures

Implementing Food Safety Management System

- ☐ Communicate food safety management systems to management and staff
- ☐ Verify programs and tasks are being completed as required
- ☐ Review and validate food safety management system
- ☐ Update program documentation

Training Staff

- ☐ Develop employee resources
- ☐ Provide orientation to new staff
- ☐ Plan training
- ☐ Conduct training

APPENDIX B: JOB COMPETENCIES FOR FOOD MANUFACTURING

Food Processing Skills Canada (FPSC) - Online Skills Database

FPSC hosts the **National Online Skills Library** for the Food and Beverage Manufacturing industry. The skills Library provides employers and workers access to hundreds of documents, including National Occupational Standards, essential skills, job descriptions, skills assessment checklists, language benchmarks, and more for job positions in:

- ❖ Food Safety
- ❖ Equipment & Facilities Maintenance
- ❖ Research & Development
- ❖ Food Production
- ❖ Supply-chain & Logistics
- ❖ Marketing, Sales, HR and Finance

The FPSC SKILLS DATABASE has competencies needed for 610 tasks in the food industry. These tasks are organized under task groups and major task areas for easy identification.

Each of the 610 tasks has a description of **performance indicators** and **knowledge requirements** used to assess **job competency** in the task. Each task document can be downloadable in Word/PDF format at the **National Online Skills Library**.

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
COMMERCIAL BAKING	Prepare Ingredients for Bakery Products	1	Sieve/sift flour
COMMERCIAL BAKING	Prepare Ingredients for Bakery Products	2	Scale ingredients
COMMERCIAL BAKING	Use Commercial Baking Techniques	3	Mix bakery ingredients
COMMERCIAL BAKING	Use Commercial Baking Techniques	4	Extrude dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	5	Bulk ferment dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	6	Divide dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	7	Preshape and rest dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	8	Sheet/roll dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	9	Laminate dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	10	Cut sheeted/laminated dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	11	Final shape dough
COMMERCIAL BAKING	Use Commercial Baking Techniques	12	Proof/final-proof bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	13	Deposit batter
COMMERCIAL BAKING	Use Commercial Baking Techniques	14	Apply toppings/ decorations to unbaked products
COMMERCIAL BAKING	Use Commercial Baking Techniques	15	Deposit/inject filling into bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	16	Boil bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	17	Steam bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	18	Bake/par-bake bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	19	Fry bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	20	Cool bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	21	Apply icing/ glazes/ washes/ toppings/ decorations to bakery products
COMMERCIAL BAKING	Use Commercial Baking Techniques	22	Freeze bakery products
COMMERCIAL BAKING	Produce Commercial Bakery Products	23	Prepare raw dough products
COMMERCIAL BAKING	Produce Commercial Bakery Products	24	Prepare yeast-leavened bakery products
COMMERCIAL BAKING	Produce Commercial Bakery Products	25	Prepare unleavened bakery products

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
COMMERCIAL BAKING	Produce Commercial Bakery Products	26	Prepare crackers
COMMERCIAL BAKING	Produce Commercial Bakery Products	27	Prepare quick breads
COMMERCIAL BAKING	Produce Commercial Bakery Products	28	Prepare cookies
COMMERCIAL BAKING	Produce Commercial Bakery Products	29	Prepare cakes
COMMERCIAL BAKING	Produce Commercial Bakery Products	30	Prepare pastries
COMMERCIAL BAKING	Produce Commercial Bakery Products	31	Prepare Choux pastry
COMMERCIAL BAKING	Produce Commercial Bakery Products	32	Prepare layered pastry products
COMMUNICATIONS	Communicate Effectively	33	Use active listening skills
COMMUNICATIONS	Communicate Effectively	34	Use speaking skills
COMMUNICATIONS	Communicate Effectively	35	Use hand signals
COMMUNICATIONS	Communicate Effectively	36	Use writing skills
COMMUNICATIONS	Communicate Effectively	37	Conduct meetings and presentations
COMMUNICATIONS	Communicate Effectively	38	Manage internal and external communication
CRUSTACEAN PROCESSING	Process Whole Lobster	39	Clean whole lobster
CRUSTACEAN PROCESSING	Process Whole Lobster	40	Net whole lobster
CRUSTACEAN PROCESSING	Process Whole Lobster	41	Prepare brined whole lobster
CRUSTACEAN PROCESSING	Process Raw Lobster Tails	42	Remove raw lobster tails
CRUSTACEAN PROCESSING	Process Raw Lobster Tails	43	Clean raw lobster tails
CRUSTACEAN PROCESSING	Process In-Shell Lobster Segments	44	Separate/Split lobster into segments
CRUSTACEAN PROCESSING	Process In-Shell Lobster Segments	45	Clean in-shell lobster segments
CRUSTACEAN PROCESSING	Process Lobster Meat	46	Pick/Shuck lobster meat
CRUSTACEAN PROCESSING	Process Lobster Meat	47	Clean lobster meat
CRUSTACEAN PROCESSING	Process Lobster Meat	48	Brine cooked lobster meat
CRUSTACEAN PROCESSING	Process Lobster Meat	49	Prepare lobster mince
CRUSTACEAN PROCESSING	Process Crab	50	Butcher crab
CRUSTACEAN PROCESSING	Process Crab	51	Prepare crab meat
CRUSTACEAN PROCESSING	Process Crab	52	Prepare crab mince
CRUSTACEAN PROCESSING	Process Shrimp	53	Prepare shrimp for primary processing
CRUSTACEAN PROCESSING	Process Shrimp	54	Cook and peel shrimp using automated equipment
DAIRY PROCESSING	Receive Raw Milk	55	Receive Raw Milk
DAIRY PROCESSING	Process Fluid Milk	56	Remove micro-organisms from milk
DAIRY PROCESSING	Process Fluid Milk	57	Remove micro-organisms from milk for cheesemaking
DAIRY PROCESSING	Process Fluid Milk	58	Separate Milk
DAIRY PROCESSING	Process Fluid Milk	59	Standardize Milk
DAIRY PROCESSING	Process Fluid Milk	60	Pasteurize/heat-treat milk
DAIRY PROCESSING	Process Fluid Milk	61	Homogenize Milk
DAIRY PROCESSING	Process Fluid Milk	62	Batch milk for cheesemaking
DAIRY PROCESSING	Prepare Base/Blend	63	Prepare ingredients to add to dairy products
DAIRY PROCESSING	Prepare Base/Blend	64	Batch ingredients for dairy products
DAIRY PROCESSING	Use Dairy Processing Techniques	65	Produce butter
DAIRY PROCESSING	Use Dairy Processing Techniques	66	Produce cultured/fermented dairy products
DAIRY PROCESSING	Use Dairy Processing Techniques	67	Produce condensed dairy blend products
DAIRY PROCESSING	Use Dairy Processing Techniques	68	Produce milk powder products
DAIRY PROCESSING	Use Dairy Processing Techniques	69	Produce whey products
DAIRY PROCESSING	Use Dairy Processing Techniques	70	Produce lactose products

