Chapter 2.9
Warm Meat Policy

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1. Introduction

1.1 Background

During 2012 – 2013, the Food Standards Agency (FSA) considered the issue of warm meat transportation and concluded that compliance with the legislation needed to be secured. Previous processes for providing authorisations were inconsistent in the way they were documented and in some cases were provided informally. A revision to the policy was required in order to align UK policy more closely with the requirements stipulated under EU law.

The revised UK policy on the transportation of warm (above temperature) red meat of cattle, goats, pigs, sheep and other domestic ungulates from the slaughterhouse applied from 2 March 2015 and requires food business operators (FBOs) at slaughterhouses to discuss with their Official Veterinarian (OV) all applications for new authorisations or changes to existing authorisations.

On 6 March 2014, the Scientific Panel on Biological Hazards of the European Food Safety Authority (EFSA) adopted Part 1 of a scientific opinion which concluded that since most bacterial contamination occurs on the surface of the carcase, the surface temperature is an appropriate indicator of bacterial growth. It also provided for combinations of maximum surface temperatures at carcase loading and maximum chilling and transport times, which result in growth of pathogens (micro-organisms that cause food-borne illness) equivalent to or less than that obtained when carcases are chilled to a core temperature of 7 °C in the slaughterhouse.

A further EFSA scientific opinion in 2016 found that some spoilage bacteria (Pseudomonas Spp) that cause decay and thus render the food unacceptable for human consumption can reach critical levels more quickly than pathogens, depending on the initial load of spoilage bacteria and the temperature conditions.

The aerobic colony count must be routinely assessed by the FBO in accordance with (EC) 2073/2005 and can be used as an indicator of the upper limit of the concentration of any spoilage bacteria present on the meat.
Based on the above it is therefore possible to introduce alternative more flexible approaches, based on surface and air temperatures, for the conditions of the transport of fresh meat without deviating from the principle that such meat should be chilled to 7°C by a continuous decrease of temperature. A continuous decrease in temperature, as already mandatory, requires that part of the body heat should be removed prior to long distance transport. Setting a core temperature to which carcases and larger cuts must be chilled before transport is a way of ensuring a significant proportion of body heat is removed.

1.2 Legal requirements

Regulation (EC) No 853/2004 Annex III Section I Chapter VII states that meat must attain the temperature of 7°C before transport, and remain at that temperature during transport.

However, there is a provision to allow the transport of warm meat (i.e. that has not attained the required temperature of 7°C) if the Competent Authority provides authorisation.

Commission Regulation (EU) 2017/1981 amending Annex III to Regulation (EC) No 853/2004 as regards temperature conditions during transport of meat applies from 21 November 2017. This amendment will introduce alternative more flexible approaches, based on surface and air temperatures, for the conditions of the transport of fresh meat without deviating from the principle that such meat should be chilled to 7°C by a continuous decrease of temperature. A continuous decrease in temperature, as already mandatory, requires that part of the body heat should be removed prior to long distance transport. Setting a core temperature to which carcases and larger cuts must be chilled before transport is a way of ensuring a significant proportion of body heat is removed.

1.2.1 Specific Products

Transport of meat for the production of specific products may take place before the required temperature of 7°C is reached provided that:

- The transport of the meat, from one establishment to another, must take place in accordance with the requirements specified by the competent authorities of both origin and destination.

- The meat must leave the slaughterhouse or a cutting room on the same site as the slaughterhouse immediately (a guideline 3 hour period from the completion of the post-mortem inspection of the first animal slaughtered to be transported warm, to the departure of the vehicle) and the transport takes no more than two hours and is justified for technological reasons.
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**Note:** Specific products are products where chilling to the legislative requirement of 7°C may not necessarily contribute to the hygienic and technically most appropriate processing of the product - for example: foie gras. The specific product also needs to undergo a step (further processing) for which it is better that the product is not chilled before starting or carrying out the transport.

This specific derogation therefore applies when meat is destined for processing into a specific product and is justified for technological reasons. In all other instances, the exemption below for carcases, half carcases, quarters and half carcases cut into three wholesale cuts applies.

