
Meat Facility Standards

Table of Contents

Section 1 Introduction	4
Section 2 Responsibilities of the Operator	5
Section A Premises	6
A 1 Building Exterior	6
<i>A 1.1 Outside Property and Building</i>	6
A 2 Building Interior	7
<i>A 2.1 Design, Construction and Maintenance</i>	7
<i>A 2.2 Lighting</i>	8
<i>A 2.3 Ventilation</i>	8
<i>A 2.4 Waste Disposal</i>	8
<i>A 2.5 Inedible Room</i>	8
A 3 Welfare Areas	9
<i>A 3.1 Employee Welfare Areas</i>	9
<i>A 3.2 Cleaning and Sanitizing</i>	9
A 4 Water/Ice Quality and Supply	9
<i>A 4.1 Water/Ice</i>	9
Section B Transportation and Storage	11
B 1 Transportation	11
<i>B 1.1 Food Carriers</i>	11
<i>B 1.2 Temperature Control</i>	12
B 2 Receiving and Storage	12
<i>B 2.1 Incoming Material Receiving and Storage</i>	12
<i>B 2.2 Non-Food Chemical Receiving and Storage</i>	12
<i>B 2.3 Product Storage</i>	13
Section C Equipment	14
C 1 General Equipment	14
<i>C 1.1 Design and Installation</i>	14
<i>C 1.2 Equipment Maintenance and Calibration</i>	15
Section D Personnel	16
D 1 Training	17
<i>D 1.1 General Food Hygiene Training</i>	17
<i>D 1.2 Technical Training</i>	17
D 2 Hygiene and Health Requirements	17
<i>D 2.1 Cleanliness and Conduct</i>	17
<i>D 2.2 Communicable Diseases/Injuries</i>	18

Section E Sanitation and Pest Control	19
E 1 Sanitation	19
<i>E 1.1 Sanitation Program</i>	19
E 2 Pest Control	21
<i>E 2.1 Pest Control Program</i>	21
Section F Recall	22
F 1 Recall System	22
<i>F 1.1 Recall Program</i>	22
<i>F 1.2 Product Code Identification and Distribution Details</i>	24
Section 3 Manufacturing Controls	25
Appendix 1 Glossary of Terms	27

Superseded

Section

1

Introduction

Consumers expect the food they eat to be safe and suitable for consumption. Foodborne illness and foodborne injury are at best unpleasant: at worst they can be fatal. Effective hygiene controls are vital to preventing the adverse human health and economic consequences of foodborne illness, foodborne injury, and food spoilage.

The Meat Facility Standards (MFS) ensures that conditions under which meat and meat products are manufactured and the ingredients used in their manufacture lead to the production of food, which is safe for human consumption.

The MFS is a policy document legislated by the Meat Inspection Regulation, Alberta Regulation 42/2003, and Section 15.1, which requires the operator of a meat facility to comply with the MFS. It is a HACCP based program using internationally accepted food hygiene principles and consists of sections, which include prerequisite programs and manufacturing controls.

The MFS applies to all provincially licensed meat facilities regulated by Regulatory Services Division of Alberta Agriculture and Rural Development (ARD). It provides a firm foundation for good manufacturing and hygienic practices and allows operators to control and prevent relevant food safety hazards and to identify meat-borne risks to human health ultimately resulting in improved food safety.

In the past, food manufacturers have relied almost entirely on end product testing to determine and ensure the safety of their products. Now the industry and government have established scientifically sound principles to identify and control hazards during production ensuring that a safe, wholesome meat product is produced.

The safety of food products produced within Alberta is ultimately the responsibility of the licensed meat facility operator. However, everyone, including manufactures, processors, food handlers and consumers, has a responsibility to assure that food is safe and suitable for consumption. Meat inspection programs administered by Regulatory Services Division provide assurance that food is suitable for human consumption and monitor to ensure facilities have taken appropriate steps to produce safe meat products.

Section

2**Responsibilities of the Operator**

- 2.1. The operator shall develop, implement and maintain programs as required by the MFS.
- 2.2. The operator shall ensure the effectiveness of the MFS programs as implemented. Written programs must be current and reflect operations within the facility. The programs must be reviewed and updated as necessary and at a minimum frequency of once per year.
- 2.3. A written program shall include the following:
 - a) **Purpose** of the activity or procedure;
 - b) **Who** conducts the activity or procedure;
 - c) **What** they must do;
 - d) **How** the activity or procedure is done including instructions (i.e. Standards Operating Procedures (SOPs)
 - e) **When** (i.e. frequency);
 - f) **Deviation procedures** (complete with who, what/how, and when);
 - g) **Verification procedures** (complete with who, what/how, and when);
 - h) A list of the **records**.
- 2.4. Records must be retained for a period of at least one year
- 2.5. Whenever “Where necessary”, “where appropriate”, “adequate”, or “sufficient” is used, RSD will collaborate with the operator of a licensed meat facility to decide whether a requirement is needed based on principles in the MFS and/or under the operational procedures of a licensed facility (e.g. number of required hand wash stations to ensure hygienic operations in the licensed meat facility).

Section

A**Premises****Objective:**

To ensure the facility is designed, constructed, equipped and maintained in a manner that:

- permits the operations within the facility to be performed under sanitary conditions;
- permits effective cleaning and sanitation of all surfaces; and
- prevents the contamination of meat and meat products.