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
DAIRY PROCESSING	Use Dairy Processing Techniques	71	Produce frozen dairy products
DAIRY PROCESSING	Use Dairy Processing Techniques	72	Finish frozen dairy products
DAIRY PROCESSING	Use Cheese Making Techniques	73	Add coagulating agents and other additives
DAIRY PROCESSING	Use Cheese Making Techniques	74	Process coagulum
DAIRY PROCESSING	Use Cheese Making Techniques	75	Form cheese products
DAIRY PROCESSING	Use Cheese Making Techniques	76	Salt in-process cheese
DAIRY PROCESSING	Use Cheese Making Techniques	77	Prepare ingredients to add to cheese
DAIRY PROCESSING	Use Cheese Making Techniques	78	Complete post-production cheese-making tasks
DAIRY PROCESSING	Use Cheese Making Techniques	79	Age in-process cheese products
DAIRY PROCESSING	Use Cheese Making Techniques	80	Prepare whey-based cheese products
DAIRY PROCESSING	Evaluate Dairy Products	81	Perform sensory evaluation of cheese
DAIRY PROCESSING	Evaluate Dairy Products	82	Perform tests on cheese
DAIRY PROCESSING	Evaluate Dairy Products	83	Evaluate Dairy Products
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	84	Conduct pre-operation check on food processing equipment
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	85	Start up food processing equipment
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	86	Monitor food processing equipment operation
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	87	Perform food processing changeovers
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	88	Perform minor maintenance on food processing equipment
EQUIPMENT AND TOOLS	Operate Food Processing Equipment	89	Troubleshoot minor food processing equipment problems
EQUIPMENT AND TOOLS	Use Food Processing Hand and Power Tools	90	Use food processing hand and power tools
EQUIPMENT AND TOOLS	Use Food Processing Hand and Power Tools	91	Use knives and saws
EQUIPMENT AND TOOLS	Operate Materials Handling Equipment	92	Conduct pre-operation check on materials handling equipment
EQUIPMENT AND TOOLS	Operate Materials Handling Equipment	93	Start up materials handling equipment
EQUIPMENT AND TOOLS	Operate Materials Handling Equipment	94	Monitor materials handling equipment operation
EQUIPMENT AND TOOLS	Operate Materials Handling Equipment	95	Perform minor maintenance on materials handling equipment
EQUIPMENT AND TOOLS	Operate Materials Handling Equipment	96	Troubleshoot minor materials handling equipment problems
EQUIPMENT AND TOOLS	Use Materials Handling Hand and Power Tools	97	Use materials handling hand and power tools
EQUIPMENT AND TOOLS	Lock out Equipment	98	Lock out equipment
EQUIPMENT AND TOOLS	Maintain Equipment	99	Develop preventative maintenance program
EQUIPMENT AND TOOLS	Maintain Equipment	100	Conduct preventative maintenance
EQUIPMENT AND TOOLS	Maintain Equipment	101	Conduct shutdown maintenance
EQUIPMENT AND TOOLS	Maintain Equipment	102	Maintain parts inventory
EQUIPMENT AND TOOLS	Repair Equipment	103	Troubleshoot equipment malfunctions
EQUIPMENT AND TOOLS	Repair Equipment	104	Complete equipment repairs
EQUIPMENT AND TOOLS	Operate Quality Control Monitoring Equipment	105	Calibrate quality control monitoring equipment
EQUIPMENT AND TOOLS	Operate Quality Control Monitoring Equipment	106	Use quality control monitoring equipment
FACILITY MAINTENANCE AND REPAIRS	Maintain Heating, Ventilation, Air Conditioning and Refrigeration System (HVAC-R)	107	Oversee design of facility HVAC-R system
FACILITY MAINTENANCE AND REPAIRS	Maintain Heating, Ventilation, Air Conditioning and Refrigeration System (HVAC-R)	108	Install facility HVAC-R system
FACILITY MAINTENANCE AND REPAIRS	Maintain Heating, Ventilation, Air Conditioning and Refrigeration System (HVAC-R)	109	Monitor facility HVAC-R system
FACILITY MAINTENANCE AND REPAIRS	Maintain Heating, Ventilation, Air Conditioning and Refrigeration System (HVAC-R)	110	Maintain facility HVAC-R system
FACILITY MAINTENANCE AND REPAIRS	Maintain Heating, Ventilation, Air Conditioning and Refrigeration System (HVAC-R)	111	Repair facility HVAC-R system
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	112	Oversee design of facility electrical system
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	113	Install electrical system equipment and components
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	114	Maintain electrical system
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	115	Service electrical system

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	116	Repair lighting systems
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	117	Evaluate potential to conserve electricity
FACILITY MAINTENANCE AND REPAIRS	Maintain Electrical System	118	Conserve electrical energy
FACILITY MAINTENANCE AND REPAIRS	Maintain Piping System	119	Oversee design of process piping system
FACILITY MAINTENANCE AND REPAIRS	Maintain Piping System	120	Install process piping system
FACILITY MAINTENANCE AND REPAIRS	Maintain Piping System	121	Maintain piping system
FACILITY MAINTENANCE AND REPAIRS	Maintain Piping System	122	Repair piping system
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	123	Oversee design of facility water flows
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	124	Install water purification system
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	125	Maintain water purification system
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	126	Evaluate potential to conserve water
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	127	Conserve water
FACILITY MAINTENANCE AND REPAIRS	Maintain Water System	128	Monitor water flows
FACILITY MAINTENANCE AND REPAIRS	Maintain Wastewater System	129	Oversee design of facility wastewater management system
FACILITY MAINTENANCE AND REPAIRS	Maintain Wastewater System	130	Install process facility wastewater system
FACILITY MAINTENANCE AND REPAIRS	Maintain Wastewater System	131	Monitor facility wastewater management system
FACILITY MAINTENANCE AND REPAIRS	Maintain Wastewater System	132	Repair facility wastewater management system
FACILITY MAINTENANCE AND REPAIRS	Maintain Plumbing System	133	Oversee design of facility plumbing system
FACILITY MAINTENANCE AND REPAIRS	Maintain Plumbing System	134	Install plumbing equipment and components
FACILITY MAINTENANCE AND REPAIRS	Maintain Plumbing System	135	Maintain plumbing system
FACILITY MAINTENANCE AND REPAIRS	Maintain Plumbing System	136	Service plumbing system
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	137	Oversee design of steam system
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	138	Install steam system
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	139	Maintain steam system
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	140	Repair steam system
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	141	Evaluate potential to conserve steam
FACILITY MAINTENANCE AND REPAIRS	Maintain Steam System	142	Conserve steam
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	143	Oversee design of compressed air and gas system
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	144	Install compressed air and gas system
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	145	Maintain compressed air and gas system
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	146	Repair compressed air and gas system
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	147	Evaluate potential to conserve compressed air/gas
FACILITY MAINTENANCE AND REPAIRS	Maintain Compressed Air and Gas System	148	Conserve compressed air/gas
FINANCIAL MANAGEMENT	Manage Finances	149	Develop budget
FINANCIAL MANAGEMENT	Manage Finances	150	Forecast Food Safety and Quality Assurance (FSQA) expenditures
FINANCIAL MANAGEMENT	Manage Finances	151	Monitor budget performance
FINANCIAL MANAGEMENT	Manage Finances	152	Monitor production line's budget performance
FINANCIAL MANAGEMENT	Manage Finances	153	Develop product costing
FINANCIAL MANAGEMENT	Manage Finances	154	Manage cash flow
FINANCIAL MANAGEMENT	Manage Finances	155	Generate financial reports
FINANCIAL MANAGEMENT	Manage Finances	156	Obtain alternative sources of funds
FINANCIAL MANAGEMENT	Complete Financial Tasks	157	Process payroll
FINANCIAL MANAGEMENT	Complete Financial Tasks	158	Administer benefits
FINANCIAL MANAGEMENT	Complete Financial Tasks	159	Process receivables
FINANCIAL MANAGEMENT	Complete Financial Tasks	160	Process payables