1.2.2 **Carcases, half carcases, quarters or half carcases cut into three wholesale cuts**

The transport of carcases, half carcases, quarters or half carcases cut into three wholesale cuts of bovine, ovine, caprine and porcine animals may commence before the legislative temperature requirement of 7°C is attained providing that:

- The temperature is monitored and recorded within the framework of the FBO procedures based on HACCP principles;
- The FBO dispatching and transporting the carcases, half carcases, quarters or half carcases cut into three wholesale cuts have in place a documented authorisation for this purpose from the competent authority, at the place of departure;
- Carcases, half carcases, quarters or half carcases cut into three wholesale cuts subject to the derogation, must have a core temperature of 15°C at the start of the transport if they are to be transported in the same compartment as carcases, half carcases, quarters or half carcases cut into three wholesale cuts that have reached the legislative temperature requirement of 7°C core temperature.
- The FBO must provide a declaration to accompany the consignment which must state:
  a) the duration of chilling before loading;
  b) the time at which the loading of the carcase, half carcases, quarters and half carcases cut into three wholesale cuts was started;
  c) the surface temperature at that time;
  d) the maximum transportation air temperature to which the carcases, half carcases, quarters and/or half carcases cut into three wholesale cuts may be subjected;
  e) the maximum transport time permitted;
  f) the date of authorisation and the name of the competent authority providing the derogation.

- The FBO of destination must notify the competent authority before he/she receives for the first time, carcases, half carcases, quarters...
and/or half carcases cut into three wholesale cuts transported under the derogation – i.e. not attaining the legislative temperature requirement of 7°C.

- The vehicle transporting the carcases, half carcases, quarters or half carcases cut into three wholesale cuts may only collect from one slaughterhouse per transport.
- The transport vehicle must be refrigerated and fitted with an instrument that monitors and records the air temperatures to which the carcases, half carcases, quarters and/or half carcases cut into three wholesale cuts will be subjected so that the competent authorities can verify compliance with the time and temperature conditions as set out below:
  
  - For a maximum transport time\(^1\) of six hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature(^2)</th>
<th>Maximum time to chill to surface temperature(^3)</th>
<th>Maximum transportation air temperature(^4)</th>
<th>Maximum daily mean carcase aerobic colony count(^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovine and caprine</td>
<td>7°C</td>
<td>8 hours</td>
<td>6°C</td>
<td>(\log_{10} 3.5 \text{ cfu/cm}^2)</td>
</tr>
<tr>
<td>Bovine</td>
<td>7°C</td>
<td>20 hours</td>
<td>6°C</td>
<td>(\log_{10} 3.5 \text{ cfu/cm}^2)</td>
</tr>
<tr>
<td>Porcine</td>
<td>7°C</td>
<td>16 hours</td>
<td></td>
<td>(\log_{10} 4 \text{ cfu/cm}^2)</td>
</tr>
</tbody>
</table>

- **Pigs**: for maximum transport time\(^1\) of thirty hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature(^2)</th>
<th>Maximum time to chill to surface temperature(^3)</th>
<th>Core temperature(^6)</th>
<th>Maximum transportation air temperature(^4)</th>
<th>Maximum daily mean carcase aerobic colony count(^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porcine</td>
<td>7°C</td>
<td>16 hours</td>
<td>15°C</td>
<td>6°C</td>
<td>(\log_{10} 4 \text{ cfu/cm}^2)</td>
</tr>
</tbody>
</table>

- **Sheep, goats & cattle**: for maximum transport time\(^1\) of sixty hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature(^2)</th>
<th>Maximum time to chill to surface temperature(^3)</th>
<th>Core temperature(^6)</th>
<th>Maximum transportation air temperature(^4)</th>
<th>Maximum daily mean carcase aerobic colony count(^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovine and caprine</td>
<td>4°C</td>
<td>12 hours</td>
<td>15°C</td>
<td>3°C</td>
<td>(\log_{10} 3.0 \text{ cfu/cm}^2)</td>
</tr>
<tr>
<td>Bovine</td>
<td>4°C</td>
<td>24 hours</td>
<td>15°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) **Maximum Transport time** - Maximum time allowed from the start of loading of meat into the vehicle until the completion of the final delivery. Loading of the meat into the vehicle may be postponed beyond the maximum time allowed for chilling of the meat to its specified surface temperature. If this happens, then the maximum transport time allowed must be shortened by the same length of time by which the loading was postponed. The competent authority of the Member State of destination may limit the number of delivery points.

\(^2\) **Surface temperature** - Maximum surface temperature allowed at loading and thereafter measures at the thickest part of the carcase, half carcases, quarters, or half carcases cut into three wholesale cuts.

\(^3\) **Maximum time to chill to surface temperature** - Maximum time allowed from the moment of killing until the reaching of the maximum surface temperature allowed at loading.