Rationale:

The design and construction of facilities must incorporate features to prevent hazards that could affect food safety. These features must provide a processing environment suitable for operational needs and control product and employee flow to minimize cross-contamination. The features must also permit easy cleaning and sanitation, control the entry and harbouring of pests, and control the entry of environmental contaminants such as smoke and dust. Regular maintenance is required to prevent deterioration of the facility. "Premises" includes all elements in the building and building surroundings.

A 1 Building Exterior*A 1.1 Outside Property and Building*

1. The licensed meat facility must be situated on land that is readily accessible, free of debris and refuse, provides or permits good drainage, and is not close to any source of environmental contaminants (e.g. objectionable odors, smoke, dust or other contaminants) or any place that harbors insects, rodents or other vermin. Vegetation must be maintained and controlled to prevent pest harborage.
2. Buildings are of sound construction, are maintained in good repair, and do not present any chemical, biological or physical hazards to meat or meat products. The construction and layout of the building(s) reflect the approved blueprints, where applicable.

A 2 - Building Interior

A 2.1 - Design, Construction and Maintenance

1. Areas of the facility, where required or appropriate, are provided with an adequate number of conveniently located hands-free hand wash stations. Hand-washing facility(ies) must be directly drained in processing areas and be supplied with hot and cold running water (of proper temperature for hand-washing), soap, sanitizer as appropriate, single service paper towels and a waste bin. Hand-washing notices must be posted in the appropriate areas.
2. Floors, walls and ceilings are constructed of material that is durable, impervious, smooth, cleanable and suitable for the activities conducted in the area. Where appropriate, joints are sealed and angles are coved to facilitate cleaning and avoid contamination.
3. Floors, walls and ceiling materials (as well as various coating and joint sealants) are listed in the Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products, published by the Canadian Food Inspection Agency. If this is not the case, the manufacturer must obtain a "letter of no objection" from Health Canada.
4. Floors are sufficiently sloped for liquids to drain to trapped outlets.
5. Ceilings, overhead structures, windows, fittings and stairs are designed, constructed and maintained to prevent contamination of meat products and allow for easy cleaning and inspection.
6. Windows are sealed or equipped with close-fitting screens. Where there is a likelihood of breakage of glass windows that could result in contamination of food, windows are constructed of alternate materials or are adequately protected.
7. Doors are close fitting and self-closing where appropriate to prevent or minimize the entry of pests and other contaminants to prevent contamination of meat products.
8. The facility must be designed to facilitate hygienic operations by means of a regulated flow in the process, from the arrival of raw material to the shipping of the finished product. The traffic pattern of employees, product and equipment must prevent the contamination of product. Physical and where appropriate operational separations are acceptable methods to prevent contamination of the product. Blueprints and/or process flow diagrams are available. Rail heights must be sufficient to prevent carcasses from contacting the floor or other sources of contamination.
9. Living quarters, and areas where animals are kept, are separated and do not open directly into food handling, processing or packaging areas. Incompatible operations are physically and operationally separated to prevent cross-contamination of food.

A 2.2 - Lighting

1. Lighting in the licensed meat facility is appropriate, permits the intended production or inspection activity to be effectively conducted, and does not alter food color. Lux requirements meet the respective program standards.
2. In areas containing exposed food or packaging materials, light bulbs and fixtures are of a safety-type or are protected in order to prevent contamination of food, packaging and food contact surfaces in case of breakage.

A 2.3 - Ventilation

1. Ventilation provides sufficient air exchange to prevent the accumulation of smoke, steam, condensation or dust and removes contaminated air. Filters are cleaned and replaced as appropriate.
2. Ventilation openings are equipped with tight-fitting screens or are otherwise protected with non-corrodible material to prevent entry of pests and/or other contaminants. Air intakes are located to prevent the entry of contaminated air.
3. Positive air pressure is maintained that is the direction of airflow must be from clean to less clean areas.

A 2.4 - Waste Disposal

1. Drainage and sewage systems are equipped with appropriate traps and vents. Facilities are designed and constructed to prevent cross-connection between the sewage system and any other waste effluent systems in the facility. No drainage pipes pass directly over or through production areas, unless they are controlled to prevent contamination.
2. Designated areas and equipment are provided for the storage of waste material prior to their removal from the licensed meat facility. The designated area and equipment are designed to prevent contamination.

Containers used for waste are clearly identified and are leak proof and where appropriate covered. Waste is removed and facilities and containers are cleaned and sanitized at an appropriate frequency to minimize contamination.

A 2.5 - Inedible Room

1. A dedicated area is provided for cleaning and sanitizing all equipment used for inedible materials.
2. The inedible room is located, ventilated and refrigerated (where necessary) in such a way as to prevent cross-contamination of edible products. An appropriate shipping door for inedible material must be available and must not be used for edible product. Areas used to salvage products which may result in the contamination of edible meat products (i.e. intestine salvage) must be segregated and appropriate operational controls must be in place.