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
FISH PROCESSING	Dress Fish	161	Manually scale fish
FISH PROCESSING	Dress Fish	162	Operate automated systems to scale fish
FISH PROCESSING	Dress Fish	163	Manually gut fish
FISH PROCESSING	Dress Fish	164	Operate automated systems to gut fish
FISH PROCESSING	Dress Fish	165	Manually de-head fish
FISH PROCESSING	Dress Fish	166	Operate automated systems to de-head fish
FISH PROCESSING	Dress Fish	167	Manually trim fish
FISH PROCESSING	Dress Fish	168	Operate automated systems to trim fish
FISH PROCESSING	Dress Fish	169	Operate automated systems to skin fish
FISH PROCESSING	Dress Fish	170	Debone fish
FISH PROCESSING	Portion Fish	171	Manually steak-cut whole fish
FISH PROCESSING	Portion Fish	172	Manually fillet round-body fish
FISH PROCESSING	Portion Fish	173	Manually fillet flat-body fish
FISH PROCESSING	Portion Fish	174	Operate automated systems to fillet fish
FISH PROCESSING	Portion Fish	175	Manually portion fish fillets
FISH PROCESSING	Portion Fish	176	Operate automated systems to portion fish
FISH PROCESSING	Portion Fish	177	Operate automated systems to mince fish or offal
FOOD PACKAGING	Package Product	178	Prepare packaging materials
FOOD PACKAGING	Package Product	179	Portion/Weigh product
FOOD PACKAGING	Package Product	180	Fill and seal packages
FOOD PACKAGING	Package Product	181	Bottle/can in-process products
FOOD PACKAGING	Package Product	182	Label products
FOOD PACKAGING	Package Product	183	Tray/Box products
FOOD PACKAGING	Package Product	184	Palletize products
FOOD PACKAGING	Package Product	185	Perform packaging materials changeover
FOOD PACKAGING	Package Product	186	Perform packaging equipment change over
FOOD PACKAGING	Package Product	187	Operate aseptic packaging system
FOOD PROCESSING	Prepare Raw Materials/In-process Products	188	Thaw/Break-up ingredients/products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	189	Clean raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	190	Prepare surfaces of raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	191	Size raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	192	Shape raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	193	Crush/Grind raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	194	Separate/Filter/Press raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	195	Emulsify raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	196	Dry/Dehydrate raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	197	Re-hydrate raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	198	Sort/Categorize/Grade raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	199	Chill/Freeze raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	200	Age raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	201	Sterilize/Pasteurize raw materials/in-process products
FOOD PROCESSING	Prepare Raw Materials/In-process Products	202	Marinade/Tenderize tougher meat cuts
FOOD PROCESSING	Prepare Raw Materials/In-process Products	203	Temper chocolate
FOOD PROCESSING	Prepare Raw Materials/In-process Products	204	Brine-freeze crustaceans
FOOD PROCESSING	Prepare Raw Materials/In-process Products	205	Freeze fish, crustaceans and mollusks

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FOOD PROCESSING	Prepare Raw Materials/In-process Products	206	Pasteurize mussels
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	207	Batch raw materials/in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	208	Mix/Blend raw materials/in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	209	Knead dough
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	210	Add seasonings, flavourings and other additives
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	211	Bread/Batter/Sauce in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	212	Ferment/Proof/Cure in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	213	Cook in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	214	Smoke in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	215	Add CO2 to raw materials/in-process products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	216	Fill/stuff/encrust/wrap in-process materials
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	217	Assemble/Finish products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	218	Salt Fish
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	219	Retort food products
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	220	Cook crustaceans/mollusks
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	221	Cool crustaceans/mollusks
FOOD PROCESSING	Transform Raw Materials/ In-Process Products	222	Blanch crustaceans
FOOD PRODUCTION MANAGEMENT	Plan for Equipment	223	Design plant equipment layout
FOOD PRODUCTION MANAGEMENT	Plan for Equipment	224	Provide input for food processing equipment purchases
FOOD PRODUCTION MANAGEMENT	Plan for Equipment	225	Define process capacity
FOOD PRODUCTION MANAGEMENT	Install Equipment	226	Install equipment
FOOD PRODUCTION MANAGEMENT	Install Equipment	227	Commission equipment
FOOD PRODUCTION MANAGEMENT	Set Strategic Direction for Food Production	228	Develop production plan
FOOD PRODUCTION MANAGEMENT	Set Strategic Direction for Food Production	229	Develop production schedule
FOOD PRODUCTION MANAGEMENT	Set Strategic Direction for Food Production	230	Review production reports
FOOD PRODUCTION MANAGEMENT	Set Strategic Direction for Food Production	231	Predict yield for cheese-making
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	232	Monitor production workflow
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	233	Monitor yield
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	234	Manage production problems
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	235	Adjust production workflow
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	236	Implement food processing changeovers
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	237	Implement strategies to maximize personnel and equipment use
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	238	Assess availability of raw materials and packaging supplies
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	239	Support improvement of manufacturing processes
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	240	Support use of excess raw materials and by-products
FOOD PRODUCTION MANAGEMENT	Implement Production Plan	241	Prepare production reports
FOOD PRODUCTION MANAGEMENT	Monitor Dairy Product Processing Environment	242	Monitor cheese-making production environment
FOOD PRODUCTION MANAGEMENT	Monitor Storage Conditions of In-Process Fish and Seafood	243	Monitor storage conditions of in-process fish and seafood
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	244	Develop prerequisite program for premises
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	245	Develop prerequisite program for transport, storage, purchasing, shipping and receiving
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	246	Develop prerequisite program for equipment and preventative maintenance
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	247	Develop prerequisite program for personnel and training
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	248	Develop prerequisite program for sanitation and pest control
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	249	Develop prerequisite program for recalls
FOOD SAFETY MANAGEMENT SYSTEM	Develop Prerequisite Programs and Supporting Documentation	250	Develop prerequisite program for other operational control programs

