

## MEAT PROCESSING – FACILITY APPROVALS

This document is intended as a supplement for applicants seeking approval for a meat processing facility that provides a custom cutting service (processes whole carcasses or sides/quarters), and/or manufactures ready-to-eat meat products (such as beef jerky, pepperoni, etc). The general requirements for approval of a Food Premises are outlined in the document *Requirements for Food Premises Approval Guide for Use (HP-FS-9010)*. This information is intended as a guideline, and applicants are encouraged to discuss facility design and construction alternatives with an Environmental Health Officer.

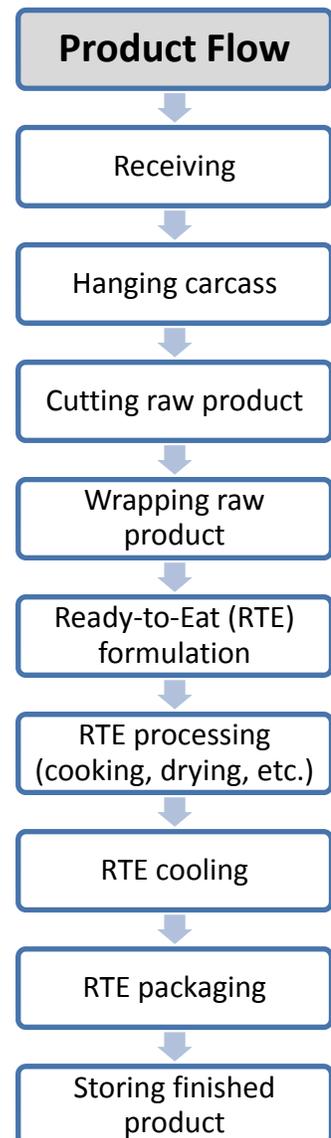
### 1.0 Receiving Area

Vehicle access to the receiving area should be provided to facilitate carcass unloading. Vehicle paths should be constructed of materials that minimize mud and dust generation.

Many facilities that perform custom cutting receive the carcasses with the hide/skin on (particularly game carcasses), and operators will assist or remove the hide/skin for the customer. This should be done before the carcass is accepted into the facility and so at the design stage, consider constructing an area where carcasses can be hung and skinning can be performed. Ideally this area will be covered, constructed with a washable floor (e.g. concrete) that slopes away from the building, and be equipped with a drain and a hose nearby to facilitate cleaning.

### 2.0 Product Flow

All food premises are to be constructed so that food flows from the least processed (most contaminated) state to the most processed (least contaminated) state, this limits food from being moved back through an area of greater contamination. See the typical Product Flow on this page (note that not all steps will apply to all operations).



### 3.0 Rails

Facilities that handle carcasses often use a rail system to hang and move the carcasses. Consider these guidelines:

- The recommended minimum rail height (top of rail to the floor) is generally 3.1 meters (10 feet).
- Lower heights may be acceptable in some circumstances.
- Rails should be spaced at least 60 cm (2 feet) from adjacent walls and obstructions.
- The recommended finish for rails and roller hooks is mineral oil on bare metal (will require periodic reapplication).

### 4.0 Processing Area

Design and construct the processing area to ensure the safe processing of food, as well as being durable and facilitate cleaning and sanitation. Consider the following points in your design:

- Walls must be constructed to withstand some knocking that results from moving carcasses around the facility. Wall board (fibreglass reinforced panels (FRP), puck (arena) board, etc) is preferred over other wall finishes in processing areas.
- The use of paint should be minimized, as it does not wear as well as other finishes, particularly in heavy traffic/heavy use areas.
- Where paint is used, a good quality marine enamel is preferred.
- Painting concrete floors is strongly discouraged; experience has shown that this type of finish does not wear well and will flake; sealing the concrete with a good quality concrete sealer is preferred.
- Cutting surfaces must be smooth; pits and scratches develop over time and provide a location for food and dirt to accumulate and become a potential source of contamination. Many cutting boards (including polyethylene) can be refinished; sizing (thickness) and whether boards will be refinished or replaced is a selection factor when purchasing.

### 5.0 Smokehouses

Smokehouses should be constructed from fireproof materials that are smooth, easy to clean, and impervious to water. Some examples include:

- Cinder block
- Brick
- Poured concrete
- Stainless steel
- Wood frame with galvanized metal cladding

Units must be properly vented and located in such a manner that product can be loaded and unloaded without being subject to contamination or exposure to the elements. Locate the smokehouse indoors to avoid transporting product outdoors. Equipment (e.g. racks, rods,

bacon hooks, etc.) must be designed for its intended use and constructed of materials that are suitable in a food processing facility.

Smokehouses equipped with built-in water cooling systems must be provided with adequate drainage. For those not equipped with a built-in water cooling systems, and where finished product will require water cooling, consideration should be given at the design stage to product cooling.

*Note - handwashing sinks and equipment washing sinks are not acceptable for cooling ready-to-eat product.*

## 6.0 Storage Requirements

Storage requirements depend on the type of processing that is being done. Consider the following:

- Separating inspected and uninspected carcasses.
- Separating carcasses of different species.
- Separating raw product from ready-to-eat product.
- Incorporating specific equipment for ready-to-eat product cooling.
- Providing dedicated/controlled area for fermentation/air-drying.

In situations where large volumes are being processed, dedicated coolers may be required to achieve this separation. In some cases a physical barrier within the cooler may suffice. Coolers should be sized to provide sufficient room to move between carcasses.

## 7.0 Food Safety Plans

Food Safety Plans are required for meat processing operations. Include a step-by-step description of how each product is manufactured. Identify the critical control points (key food safety steps) used in the manufacturing process and describe the critical limits (standard) that must be met to ensure that the product is manufactured safely. Examples of steps used in meat processing include (this list is not extensive):

Critical Control Point	Critical Limit
<b>Curing</b>	Sodium Nitrite Concentration: <b>100 ppm – 200 ppm</b>
<b>Cooking</b>	Final Cook temperature: <b>74°C</b>
	Final Cook temperature: <b>60°C for 12 minutes</b>
<b>Cooling</b>	<b>60°C – 20°C in 2 hours</b> <b>20°C – 4°C in 4 hours</b>
<b>Fermentation</b>	Degree Hours: <b>&lt;665 at &lt;33°C</b>
<b>Drying</b>	Shelf-stable product dried at <b>4°C until A<sub>w</sub> &lt;0.85</b>

Develop your Food Safety Plan prior to obtaining final approval and contact the Health Protection Meat Inspection Program for further information.

## 8.0 Waste Management

Consideration should be given to the storage and disposal of animal waste materials. Dedicated containers and/or areas may be required to ensure that these materials can be handled in a manner that does not create the potential for cross-contamination.

*Note - not all landfills accept animal waste.*

## 9.0 Transportation

All meat products must be transported in a manner that minimizes contamination and maintains proper temperature control. Refer to the *Guidelines for the Safe Transport of Carcasses, Poultry and Meat Products* for further information on transportation requirements.

## 10.0 References

- British Columbia Centre for Disease Control (April 2013): *Abattoirs Code of Good Practice – Critical Design, Operational and Equipment Guidelines for Licensed Abattoirs.*
- British Columbia Centre for Disease Control (April 2013): *Guideline for Cutting and Wrapping of Uninspected Meat and Game in Approved Food Premises*
- British Columbia Centre for Disease Control (April 2013): *Guidelines for the Safe Transport of Carcasses, Poultry and Meat Products*