3. Inedible products are isolated and denatured as per program requirements.

A 3 – Welfare Areas

A 3.1 - Employee Welfare Areas

1. Washrooms have sufficient number of hand-washing facilities to meet the needs of the maximum number of employees, have hot and cold running potable water, soap, sanitary hand-drying supplies or devices, and, where required, a cleanable waste receptacle.

Notices to wash hands are posted at all hand wash stations.

2. Washrooms, dressing rooms and lunch rooms must be adequate in size and equipment for the number of people using them. Washrooms, lunchrooms and change rooms are provided with adequate drainage, ventilation and are maintained in a manner to prevent contamination. Washrooms with self-closing doors are provided. They are separate from and do not open directly into food processing areas.

A 3.2 - Cleaning and Sanitizing

1. Cleaning and sanitizing equipment is constructed of corrosion-resistant materials that can be cleaned easily. Potable water is provided at temperatures appropriate for the cleaning chemicals used.

Cleaning and sanitizing equipment is adequately separated from food storage, processing and packaging areas to prevent contamination of food.

2. Where required, cleaning and sanitizing equipment is designed for its intended use and is properly maintained.

A 4 - Water/Ice Quality and Supply

A 4.1 - Water/Ice

1. Only potable water shall be used in meat product handling, processing and sanitation procedures. Water supplied to a licensed meat facility shall meet the current limits for potability of Health Canada's Guidelines for Canadian Drinking Water Quality or the appropriate provincial standard as per Alberta Health Services in the case that the provincial standards are more stringent than Health Canada guidelines. Water and ice are analyzed at a frequency adequate to confirm their potability. For municipal sources, potability analyses of water are required on an annual basis. For private wells, microbial analyses are required on a monthly basis and an annual chemical analysis is needed. Satisfactory results are required to operate. Water from sources other than municipal supplies must be treated as necessary and tested to ensure potability. Water and ice potability records include:

- the water source sampling site

- the analytical results
- the analyst's name
- the date of the analysis.

Records of water potability, and of the water treatments applied, are maintained, filed, and made available upon request.

Ice used as an ingredient or coming into direct contact with food is made from potable water and is handled and stored to protect it from contamination.

2. Where water treatment systems are used in a licensed meat facility, it is essential that the operator establish procedures to ensure the treated water is potable. Any water chemically treated is monitored and controlled to deliver the desired concentration and to prevent contamination. It is required that a metering device for adding the water treatment agent in the correct concentration, relative to the water flow rate is in use. Water treatment records include: method of treatment, sample site, analytical result and date.

Water treatment chemicals are listed in the Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products, published by Canadian Food Inspection Agency, or the facility has a "letter of no objection" from Health Canada.

3. Only potable water is used in all food processing, handling, packaging or storage areas. No cross-connections occur between potable and non-potable water supply systems.
4. Hoses, taps, cross-connections or similar sources of possible contamination are equipped with backflow prevention devices, if required.
5. Where water filters are used, they are changed or maintained effectively as required.
6. In areas for food processing, handling, packaging and storage, water volume, temperatures and pressures are adequate for all operational and clean-up needs.
7. Where required, facilities for storage and distribution of water (e.g. water storage tanks) protect the water from contamination.
8. The treatment process for and the use of recirculated water must be accepted by the regulatory agency having jurisdiction. Recirculated water is treated, monitored, and maintained in a condition such that no health hazard results from its use. Recirculated water has a separate distribution system which is readily identified in the facility.

Section

B

Transportation and Storage

Objective:

To ensure that meat and meat products are transported, received, stored and handled under conditions that:

- (a) protect them from potential sources of contamination (chemical, physical or biological);
- (b) protect them from damage likely to render them unsuitable for human consumption; and
- (c) provide an environment which effectively controls the growth of pathogenic or spoilage micro-organisms and the production of toxins in meat and meat products.

Rationale:

Meat and meat products may become contaminated during storage and/or transportation, or may not reach their destination in a suitable condition for human consumption, unless effective control measures are taken during storage and transport, even where adequate hygiene control measures have been taken earlier in the food chain or production process.

B 1 - Transportation**B 1.1 - Food Carriers**

1. The facility verifies that carriers are suitable for transporting meat products. Upon receiving goods or prior to loading goods for shipment, the facility inspects commercial carriers to ensure that they are free from contamination and suitable for transporting meat products.

Where appropriate, materials used in carrier construction are suitable for contact with food. The facility has a program in place to verify the adequacy of cleaning and sanitizing of all commercial carriers.

2. Carriers are loaded, arranged and unloaded in a manner that prevents damage to and contamination of meat products. Finished products are transported under

conditions that prevent biological, physical and chemical contamination of meat products.

3. Incoming materials are received in an area separate from processing area(s) that does not pose a potential contamination risk to meat products or the interior of the licensed meat facility.

B 1.2 - Temperature Control

1. Materials requiring refrigeration (both incoming materials and finished products) are transported at a regulated and/or acceptable temperature and are appropriately monitored.

Frozen ingredients and frozen finished products are transported at temperatures that do not permit thawing.

2. Finished product is transported under conditions to prevent damage or deterioration.

B 2 Receiving and Storage

B 2.1 - Incoming Material Receiving and Storage

1. Incoming materials that require refrigeration are stored at regulated and/or acceptable temperatures and are appropriately monitored.

Frozen ingredients are stored at temperatures that do not permit thawing.