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	251	Assemble team
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	252	Describe products and intended uses
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	253	Create process flow diagram and plant schematic
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	254	Verify process flow and plant schematic
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	255	Conduct hazard analysis
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	256	Determine critical control points
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	257	Establish critical limits
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	258	Establish procedures to monitor each critical control point (CCP)
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	259	Establish procedures to take corrective action
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	260	Establish verification and validation procedures
FOOD SAFETY MANAGEMENT SYSTEM	Develop HACCP Plan(s) or Equivalent Food Safety Plan(s)	261	Establish record keeping and documentation control procedures
FOOD SAFETY MANAGEMENT SYSTEM	Develop Food Defense Plan	262	Develop food defense plan
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	263	Communicate food safety management systems to management staff
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	264	Verify food safety programs and tasks are being completed as required
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	265	Review and validate food safety management system
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	266	Update program documentation
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	267	Communicate details of food safety management systems to production staff
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	268	Participate in food safety incident investigations
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Safety Management System	269	Coordinate food safety incident investigations
FOOD SAFETY MANAGEMENT SYSTEM	Implement Food Defense Plan	270	Implement food defense plan
FOOD SAFETY MANAGEMENT SYSTEM	Support Organizational Food Safety Culture	271	Establish organizational food safety culture
FOOD SAFETY MANAGEMENT SYSTEM	Support Organizational Food Safety Culture	272	Support organizational food safety culture
FOOD SAFETY MANAGEMENT SYSTEM	Comply with Food Safety Management System	273	Comply with food safety management system
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	274	Develop system to manage audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	275	Develop tracking tool(S)
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	276	Prepare for audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	277	Participate in audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	278	Prepare for internal audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	279	Conduct internal audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	280	Oversee external audits
FOOD SAFETY MANAGEMENT SYSTEM	Manage Audits	281	Oversee audit follow-up
FOOD TRACEABILITY	Manage Food Traceability	282	Create traceability system
FOOD TRACEABILITY	Manage Food Traceability	283	Implement food traceability system
FOOD TRACEABILITY	Manage Food Traceability	284	Maintain food traceability program
FOOD TRACEABILITY	Manage Food Traceability	285	Monitor food traceability on production line
FOOD TRACEABILITY	Comply with Food Traceability system	286	Comply with food traceability system
HEALTH AND SAFETY	Manage Occupational Health and Safety Program	287	Develop occupational health and safety program
HEALTH AND SAFETY	Manage Occupational Health and Safety Program	288	Lead emergency preparation
HEALTH AND SAFETY	Manage Occupational Health and Safety Program	289	Conduct safety inspections
HEALTH AND SAFETY	Manage Occupational Health and Safety Program	290	Evaluate occupational health and safety program
HEALTH AND SAFETY	Manage Occupational Health and Safety Program	291	Conduct safety inspections on production line
HEALTH AND SAFETY	Comply with Occupational Health and Safety Program	292	Follow occupational health and safety program
HEALTH AND SAFETY	Comply with Occupational Health and Safety Program	293	Participate in emergency preparation
HEALTH AND SAFETY	Comply with Occupational Health and Safety Program	294	Direct accident/incident investigations
HEALTH AND SAFETY	Comply with Occupational Health and Safety Program	295	Participate in accident/incident investigations

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
HEALTH AND SAFETY	Manage Facility Security	296	Develop facility security system
HEALTH AND SAFETY	Manage Facility Security	297	Conduct security exercises and drills
HEALTH AND SAFETY	Manage Facility Security	298	Monitor adherence to facility security program
HEALTH AND SAFETY	Comply with Facility Security Program	299	Follow facility security program
HEALTH AND SAFETY	Comply with Facility Security Program	300	Participate in security exercises and drills
HEALTH AND SAFETY	Manage Worker's Compensation	301	Administer Worker's Compensation account
HEALTH AND SAFETY	Manage Worker's Compensation	302	Manage Worker's Compensation claims
INFORMATION TECHNOLOGY (IT) SYSTEMS	Set Strategic Direction of IT Systems	303	Develop IT plan
INFORMATION TECHNOLOGY (IT) SYSTEMS	Set Strategic Direction of IT Systems	304	Develop IT policies and procedures
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	305	Conduct incoming inspections
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	306	Conduct pre-operational inspections
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	307	Monitor use of tools and equipment
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	308	Monitor Critical Control Points
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	309	Conduct changeover inspection
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	310	Conduct storage inspection
INSPECTIONS AND PRODUCT TESTING	Conduct Inspections	311	Conduct outgoing inspections
INSPECTIONS AND PRODUCT TESTING	Oversee Inspections and Product Testing	312	Oversee inspections and product testing
INSPECTIONS AND PRODUCT TESTING	Conduct Product Tests	313	Conduct organoleptic (visual, touch, smell taste) product testing
INSPECTIONS AND PRODUCT TESTING	Conduct Product Tests	314	Conduct microbiological product sampling
INSPECTIONS AND PRODUCT TESTING	Conduct Product Tests	315	Conduct analytical product testing
INSPECTIONS AND PRODUCT TESTING	Conduct Product Tests	316	Conduct allergen sampling of finished products
LEADERSHIP	Provide Leadership	317	Develop strategic vision
LEADERSHIP	Provide Leadership	318	Develop organizational sustainability plan
LEADERSHIP	Provide Leadership	319	Develop action plans
LEADERSHIP	Provide Leadership	320	Implement action plans
LEADERSHIP	Provide Leadership	321	Delegate tasks
LEADERSHIP	Manage Organizational Change	322	Promote continuous improvement
LEADERSHIP	Manage Organizational Change	323	Develop change management plan
LEADERSHIP	Manage Organizational Change	324	Develop Food Safety and Quality Assurance (FSQA) change management plan
LEADERSHIP	Manage Organizational Change	325	Implement organizational change
LEADERSHIP	Manage Organizational Change	326	Support organizational change
LEADERSHIP	Demonstrate Professionalism	327	Facilitate collaboration of work teams
LEADERSHIP	Demonstrate Professionalism	328	Collaborate with team members
LEADERSHIP	Demonstrate Professionalism	329	Develop professionally
LEADERSHIP	Demonstrate Professionalism	330	Exhibit professional and ethical conduct
LEADERSHIP	Demonstrate Professionalism	331	Mentor/coach others
LEADERSHIP	Demonstrate Professionalism	332	Manage own stress
LEADERSHIP	Demonstrate Professionalism	333	Manage own time
LEADERSHIP	Demonstrate Professionalism	334	Contribute to a solution-focused workplace
LEADERSHIP	Demonstrate Professionalism	335	Collaborate with external organizations/agencies
LOGISTICS	Manage Inventory	336	Establish inventory system
LOGISTICS	Manage Inventory	337	Maintain inventory system
LOGISTICS	Manage Inventory	338	Manage problem inventory
LOGISTICS	Manage Inventory	339	Complete Cycle Counts
LOGISTICS	Handle Inventory	340	Pick and pack orders

