

Vacuum packing ready-to-eat meat food safety requirements

Food businesses that use modified atmosphere techniques to pack ready-to-eat (RTE) meats (e.g. vacuum packing) may be required to have a Food Safety Management System (FSMS) as per the [Food Standards Code](#) Standard 4.2.3 – Meat and Standard 4.2.3 – Poultry meat.

ready-to-eat meat means meat products intended to be consumed without further heating or cooking, and includes –

- > cooked or uncooked fermented meat
- > pâté
- > dried meat
- > slow cured meat
- > luncheon meat
- > cooked muscle meat including ham and roast beef; and/or
- > other ready-to-eat meat that is susceptible to the growth of pathogens or the production of toxins.

If an Environmental Health Officer identifies that your business is vacuum packing RTE meat, they will inform you of the requirements to have a FSMS, and inform SA Health of your business activities. The business will need to cease this activity until SA Health has verified that the business can meet the requirements of Standard 4.2.3.

NOTE: This information is specifically for businesses that are not required to be accredited by [Primary Industries and Regions SA's](#) (PIRSA) Food Safety – Meat section.

RTE meat food safety risk – *Listeria monocytogenes*

RTE meats have been associated with food poisoning outbreaks from harmful bacteria both in Australia and internationally.

[Listeria monocytogenes](#) is the main pathogen of concern with RTE meats as it can grow in refrigeration temperatures, under low oxygen conditions and is salt tolerant. At 4°C to 5°C it doubles its population every day, and it prefers to grow under vacuum pack conditions than in the presence of oxygen. In long shelf-life products such as vacuum-packed RTE meats, there is the potential for it to grow to numbers that will cause food poisoning.

It is of particular concern because of its high mortality rate in vulnerable populations including the elderly, pregnant women, young children and immunocompromised people.

Businesses that are required to have a FSMS

Food business that may require a FSMS are those that receive RTE meat, and then slice, dice or shave the product, and then pack in modified atmosphere packaging.



Examples include:

- > Supermarkets and continental delicatessens that purchase RTE meat or RTE poultry, **and then** slice it up into smaller portions **and then** vacuum package it for sale direct to the consumer.
- > Snack bars, cafes or restaurants which may produce or purchase RTE meat or poultry **and then** vacuum-pack portions in an attempt to prolong the shelf life, which is then used in the production of food sold at the premises at a later date (for instance sandwiches). This may include businesses that vacuum pack portions for sale to other food businesses.
- > Catering or cook-chill facilities that produce or purchase RTE meat or poultry **and then** slice it up into smaller portions and vacuum-package it for supply to customers at other sites, regardless of whether these sites are owned by the same business or this is done under contract.

Controlling *Listeria monocytogenes* in RTE meat

There are ways that the business can reduce the risk of *Listeria monocytogenes*, and if they can demonstrate their products meet the following criteria, they will not require a FSMS:

- > a pH less than 4.4 regardless of water activity; or
- > a water activity less than 0.92 regardless of pH; or
- > a pH less than 5.0 AND a water activity of less than 0.94; or
- > a refrigerated shelf life no greater than 5 days; or
- > the food is frozen (including foods consumed frozen and those intended to be thawed immediately before consumption); or
- > it can be validated that the level of *Listeria monocytogenes* will not increase by greater than 0.5 log cfu/g over the food's stated shelf life.

Food Safety Management System

A FSMS is the systematic examination of your business' processing operations. It allows you to identify potential hazards and implement control measures to address the hazards.

A large component of a FSMS for RTE meat will include *Listeria* management which requires regular environmental and product testing for *Listeria monocytogenes*.

Your business' FSMS must be verified (audited) by SA Health (Food and Controlled Drugs Branch) as per the assigned frequency, which will be between 3 to 12 months, based on the performance of the business. This will be in addition to local government food safety inspections.

Businesses are responsible for any auditing costs that may be incurred.

If you are unsure if your product can or cannot support the growth of *Listeria monocytogenes*, the default position is that your products can support the growth, and therefore your business must implement a FSMS.

If the business stops conducting the activity that requires a FSMS, SA Health will no longer need to audit the process.

Third party audits e.g. HACCP Certification audits will not be accepted by SA Health.

Businesses that do not require a FSMS

1. Food businesses that slice RTE meat and only wrap for direct consumption (i.e. do not package in modified atmosphere packaging) or that sell RTE meat in original packaging. For example:
 - supermarkets
 - butchers
 - delis
 - other retailers.
2. Food businesses that make, sell or use RTE meat for direct consumption. For example:
 - restaurants
 - cafés
 - canteens
 - takeaways
 - caterers
 - any commercial kitchen.
3. Food businesses that will use the product in fully cooked meals (e.g. quiche) or label the product with cooking instructions (as this means it will no longer meet the definition of 'ready to eat' as it will undergo a step that will kill *Listeria monocytogenes*).
4. Food businesses that can demonstrate their products meet the criteria that control the growth of *Listeria monocytogenes*. These may include:
 - manufacturer specifications for pH and water activity
 - shelf life of less than 5 days
 - freezing the product with instructions to use within 24 hours of thawing.

More information

Contact your local council Environmental Health Officer or SA Health's [Food and Controlled Drugs Branch](#) via healthfood@sa.gov.au or 8226 7100

For more information

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