Rooms used for the storage of meat products shall be capable of maintaining temperature of stored meat products at 4C or less. Freezers used for the storage of meat products shall be capable of maintaining temperature of frozen meat products at -18C or less.

2. Incoming materials are handled and stored in a manner to prevent damage and/or contamination.

Ingredients and, where appropriate, packaging materials are rotated according to age to prevent deterioration and spoilage.

Incoming materials that are sensitive to humidity are stored under appropriate conditions to prevent deterioration.

B 2.2 - Non-Food Chemical Receiving and Storage

1. All non-food chemicals used are listed in the Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products, published by the Canadian Food Inspection Agency, or the facility has a "letter of no objection" from Health Canada.
2. Chemicals are received and stored in a dry, well-ventilated area that is separate from all food handling areas. Non-food chemicals are stored in designated areas

such that no possibility exists for cross-contamination of food or food contact surfaces.

3. Where required for ongoing use in food handling areas, chemicals are stored in a manner that prevents contamination of food, food contact surfaces or packaging materials.
4. Chemicals are stored and mixed in clean, correctly-labeled containers and are dispensed by trained, authorized personnel.

B 2.3 Product Storage

1. Products are stored and handled under conditions that prevent deterioration, and spoilage and in a manner that prevents damage and contamination (e.g. away from walls and off the floor).

Stock rotation is controlled to prevent deterioration and spoilage.

2. Returned, defective, re-work or suspect products are controlled, clearly identified, and isolated in a designated area until they can be disposed of as appropriate.

Section

C

Equipment

Objective:

To ensure equipment and containers used in the facility are designed, constructed, maintained, operated and arranged in a manner that:

- a) permits the effective cleaning and sanitizing of its surfaces;
- b) prevents contamination of the food; and
- c) permits it to function in accordance with its intended use and where appropriate is properly calibrated.

Rationale:

The purpose of these requirements is to prevent the contamination of food by micro-organisms, dust and foreign material such as rust and lubricants. In addition, these requirements prevent the cross-contamination with other food, which is of particular concern for people with food allergies. Poor design and construction may result in equipment that is difficult to clean and requires a higher level of maintenance. Contamination problems may also arise from poor maintenance, misuse of equipment, exceeding the capacity of the equipment, using worn-out equipment, and improperly modifying equipment. Equipment arranged in an orderly manner permits cleaning of adjacent areas, alleviates interference with other processing operations and minimizes cross-contamination by personnel.

Equipment should be located so that it permits adequate maintenance and cleaning, functions in accordance with its intended use and facilitates good hygiene practices, including monitoring. Where necessary, such equipment should be durable and movable or capable of being disassembled to allow for maintenance, cleaning disinfection, and monitoring.

C 1 General Equipment*C.1.1 Design and Installation*

1. Equipment and/or utensils are designed, constructed and installed so as to ensure that they are:

Capable of delivering the requirements of the process (e.g. pasteurization, thermal processing, etc.);

Accessible for cleaning, sanitizing, maintenance and inspection. Adequate space is provided within and around equipment to prevent contamination of food products during operations.

Where appropriate, equipment is properly drained and connected directly to drains.

Equipment is designed so that all food contact surfaces are smooth, non-corrosive, non-absorbent, non-toxic, and free from pitting, cracks and crevices.

All chemicals, lubricants, coatings and paints used on equipment that comes into contact with food are listed in the Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products, published by the Canadian Food Inspection Agency, or the facility has a "letter of no objection" from Health Canada.

2. Where required, equipment is properly vented. Equipment is maintained in a clean and sanitary manner in accordance with the company's sanitation program.
3. Equipment and utensils used to handle inedible material are not used to handle edible material and are clearly identified.

C 1.2 Equipment Maintenance and Calibration

1. The facility's preventative maintenance program ensures that equipment functions properly. Any equipment that has an impact on food safety, functions as intended and does not introduce physical or chemical hazards into the operation.

The facility maintains a list of all equipment that requires regular maintenance. It also sets out procedures and frequencies for each maintenance task (such as equipment inspection, adjustment and part replacement, etc.). These are based on the equipment manufacturers' instructions or based on the facility's operating conditions. The facility sets out maintenance procedures and frequencies adequate for the production of safe food.

2. The facility has an effective calibration program for equipment monitoring and/or controlling devices that affects food safety. For equipment requiring calibration (e.g. thermometers, pH meters, a_w (water activity) meters, refrigeration unit controls, pasteurizers, scales, recording charts, hygrometers, etc.), the facility details calibration procedures and provides a schedule of frequencies associated with each calibration task.

Section**D****Personnel****Personal Hygiene:****Objective:**

To ensure all personnel at the facility maintain an appropriate degree of personal cleanliness and hygiene and follow proper food handling practices.

Rationale:

People who conduct activities which are inappropriate in a food producing facility (e.g., spitting, chewing gum, etc.), who do not maintain an appropriate degree of personal cleanliness, and/or have certain illnesses or conditions which may result in contamination of food. This could pose a potential threat to the safety of food and its suitability for consumption and/or potentially could transmit illness(es) to consumers.

Training:**Objective:**

To ensure employees follow safe food handling practices by providing appropriate training to individuals handling meat and meat products. Training establishes an understanding of the importance of proper food handling practices and manufacturing controls. This understanding supports the production of safe meat products.