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
LOGISTICS	Handle Inventory	341	Prepare product for shipping
LOGISTICS	Handle Inventory	342	Load product
LOGISTICS	Handle Inventory	343	Receive product
LOGISTICS	Handle Inventory	344	Unload product
LOGISTICS	Handle Inventory	345	Provide inventory to production
LOGISTICS	Handle Inventory	346	Follow storage procedures
LOGISTICS	Handle Inventory	347	Receive live fish and seafood
LOGISTICS	Manage Warehouse	348	Plan warehouse operations
LOGISTICS	Manage Warehouse	349	Develop warehouse plan
LOGISTICS	Manage Warehouse	350	Oversee warehouse operations
LOGISTICS	Manage Transportation	351	Design transportation network
LOGISTICS	Manage Transportation	352	Determine carrier requirements
LOGISTICS	Manage Transportation	353	Select carrier
LOGISTICS	Manage Transportation	354	Obtain transportation insurance
MARKETING	Set Strategic Direction for Marketing	355	Conduct situational analysis
MARKETING	Set Strategic Direction for Marketing	356	Develop integrated marketing strategy
MARKETING	Set Strategic Direction for Marketing	357	Develop branding
MARKETING	Set Strategic Direction for Marketing	358	Develop pricing strategy
MARKETING	Set Strategic Direction for Marketing	359	Monitor implementation of marketing strategy
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	360	Provide information about products and services
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	361	Advertise products and services
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	362	Produce marketing/promotional materials
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	363	Distribute marketing/promotional materials
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	364	Develop marketing/promotional events
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	365	Oversee promotional events
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	366	Develop online presence
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	367	Develop contests
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	368	Develop trade sales promotions
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	369	Participate in industry shows
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	370	Conduct public relations activities
MARKETING	Execute Marketing, Public Relations and Media Relations Strategies	371	Manage crises and controversies
MEAT ANIMAL SLAUGHTERING	Prepare Animals for Dressing and Evisceration	372	Receive animals
MEAT ANIMAL SLAUGHTERING	Prepare Animals for Dressing and Evisceration	373	Slaughter animals
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	374	Prepare surfaces of slaughtered animals
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	375	Eviscerate slaughtered beef/veal
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	376	Eviscerate slaughtered pork
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	377	Eviscerate slaughtered lamb and other small ruminants
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	378	Eviscerate slaughtered farmed game animals
MEAT ANIMAL SLAUGHTERING	Dress and Eviscerate Animals	379	Clean carcasses
MEAT CUTTING	Use Meat Cutting Techniques	380	Use required cutting method
MEAT CUTTING	Use Meat Cutting Techniques	381	Size meat cuts
MEAT CUTTING	Use Meat Cutting Techniques	382	Shape meat cuts
MEAT CUTTING	Use Meat Cutting Techniques	383	Produce ground meat
MEAT CUTTING	Fabricate Meat Cuts for Beef/Veal	384	Breakdown beef/veal carcass into primal cuts
MEAT CUTTING	Fabricate Meat Cuts for Beef/Veal	385	Cut beef/veal sub-primal cuts

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
MEAT CUTTING	Fabricate Meat Cuts for Beef/Veal	386	Cut beef/veal retail cuts
MEAT CUTTING	Fabricate Meat Cuts for Pork	387	Breakdown pork carcass into primal cuts
MEAT CUTTING	Fabricate Meat Cuts for Pork	388	Cut pork sub-primal cuts
MEAT CUTTING	Fabricate Meat Cuts for Pork	389	Cut pork retail cuts
MEAT CUTTING	Fabricate Meat Cuts for Lamb	390	Breakdown lamb carcass into primal cuts
MEAT CUTTING	Fabricate Meat Cuts for Lamb	391	Cut lamb retail cuts
MEAT CUTTING	Fabricate Meat Cuts for Farmed Game Animals	392	Breakdown farmed games carcass into primal cuts
MEAT CUTTING	Fabricate Meat Cuts for Farmed Game Animals	393	Cut farmed game into retail cuts
MOLLUSK PROCESSING	Process Mussels	394	Strip mussels
MOLLUSK PROCESSING	Process Mussels	395	Prepare mussels for wet storage
MOLLUSK PROCESSING	Process Mussels	396	De-clump mussels
MOLLUSK PROCESSING	Process Mussels	397	De-byss mussels
MOLLUSK PROCESSING	Process Clams	398	Shuck clams
MOLLUSK PROCESSING	Process Clams	399	Separate clams
MOLLUSK PROCESSING	Process Oysters	400	Grade wild oysters
MOLLUSK PROCESSING	Process Oysters	401	Process wild and farmed oysters
MOLLUSK PROCESSING	Process Scallops	402	Prepare raw scallops
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Legislation/Regulations	403	Determine applicable legislation/regulations
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Legislation/Regulations	404	Assist regulatory agents/inspectors
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Legislation/Regulations	405	Interact with regulatory agents/inspectors
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Organizational Policies and Procedures	406	Develop organizational policies
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Organizational Policies and Procedures	407	Develop Standard Operating Procedures (SOPs)
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Organizational Policies and Procedures	408	Implement organizational policies and SOPs
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Organizational Policies and Procedures	409	Comply with organizational policies and procedures/SOPs
ORGANIZATIONAL POLICIES AND PROCEDURES	Comply with Organizational Policies and Procedures	410	Oversee staff compliance with organizational policies and SOPs
PEST CONTROL	Manage Facility Pest Control Program	411	Develop pest control program
PEST CONTROL	Manage Facility Pest Control Program	412	Implement facility pest control program
PEST CONTROL	Manage Facility Pest Control Program	413	Monitor facility pest control program
PEST CONTROL	Manage Facility Pest Control Program	414	Oversee staff compliance with pest control program
PEST CONTROL	Comply with Facility Pest Control Program	415	Comply with facility pest control program
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	416	Receive poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	417	Hang poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	418	Stun poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	419	Manually slaughter poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	420	Monitor automated poultry and game bird slaughtering system
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	421	Monitor automated systems to prepare poultry/game bird carcasses for evisceration
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	422	Monitor automated hock removal system
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	423	Eviscerate poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	424	Monitor automated poultry and game bird evisceration systems
POULTRY AND GAME BIRD PROCESSING	Slaughter Poultry and Game Birds	425	Chill cleaned poultry and game bird carcasses
POULTRY AND GAME BIRD PROCESSING	Fabricate Retail and Specialty Cuts for Poultry and Game Birds	426	Manually cut poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Fabricate Retail and Specialty Cuts for Poultry and Game Birds	427	Monitor automated systems to cut poultry and game birds
POULTRY AND GAME BIRD PROCESSING	Fabricate Retail and Specialty Cuts for Poultry and Game Birds	428	Produce ground poultry meat
PURCHASING	Manage Purchasing	429	Research suppliers and prices
PURCHASING	Manage Purchasing	430	Choose suppliers