Rationale:

Training in food handling and manufacturing controls is fundamentally important to any meat-processing facility. It is important that personnel employed in the production of meat products understand their duties relative to food safety. Inadequate training and supervision of any person involved in meat production and handling pose a threat to the safety of meat products and to the health of consumers.

D1 Training

D 1.1 General Food Hygiene Training

1. The facility trains employees in appropriate personal hygiene and hygienic handling of food. Training in food hygiene is provided at the beginning of employment and is reinforced and updated at appropriate intervals.

D 1.2 Technical Training

1. The facility provides technical training appropriate for the complexity of the manufacturing process and the tasks assigned (e.g. personnel are trained to understand the importance of the manufacturing control point(s) for which they are assigned, the procedures for monitoring, the action to be taken if the limits are not met and the records to be kept).
2. Personnel responsible for maintaining and calibrating equipment with an impact on food safety have been appropriately trained to perform these functions and to identify deficiencies that could affect product safety and to take the appropriate corrective actions.
3. Personnel responsible for the sanitation program are appropriately trained to understand the principles and methods required for effective cleaning and sanitizing.
4. The facility ensures the employees' knowledge is up to date through additional training in process technology and new equipment operation as appropriate (e.g. annual retraining, specific technical training, etc.).

Training programs should be routinely reviewed and updated where necessary.

D 2 Hygiene and Health Requirements

D 2.1 Cleanliness and Conduct

1. The facility has and enforces a policy to ensure good personal hygiene and hygienic activities that prevent the contamination of food products. This policy covers hand washing/sanitizing, protective clothing, and personal hygiene.

All employees who work in a food handling area must maintain personal cleanliness.

Whenever employees enter a food production area, they must wash their hands thoroughly with soap under warm, running potable water. Hands are always washed at the start of food handling activities, after handling raw food or any contaminated materials, before handling ready to eat products, and after using

toilet facilities. Where required, employees use disinfectant hand dips and/or footbaths.

Protective clothing, hair coverings (including beard and moustache coverings), and footwear applicable to the operation are worn and maintained in a sanitary manner. Protective clothing must be maintained in a good state of repair.

All personal objects (e.g. jewellery) that may contaminate meat products must be removed prior to entering a food handling area. Jewellery that cannot be removed (e.g. medic alert bracelets, etc.) is adequately covered. Jewellery is not worn or carried into food handling areas. All personal items (e.g. jewellery) must not be stored in food handling or product storage areas.

People engaged in food handling activities must refrain from activities which could result in contamination of food (i.e. smoking, spitting, chewing or eating).

2. Access of personnel and visitors is controlled in the licensed meat facility to prevent contamination. The traffic pattern of employees prevents cross-contamination of the product. Visitors, as appropriate, have to follow the facility's "health and hygiene policy", sign-in the visitor log book and be accompanied.

D 2.2 Communicable Diseases/Injuries

1. The operator has and enforces a policy to prevent personnel known to be suffering from, or known to be carriers of a disease transmissible through food, from working in food handling areas.
2. The facility requires employees to advise management when they are suffering from a communicable disease, gastrointestinal illness, or are known to carry disease that can be transmitted through food. These employees shall not work with food or in food handling and storage areas.
3. Employees having open cuts or wounds do not handle food or food contact surfaces unless the injury is completely protected by a secure waterproof covering (e.g. rubber gloves).

Section

E

Sanitation and Pest Control

Objective:

To establish effective sanitation and pest control programs ensuring:

- a) proper cleaning and sanitation of facilities, equipment and utensils to prevent the contamination of food;
- b) effective monitoring of cleaning and sanitation; and.
- c) effective and safe pest control.

Rationale:

Sanitation and pest control in a meat processing facility directly influences the safety and quality of meat and meat products. Production of safe products requires that they be produced with equipment and in an area that is free from environmental and microbial contamination. Sanitation and pest control programs that are written, practiced and monitored will provide assurance that levels of cleanliness and sanitation are maintained.

E 1 Sanitation*E 1.1 Sanitation Program*

1. The written sanitation program must provide sufficient guidance to ensure that the personnel responsible for the sanitation activities are aware of their responsibility and have the tools and techniques required to perform the sanitation activities. The sanitation program must reflect the current layout of the facility and activities therein.

The written sanitation program shall address food contact surfaces, equipment, specialized cleaning procedures, floors, drains, walls, ceilings, lighting fixtures, refrigeration units, overheads and anything else affecting food safety.

Cleaning and disinfection of live animal holding pens, including crates, must be part of the written sanitation program.

The operator has a cleaning and sanitation program for all equipment which includes: chemicals and concentration used, water temperature requirements,

procedures and frequencies for cleaning and sanitizing, disassembly and assembly instructions for equipment.

Chemicals are used in accordance with the manufacturer's instructions and are listed in the Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products, published by the Canadian Food Inspection Agency, (CFIA) or the manufacturer has a "letter of no objection" from Health Canada.

Suitable provision shall be made by the operator of the licensed meat facility for the removal and storage of waste. Waste must not be allowed to accumulate in meat handling, storage, and other working areas.

Every inedible container shall be clearly identified and thoroughly cleaned and sanitized.

2. The sanitation program is carried out in a timely manner. Food or packaging materials are not contaminated during or subsequent to cleaning and sanitizing of equipment.

The sanitation program outlines general housekeeping and special sanitation procedures to be carried out during operations (e.g. mid-shift cleanup).

The temperature in a room of a licensed meat facility shall not exceed 10C. If the temperature exceeds 10C, the operator shall ensure operational controls are in place and documented to ensure meat products are not compromised and are maintained at appropriate temperatures.

The accumulation of proteinaceous material and fat on equipment over the course of a shift shall be prevented. Adequate and correct temperature control is mandatory in order to slow down the reproduction of micro-organisms.

Water sanitizers are a very important facet of sanitation during daily operations. They must be sufficient in number and located as necessary. Water sanitizers must be operated at not less than 82 C with adequate overflow as appropriate to achieve sufficient reduction in the number of micro-organisms present.

The written sanitation program specifies the following:

1. The area(s) and equipment to be cleaned, the frequency and the person responsible for each
2. Instructions for cleaning the specified equipment and areas
3. The cleaning equipment to be used and the instructions for its proper operation (e.g. pressure, volume, etc.)
4. The detergents and sanitizers to be used (including commercial and/or generic names) and their concentration levels, water temperature, etc.

5. The method of applying cleaning and sanitizing solutions (e.g. contact time, foam consistency, etc.)
6. Rinsing instructions, including, if necessary, water temperature.

The facility monitors and verifies the effectiveness of its sanitation program by conducting:

- microbiological testing;
- routine sensory inspections of areas and equipment; and
- direct, on-site observation of cleaning procedures.

The sanitation program is adjusted as necessary to incorporate new cleaning procedures (e.g. new equipment, new chemicals, etc.).

The sanitation program may be used to provide control over cross-contamination issues associated with the production of non-allergenic and allergenic products.

3. Operations begin only after all sanitation requirements have been met (e.g. pre-operation inspection).

E 2 Pest Control

E 2.1 Pest Control Program

1. There is an effective written pest control program for the premises and equipment that includes:
 - the name of the contact person assigned the responsibility for pest control at the facility,
 - where applicable, the name of the pest control company or the name of the person contracted for the pest control program
 - the list of chemicals used, the concentration, the location where applied, method and frequency of application all used in accordance with label instruction
 - a map, including location and control information of pest control devices and/or bait stations.

Chemicals are used in accordance with the manufacturer's instructions and as regulated by the Pest Management Regulatory Agency. Pest control chemicals are used in a manner that prevents the contamination of food.

Pesticides and other pest control chemicals shall be kept in a secure storage area, with access being limited to authorized personnel.

Section

F**Recall****Objective:**

To ensure an effective recall program is in place which would permit any lot of product posing a risk to human health to be rapidly and efficiently removed from the marketplace.

Rationale:

A recall is an effective method of removing products from the market when they pose a potential health hazard to consumers. A product coding system and a product distribution list are essential for identifying products that represent a potential risk to the health of consumers, so the products can be removed from the marketplace. The recall program must be tested periodically to validate its effectiveness (e.g. through a mock recall).

F 1 Recall System*F 1.1 Recall Program*

1. The written recall program includes the following:
 1. Documentation associated with the product coding system. Food products are identified with a production date or code that identifies each lot. The product coding system allows the facility to trace raw ingredients, packaging materials and finished products. For each lot, the facility records the amount of product produced.
 2. Procedures for storing records of finished product distribution. Records are maintained for a period of time that exceeds the shelf life of the product and adheres to regulatory requirements. In the event of a recall, the records are effective in allowing the facility to locate all products.
 3. Procedures for maintaining the food safety complaint file. Records that document all complaints related to food safety and the actions taken are filed.

4. Identification of individuals in the recall team, including their respective telephone numbers at work and home. Each member of the recall team has a designated alternate person, whose name and contact information is included in the list. The roles and responsibilities of each team member are clearly defined.
 5. Step-by-step procedures to follow in the event of a recall. These procedures specify the extent and the depth of the recall (e.g. consumer to retailer or wholesaler), according to the recall classification.
 6. Procedures and means for notifying affected customers, according to the types of hazard involved. The instructions identify method(s) of communication (fax, telephone, radio, letter, or other means) to be used to trace back and recover all affected product.
 7. Control measures, including disposal, for returned product and product found in the facility. These are described according to the type of hazard involved.
 8. Procedures for assessing the progress and efficacy of the recall. The procedures specify a method (i.e. recall summary) of checking recall effectiveness. The effectiveness of a recall program can be tested through a mock recall.
2. Any facility initiating a recall must notify ARD, the Regional Alberta Health Services Unit and CFIA. Notification requirements include provision of the following information:
1. Reason for the recall, including a detailed description of the nature of the problem
 2. Details of any complaints received or any illnesses reported
 3. Label(s) of the product(s) recalled
 4. Name, brand, size, code marks or lot numbers, facility number, date of production
 5. The amount of recalled product involved, including:
 - Total quantity of the recalled food originally in the company's possession
 - Total quantity distributed at the time of the recall
 - Total quantity remaining in the company's possession
 6. Distribution of the recalled food by area, city. Specific dates upon which the product was distributed.