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
PURCHASING	Manage Purchasing	431	Oversee purchasing process
PURCHASING	Manage Purchasing	432	Issue claims to suppliers
PURCHASING	Complete Purchasing Tasks	433	Complete purchasing tasks
QUALITY MANAGEMENT	Develop Quality Management Systems	434	Develop quality manual
QUALITY MANAGEMENT	Develop Quality Management Systems	435	Benchmark best practices
QUALITY MANAGEMENT	Develop Quality Management Systems	436	Create deviation management system
QUALITY MANAGEMENT	Develop Quality Management Systems	437	Create corrective and preventative action (CAPA) system
QUALITY MANAGEMENT	Develop Quality Management Systems	438	Create complaint and inquiry system
QUALITY MANAGEMENT	Develop Quality Management Systems	439	Communicate quality assessment outcomes
QUALITY MANAGEMENT	Implement Quality Management System	440	Communicate quality management systems to management and staff
QUALITY MANAGEMENT	Implement Quality Management System	441	Monitor quality management systems
QUALITY MANAGEMENT	Implement Quality Management System	442	Collaborate with product development team
QUALITY MANAGEMENT	Implement Quality Management System	443	Communicate details of quality management system to production staff
QUALITY MANAGEMENT	Implement Quality Management System	444	Liaise with production staff regarding quality management
QUALITY MANAGEMENT	Implement Quality Management System	445	Provide input into improving quality on the production line
QUALITY MANAGEMENT	Monitor Product Quality	446	Monitor quality of raw ingredients and in-process products
QUALITY MANAGEMENT	Monitor Product Quality	447	Monitor quality of raw meat
QUALITY MANAGEMENT	Monitor Product Quality	448	Grade/Inspect finished products
QUALITY MANAGEMENT	Monitor Product Quality	449	Inspect finished meat, game and poultry products
QUALITY MANAGEMENT	Monitor Product Quality	450	Monitor foreign body detection and removal equipment
QUALITY MANAGEMENT	Monitor Product Quality	451	Take corrective action to ensure product quality
QUALITY MANAGEMENT	Monitor Product Quality	452	Handle product non-conformances
QUALITY MANAGEMENT	Monitor Product Quality	453	Grade/Inspect fish and seafood
QUALITY MANAGEMENT	Monitor Product Quality	454	Monitor quality of raw poultry and game birds
QUALITY MANAGEMENT	Monitor Product Quality	455	Grade/inspect fresh poultry and game bird carcasses
QUALITY MANAGEMENT	Monitor Product Packaging	456	Monitor quality of packaging
RECALLS	Manage Recalls	457	Develop recall plan
RECALLS	Manage Recalls	458	Manage recall
RECALLS	Follow Recall Plan	459	Follow recall plan
RECORD MANAGEMENT	Manage Record Management	460	Establish record management policies and procedures
RECORD MANAGEMENT	Manage Record Management	461	Monitor organization's record management systems
RECORD MANAGEMENT	Manage Record Management	462	Monitor department's record management system
RECORD MANAGEMENT	Manage Record Management	463	Monitor production line's record management
RECORD MANAGEMENT	Manage Record Management	464	Monitor Food Safety and Quality Assurance (FSQA) record management systems
RECORD MANAGEMENT	Complete Record Management Tasks	465	Keep records up-to-date
RECORD MANAGEMENT	Complete Record Management Tasks	466	Complete forms
RESEARCH AND DEVELOPMENT	Develop New Products	467	Manage new product development projects
RESEARCH AND DEVELOPMENT	Develop New Products	468	Research consumer markets
RESEARCH AND DEVELOPMENT	Develop New Products	469	Develop new product concepts
RESEARCH AND DEVELOPMENT	Develop New Products	470	Develop bench-top prototypes
RESEARCH AND DEVELOPMENT	Conduct Experiments and Tests	471	Conduct shelf-life studies
RESEARCH AND DEVELOPMENT	Conduct Experiments and Tests	472	Conduct microbiological challenge tests
RESEARCH AND DEVELOPMENT	Conduct Experiments and Tests	473	Conduct nutritional analyses
RESEARCH AND DEVELOPMENT	Conduct Experiments and Tests	474	Experiment with new food additives
RESEARCH AND DEVELOPMENT	Conduct Experiments and Tests	475	Conduct sensory analyses