7. Details on any other product which may be affected by the same hazard.

F 1.2 Product Code Identification and Distribution Details

1. Each pre-packaged product has permanent, legible code marks or lot numbers on the packages. The code identifies the meat facility, the day, month and year in which the food was produced or packaged, and if possible be linked to ingredient (e.g. spices, etc.) lots or batches. If code marks are used, the exact meanings of the code are available.
2. The operator shall substantiate the capability to recall all affected product (e.g., identify and remove from the market place). The recall program must be periodically tested to validate its effectiveness (i.e. through a mock recall). This capability must extend to all products that may contain suspect meat products or ingredients. This capability can be shown through:
 - (a) Records of customer names, addresses, telephone numbers;
 - (b) Records of production, inventory system and distribution by lot; and
 - (c) Verifying that all affected product has been accounted for, based on production, inventory and distribution records.

Section

3

Manufacturing Controls

Objective:

To ensure products are handled and processed in such a manner that does not pose a risk to human health, including:

- (a) documentation of handling/processing procedures;
- (b) controls and monitoring as required to ensure product safety;
- (c) documentation to substantiate that control procedures were achieved; and
- (d) verification that these procedures are complete and effective.

Rationale:

It is more effective to ensure product safety by implementing process controls than by testing the finished product. Incorporation and adherence to processing controls will enhance the food safety.

1. The operator of a licensed meat facility shall maintain a documented list of all (e.g., prepared products, fresh products, carcasses, etc.) products the facility produces, including:
 - (a) How the products are to be used (e.g. RTE, ready-to-cook, etc.);
 - (b) How the products are packaged (e.g., cryovac bags, brown paper wrapped, bulk, vacuum packed, etc.);
 - (c) Shelf life;
 - (d) Where each product will be sold (e.g. retail on site, retail off-site, custom for re-sale etc.);
 - (e) Labelling instructions (e.g., keep refrigerated, etc.); and
 - (f) Distribution information (e.g., temperature requirements, etc.).
2. Current, written recipes must be maintained for each prepared meat product (e.g., heat processed, dried, fermented, ground products with ingredients added, etc.) produced at the facility. Products must be produced in accordance with the recipe. In addition, a written method of preparation for each prepared meat product is required that explains the procedures or methods to prepare the product and/or process the product.
3. Written procedures for handling/processing of meat and meat products must be

based on potential food safety hazard(s) associated with ingredients, packaging materials, processing steps, facility layout and the finished product. Written procedures must identify:

- (a) Hazards requiring control (e.g., presence of *E. coli* 0157:H7, allergens, metal fragments, etc.). These hazards could be of a biological, chemical or physical in nature.
- (b) Where, or at what critical processing step(s) (e.g., dressing, cooking, smoking, cooling, etc.), the hazards identified in clause (a) will be controlled through prevention, elimination or reduction to an acceptable level. These critical processing steps (Manufacturing Control Points) require all documentation listed in clauses (a) through (f).
- (c) The criteria (e.g., time, temperature, cooling rate, etc.) that needs to be met to control the hazards in clause (a).
- (d) Procedures for monitoring the criteria in clause (c), including record keeping to prove criteria in clause (c) were met. These records shall be kept on the plant premises at least for one year after the date when the products were made.
- (e) What action will be taken if the criteria in clause (c) are not met (i.e., deviation or corrective action procedures when criteria in clause (c) are not met). The corrective actions and preventative measures must be effective and address any non-compliant product produced as well as ensure the criteria are met. These procedures shall include a provision for documentation on how deviation reoccurrences are to be prevented.
- (f) Verification procedures for verifying that food safety hazards in clause (a) are controlled, verification that criterion in clause (c) are met and, verification that activities in clauses (d) and (e) are properly carried out.

Appendix

1

Glossary of Terms

“**Abattoir**” means a premises, including a multi-location abattoir,

- (i) where animals are slaughtered, or
- (ii) where animals are slaughtered and meat is
 - (a) prepared;
 - (b) packaged; or
 - (c) stored.

“**Aerosol**” means a dispersion of solid and liquid particles suspended in gas or mist (e.g. bacteria and other micro-organisms can be suspended in the air in a meat processing facility).

“**Allergen**” means a substance that causes an allergic response in some individuals; and may result in a runny nose, watery and/or itchy eyes, a rash, wheezing or (occasionally) death.

“**Auditor**” means any person appointed by the Director to carry out audit functions with respect to the MFS and applicable meat inspection legislation.

“**Biological hazard**” means any micro-organism, or toxin produced by a micro-organism, that can cause food-borne illness when ingested.

“**Chemical hazard**” means any chemical that may be toxic to humans and may cause immediate or long-term negative effects when ingested or inhaled.

“**Cleaning**” means the removal of soil, food residue, dirt, grease and other objectionable material.

“**Critical Control Point (CCP)**” means a processing step at which control can be applied and a food safety hazard can be prevented, eliminated, or reduced to an acceptable level. A CCP is also called a Manufacturing Control Point (MCP).

“**Critical limit**” means a criterion that separates acceptability from unacceptability

“**Cross-contamination**” means an occurrence when disease-carrying micro-organisms are transferred from one food or surface to another, carried by utensils, hands, towels, or other food. Cross-contamination of food is a common factor in the cause of food-borne illnesses.