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
RESEARCH AND DEVELOPMENT	Conduct Trials	476	Complete plant scale-ups
RESEARCH AND DEVELOPMENT	Conduct Trials	477	Analyze trial results
RESEARCH AND DEVELOPMENT	Commercialize Products	478	Provide input for equipment scoping and processes
RESEARCH AND DEVELOPMENT	Commercialize Products	479	Provide input into nutritional labelling
RESEARCH AND DEVELOPMENT	Commercialize Products	480	Provide input into product packaging
RESEARCH AND DEVELOPMENT	Improve Existing Products and Processes	481	Develop value-added products and processes
RESEARCH AND DEVELOPMENT	Improve Existing Products and Processes	482	Provide input into innovative uses for excess raw materials and by-products
RESEARCH AND DEVELOPMENT	Improve Existing Products and Processes	483	Provide input into cost optimization
RESEARCH AND DEVELOPMENT	Improve Existing Products and Processes	484	Provide input into improving manufacturing processes
RESEARCH AND DEVELOPMENT	Improve Existing Products and Processes	485	Provide input into product development and improvement
RISK MANAGEMENT	Manage Risk	486	Analyze risks of domestic operations
RISK MANAGEMENT	Manage Risk	487	Analyze risks of international operations
RISK MANAGEMENT	Manage Risk	488	Develop risk management plans
RISK MANAGEMENT	Manage Risk	489	Implement risk management plan
RISK MANAGEMENT	Manage Risk	490	Monitor implementation of risk management plan
SALES AND CLIENT RELATIONS	Manage Sales and Client Relations	491	Develop sales plan
SALES AND CLIENT RELATIONS	Manage Sales and Client Relations	492	Monitor sales plan
SALES AND CLIENT RELATIONS	Maintain Client Relationships	493	Provide customer service
SALES AND CLIENT RELATIONS	Maintain Client Relationships	494	Handle customer concerns or complaints
SALES AND CLIENT RELATIONS	Sell Products and Services	495	Qualify customer
SALES AND CLIENT RELATIONS	Sell Products and Services	496	Conduct sales calls and presentations
SALES AND CLIENT RELATIONS	Sell Products and Services	497	Overcome customer objections
SALES AND CLIENT RELATIONS	Sell Products and Services	498	Develop quotes
SALES AND CLIENT RELATIONS	Sell Products and Services	499	Close sales
SALES AND CLIENT RELATIONS	Sell Products and Services	500	Process sales
SALES AND CLIENT RELATIONS	Sell Products and Services	501	Follow up on sales
SANITATION	Handle and Prepare Chemicals	502	Prepare cleaning chemicals
SANITATION	Handle and Prepare Chemicals	503	Prepare sanitizer
SANITATION	Handle and Prepare Chemicals	504	Prepare chemical concentrations
SANITATION	Handle and Prepare Chemicals	505	Handle chemicals
SANITATION	Handle and Prepare Chemicals	506	Store chemicals
SANITATION	Handle and Prepare Chemicals	507	Manage chemical accidents
SANITATION	Handle and Prepare Chemicals	508	Conduct chemical risk assessment
SANITATION	Handle and Prepare Chemicals	509	Implement control measures
SANITATION	Handle and Prepare Chemicals	510	Develop chemical safety program
SANITATION	Clean Food Processing Equipment and Tools	511	Prepare for cleaning
SANITATION	Clean Food Processing Equipment and Tools	512	Conduct daily cleaning for food processing equipment and tools
SANITATION	Clean Food Processing Equipment and Tools	513	Deep clean food processing equipment and tools
SANITATION	Clean Food Processing Equipment and Tools	514	Verify food processing equipment, tools and work surface cleanliness
SANITATION	Clean Food Processing Equipment and Tools	515	Clean food processing equipment and tools out of place
SANITATION	Clean Food Processing Equipment and Tools	516	Prepare value-added meat processing equipment for cleaning and sanitizing
SANITATION	Clean Food Processing Equipment and Tools	517	Prepare bakery processing equipment for cleaning and sanitization
SANITATION	Sanitize Food Processing Equipment and Tools	518	Prepare for daily sanitizing of food processing equipment and tools
SANITATION	Sanitize Food Processing Equipment and Tools	519	Perform daily sanitizing of food processing equipment and tools
SANITATION	Sanitize Food Processing Equipment and Tools	520	Prepare for detailed sanitizing

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
SANITATION	Sanitize Food Processing Equipment and Tools	521	Conduct detailed sanitizing of food processing equipment and tools
SANITATION	Sanitize Food Processing Equipment and Tools	522	Sanitize fish & seafood work stations
SANITATION	Oversee Facility Cleanliness	523	Develop facility cleaning processes
SANITATION	Oversee Facility Cleanliness	524	Verify cleaning process
SANITATION	Oversee Facility Cleanliness	525	Monitor facility cleaning processes
SANITATION	Oversee Facility Cleanliness	526	Monitor cleaning processes on production line
SANITATION	Oversee Facility Cleanliness	527	Evaluate facility cleaning processes
SANITATION	Clean Facility	528	Clean facility
SANITATION	Clean Facility	529	Operate cleaning machinery and equipment
SANITATION	Clean Facility	530	Maintain cleaning machinery and equipment
SANITATION	Sanitize Facility	531	Develop facility sanitizing procedures
SANITATION	Sanitize Facility	532	Sanitize facility
SANITATION	Sanitize Facility	533	Monitor facility sanitizing processes
SANITATION	Sanitize Facility	534	Monitor sanitizing processes on production line
SANITATION	Implement Environmental Monitoring Process	535	Develop facility environmental monitoring process
SANITATION	Implement Environmental Monitoring Process	536	Conduct organoleptic inspection
SANITATION	Implement Environmental Monitoring Process	537	Conduct ATP hygiene monitoring
SANITATION	Implement Environmental Monitoring Process	538	Conduct microbiological sampling
SANITATION	Clean Closed Systems/Clean-in-Place (CIP)	539	Prepare CIP system for cleaning
SANITATION	Clean Closed Systems/Clean-in-Place (CIP)	540	Monitor CIP system
SANITATION	Clean Immediate Work Environment	541	Clean immediate work environment
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	542	Eviscerate sea cucumbers
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	543	Cook in-process sea cucumbers
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	544	Dry/dehydrate sea cucumbers
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	545	Brine-freeze sea cucumbers
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	546	Freeze sea cucumbers
SEA CUCUMBER PROCESSING	Process Sea Cucumbers	547	Grade whole, dried sea cucumbers
VALUE-ADDED MEAT PRODUCT FABRICATION	Prepare Raw Meat Material and Other Ingredients for Value-Added Meat Products	548	Thaw/temper frozen raw meat material
VALUE-ADDED MEAT PRODUCT FABRICATION	Prepare Raw Meat Material and Other Ingredients for Value-Added Meat Products	549	Grind/flake/chop meat or meat by-products for value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Prepare Raw Meat Material and Other Ingredients for Value-Added Meat Products	550	Prepare non-meat ingredients/meat by-products for value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Prepare Raw Meat Material and Other Ingredients for Value-Added Meat Products	551	Mix/blend raw meat material/meat by-products and non-meat ingredients
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	552	Brine/marinate value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	553	Coat value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	554	Stuff value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	555	Cure/ferment value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	556	Dry value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	557	Shape value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	558	Smoke value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	559	Cook value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	560	Chill/freeze value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Use Value-Added Meat Production Techniques	561	Slice/cube finished value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Produce Value-Added Meat Products	562	Prepare whole muscle value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Produce Value-Added Meat Products	563	Prepare restructured value-added meat products
VALUE-ADDED MEAT PRODUCT FABRICATION	Produce Value-Added Meat Products	564	Prepare ground meat value-added products
VALUE-ADDED MEAT PRODUCT FABRICATION	Produce Value-Added Meat Products	565	Prepare sausages

Major Task/Skill/Competency Category (Alphabetically)	Task/Skill/Competency Sub-category	#	Tasks/Skills/Competency Names
VALUE-ADDED MEAT PRODUCT FABRICATION	Produce Value-Added Meat Products	566	Prepare fine comminuted/emulsified value-added meat products
WASTE MANAGEMENT	Manage Recycling Activities	567	Develop facility-wide recycling program
WASTE MANAGEMENT	Manage Recycling Activities	568	Implement recyclable collection program
WASTE MANAGEMENT	Manage Recycling Activities	569	Manage recycling program
WASTE MANAGEMENT	Manage Recycling Activities	570	Oversee staff compliance with recycling program
WASTE MANAGEMENT	Comply with Recycling Program	571	Comply with recycling program
WASTE MANAGEMENT	Manage Facility Waste (Solid and Liquid)	572	Develop facility waste management program
WASTE MANAGEMENT	Manage Facility Waste (Solid and Liquid)	573	Monitor facility waste management activities
WASTE MANAGEMENT	Manage Facility Waste (Solid and Liquid)	574	Oversee staff compliance with facility waste management program
WASTE MANAGEMENT	Comply with Facility Waste Management Program	575	Comply with facility waste management program
WASTE MANAGEMENT	Comply with Facility Waste Management Program	576	Complete facility waste collection activities
WASTE MANAGEMENT	Comply with Facility Waste Management Program	577	Handle hazardous waste
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	578	Develop HR Plan
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	579	Develop succession plan
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	580	Allocate Human Resources
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	581	Develop compensation packages
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	582	Monitor implementation of HR plan
WORKFORCE MANAGEMENT	Set Strategic Direction for Workforce	583	Manage Diversity in the Workplace
WORKFORCE MANAGEMENT	Hire Staff	584	Provide input for job descriptions
WORKFORCE MANAGEMENT	Hire Staff	585	Develop job descriptions
WORKFORCE MANAGEMENT	Hire Staff	586	Assist with staff recruitment
WORKFORCE MANAGEMENT	Hire Staff	587	Recruit staff
WORKFORCE MANAGEMENT	Hire Staff	588	Screen candidates
WORKFORCE MANAGEMENT	Hire Staff	589	Interview candidates
WORKFORCE MANAGEMENT	Hire Staff	590	Hire employees
WORKFORCE MANAGEMENT	Train Staff	591	Develop or revise employee resources
WORKFORCE MANAGEMENT	Train Staff	592	Provide orientation to new staff
WORKFORCE MANAGEMENT	Train Staff	593	Plan training
WORKFORCE MANAGEMENT	Train Staff	594	Conduct training
WORKFORCE MANAGEMENT	Train Staff	595	Conduct one-on-one training
WORKFORCE MANAGEMENT	Monitor Staff Performance	596	Build a respectful workplace
WORKFORCE MANAGEMENT	Monitor Staff Performance	597	Maintain positive work environment
WORKFORCE MANAGEMENT	Monitor Staff Performance	598	Motivate staff
WORKFORCE MANAGEMENT	Monitor Staff Performance	599	Supervise staff on modified work duties
WORKFORCE MANAGEMENT	Monitor Staff Performance	600	Schedule staff
WORKFORCE MANAGEMENT	Monitor Staff Performance	601	Conduct Performance Reviews
WORKFORCE MANAGEMENT	Monitor Staff Performance	602	Address Performance Issues
WORKFORCE MANAGEMENT	Monitor Staff Performance	603	Promote staff
WORKFORCE MANAGEMENT	Facilitate Staff Departures	604	Dismiss Staff
WORKFORCE MANAGEMENT	Facilitate Staff Departures	605	Lay off Staff
WORKFORCE MANAGEMENT	Facilitate Staff Departures	606	Process Resignations
WORKFORCE MANAGEMENT	Manage Within a Union Environment	607	Comply with collective agreement
WORKFORCE MANAGEMENT	Manage within a Union Environment	608	Respond to grievances
WORKFORCE MANAGEMENT	Manage within a Union Environment	609	Maintain professional relationship with union
WORKFORCE MANAGEMENT	Manage within a Union Environment	610	Participate in Collective Bargaining

APPENDIX C
METHODOLOGY USED TO DEVELOP NATIONAL OCCUPATIONAL STANDARDS

National occupational standards (NOS) are voluntary. They are developed with a national objective and require pan-Canadian validation and endorsement to enable the recognition of qualifications across Canada. Quality NOS developed with both a sectoral and pan-labour market objective enable the recognition of workers' knowledge and skills across the entire Canadian labour market and facilitate labour mobility across Canadian sectors. Identifying and recognizing transferable knowledge and skills that can be applied within a variety of sectors and/or positions within a sector is especially important to individuals who are changing careers or have little work-related experience. Labour mobility within Canada allows workers to be employed in different provinces and territories, resulting in more choices and opportunities for workers and a broader selection of candidates for employers. NOS not only facilities labour mobility within Canada, but also provide information that is essential to recognize foreign credentials effectively and to enable foreign-trained workers to enter the Canadian workforce[1].

A rigorous methodology involving research and stakeholder consultation is used to set the competencies. The first phase involved extensive research, including review of hundreds of existing standards, norms, curricula, job descriptions, etc. from Canada and around the world, resulting in a detailed dictionary of competencies for food safety. The second phase involved extensive consultations with 160 stakeholders through focus group, phone interviews, surveys and editorial reiterations. Stakeholders consulted are subject matter experts, highly experienced food safety professionals, representing a broad range of individuals working in food processing from across Canada.

Planning and establishing a stakeholder engagement strategy	Approached experience practitioners with a wide representation of plant sizes and geographical location
Researching and analyzing documentation	Reviewed existing competency framework charts, training program outlines, research papers and websites
Benchmarking	Benchmarked against standards to foreign qualifications and occupational standards
Creating, developing and validating the competency framework	Conducted face-to-face focus groups, phone interviews and follow up communication to create the NOS
Conducting further consultation	Conducted a survey to determine the relevance, importance and frequency rating of each task included in the standard
Ratification of standard by the National Advisory Committee	Conducted a final online validation national survey

[1] Former Alliance of Sector Councils (TASC), Setting the Standards, Accepted Principles and Practices for National Occupational Standards, Certification Programs, and Accreditation Programs, 2010

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