"Deviation" means a failure to meet required limits for a Manufacturing Control Point (Critical Control Point), or a failure to meet a standard identified in a Meat Facility Standards.

"Deviation procedure" means a pre-determined and documented set of corrective actions (immediate and preventative) that are implemented when a deviation occurs.

"Facility" includes all elements in the building and also includes elements in the building's surroundings (i.e., the outside property; roadways; drainage; building design and construction; product flow; sanitary facilities; and quality and supply of water, ice, and steam).

"Food contact surface" means a surface with which carcasses; parts of carcasses, ingredients or meat products at a licensed meat facility ordinarily come into contact with.

"Hazard" means a condition or circumstance having the potential to cause harm. Hazards can be biological, chemical, or physical.

"Ingredient" means an individual unit of food that is combined with one or more other individual units of food to form an integral unit of food.

"Licensed meat facility" means a meat facility licensed by ARD.

"Maintained" means kept up to date (at a minimum frequency of annually) and reflecting current operating conditions within the licensed meat facility.

"Manufacturing Controls" means controls put in place in order to ensure that prescribed tolerances or limits are maintained at various processing steps in a manufacturing process.

"Meat facility" means an abattoir, mobile butcher facility, slaughter operation or processing operation and includes any other facility designated as a meat facility by regulation.

"Meat Facility Standards (MFS)" means a food safety program standard that includes prerequisite program (Good Manufacturing Practices) criteria (e.g., sanitation and pest control, recall, etc.) and process control criteria (i.e., manufacturing controls).

"Mock recall" means a process designed to assess the effectiveness of a company's recall program, and the readiness of the recall team. A mock recall involves all steps of the recall program, except that no product is actually recalled.

"Monitoring" means the act of conducting a planned sequence of observations or measurements of control parameters to assess whether a Critical Control Point (CCP) / Mandatory Control Point (MCP) or specific part of the Meat Facility Standards program is under control. This includes recording the results of those observations.

“Operational separation/controls” means the separation of processing activities, by means other than physical separation, to ensure incompatible processing activities do not cause product contamination; commonly a separation in time, following sanitation or through use of some other procedure.

“Personal hygiene” means the combination of an individual’s practices and style that relates to cleanliness (e.g., healthy habits that include bathing, wearing clean clothing and, most importantly, washing hands frequently before handling edibles to contribute to the safe delivery of food).

“Pest” means any animal or insect of public health importance including, but not limited to, birds, rodents, roaches, flies and larvae that may carry pathogens that can contaminate foods.

“Physical hazard” means any foreign material (> 2mm) that could cause injury or illness if ingested.

“Physical separation” means the separation of processing activities by physical means to ensure incompatible processing activities do not cause product contamination; commonly a wall or separate processing rooms.

“Potable water” means water that is safe for human consumption. It meets Health Canada guidelines for drinking water quality

“Premises” means the lands, surrounding areas, buildings and facilities of the licensed meat facility.

“Prerequisite programs” means universal steps or procedures that control the operational conditions which within a food facility and promotes environmental conditions that are favourable for the production of safe food.

“Preventative Measure” means a corrective action resulting from an investigation to determine the cause of the deviation. A preventative measure includes subsequent steps required to prevent reoccurrence of the deviation.

“Ready-to-eat (RTE)” means, in respect of a meat product, an edible meat product that has been subjected to a process sufficient to inactivate vegetative pathogenic micro-organisms or their toxins and control spores of food-borne pathogenic bacteria, so that the meat product does not require further preparation before consumption, except thawing or exposing the product to sufficient heat to warm the product without cooking it.

“Recall” means a system by which products that may be hazardous to consumers are removed from the marketplace.

“**Record**” means a document in physical or electronic medium, which clearly shows evidence of activities performed, data recorded and results achieved.

“**Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products**” means a current list of materials and non-food chemicals that have been found by the Canadian Food Inspection Agency (CFIA) to be acceptable for use in licensed meat facilities.

“**Risk**” means an estimate of the likely occurrence of a hazard.

“**Sanitation program**” means a written program to ensure that the buildings, equipment, utensils, transport containers and all other physical facilities of the facility are maintained in a sanitary condition.

“**Sanitation standard operating procedures (SSOPs)**” means a document that clearly describes how a specific cleaning and sanitizing activity is done (e.g., an SSOP for a meat grinder).

“**Sanitize**” means to reduce the level of micro-organisms to a level that will not compromise the safety of the meat product.

“**Technical Interpretation Policy Manual (TIPM)**” means a document created by ARD that further explains the specific technical details and requirements of the MFS and Meat Inspection Regulation.

“**Traceability**” means the ability to follow inputs and products, their location and their associated history, use and attributes backwards and forwards throughout the food chain.

“**Validation**” means obtaining scientific confirmation or proof that the elements of the food safety system are complete and effective in controlling biological, chemical, and physical hazards. This may include: ingredient product sampling, end product sampling, challenge studies, heat distribution, process validation studies, and statistical analysis.

“**Verification**” means a company’s use of methods, procedures, tests and other evaluations, in addition to monitoring, to determine its conformance to and the effectiveness of its HACCP or HACCP-based system.

Superseded