\(^4\) **Maximum transportation air temperature** - The maximum air temperature to which the meat is allowed to be subjected from the moment loading begins, and throughout the whole duration of the transport.
Maximum daily mean carcase aerobic colony count - Slaughterhouse maximum daily mean carcase aerobic colony count using a rolling window of 10 weeks, allowed for carcasses of the relevant species, as assessed by the operator to the satisfaction of the competent authority, according to the sampling and testing procedures laid out in points 2.1.1, 2.1.2 of Chapter 2, and point 3.2 of Chapter 3, of Annex I to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs (OJ L 338, 22.12.2005, p. 1). Consolidated version can be located at EUR-Lex: http://eur-lex.europa.eu/homepage.html

Core temperature - The maximum core temperature of the meat allowed at the time of loading, and thereafter.

2. Authorisation of premises

2.1 Premises of origin

Authorisations for the transport of warm meat will be granted by Food Standards Scotland (FSS) following submission of an application by the FBO.

The FBO must complete the Warm (above temperature) Meat Transportation Authorisation Application form (at Annex 1) which will be reviewed and signed by the OV, providing the OV is satisfied that the necessary requirements are complied with.

The authorisation will need to record:

- the names and addresses of the establishments which will receive the warm meat;
- the species of animals and the estimated number of carcases to be transported to each receiving establishment; and
- a general description of the products to be produced when the warm meat is delivered, such as cuts of lamb and pork. Note that carcases and large cuts are no longer considered specific products.

- for specific products:
  - a description of the technical reasons for which this product must be transported warm.
  - the approval document from the premises of destination and a description of the requirements that must be complied with during the transport.
• for carcases, half carcases, quarters or half carcases cut into three wholesale cuts:
  ○ a description of the refrigeration system on the vehicle
  ○ the need for each consignment to be accompanied by a declaration stating:
    i. the duration of chilling before loading,
    ii. the time at which loading started,
    iii. the surface temperature at that time,
    iv. the maximum transportation air temperature,
    v. the maximum transport time permitted,
    vi. the date of authorisation and
    vii. the name of the competent authority providing the derogation.

**Note:** Where carcases, half carcases or large cuts are to be transported in the same compartment as meat that has not reached 7°C they must have reached a core temperature of no more than 15°C at the start of the transport.

Once the FBO has completed the application form and the OV is satisfied that the form is correct it is submitted to the Approvals and Certification Team at Approvals@fss.scot.

Once the application has been assessed by an FSS Veterinary Manager, the authorisation to transport warm meat will be supplied to the FBO (see Annex 7).

Where meat is being transported by a wholesaler, the details for the premises of destination should be provided in confidence to the OV, who will treat this as sensitive information. In these circumstances, the details will not be included in the final authorisation. FSS will issue the relevant authorisation in these circumstances (see Annex 2).

The Approvals and Certification Team will keep a central record of all establishments authorised to transport warm meat and will keep records of each authorisation in accordance with Data Protection Act 1998.
2.2 Premises of destination

2.2.1 Premises in Scotland

Where the enforcement authority is FSS, the OV at the plant of origin will contact the OV at the receiving plant and gain written assurance that the facilities and procedures at destination are adequate to receive warm meat (please see Annex 10 for a template).

Note: A copy of the letter/assurance must be sent along with the completed application form to the Approvals Team.

Where the enforcement authority is not FSS, the FSS Approvals and Certification Team will inform the Local Authority (LA) of the recipient establishment by letter (at Annex 3). This allows the LA to notify FSS if they have any concerns over the ability of the receiving establishment to hygienically handle warm meat.

2.2.2 Premises in England, Wales and N. Ireland

Where the receiving establishment is based out-with Scotland the FSS Approvals and Certification Team will forward the letter (at Annex 9) to the FSA to request FSS be informed if there are any concerns of the ability of the receiving establishment to hygienically handle warm meat.

2.2.3 Premises not in the UK

Where transport takes place to premises outside the UK, the recipient FBO is under the obligation to inform the relevant competent authority before receiving for the first time meat that has not attained 7C.

Note: For all of the above, a list of destinations should still be held by the OV to verify the duration of transport.
3. **Enforcement**

3.1 **Failure to comply**

Where an FBO fails to comply with the conditions of the authorisation, the OV will follow the normal hierarchy of enforcement. The use of Remedial Action Notices (RANs) will be at the discretion of the OV, but are only advisable where the OV deems there to be a significant risk to public health.

An authorisation to transport warm meat may be amended, suspended or revoked.

3.2 **Amendment**

Once an authorisation has been granted it may be amended, suspended or revoked if FSS is satisfied the conditions by which it was granted are no longer being met.

The list of establishments to which a given premises may deliver warm meat will be included in an annex to the main authorisation and can be amended as required by notification to FSS. Once an establishment is authorised, any additional customers should be confirmed within the Warm meat amendment notice (at Annex 4). This will avoid the need for a new authorisation letter to be issued on each occasion.

3.3 **Suspension**

Where the FBO’s controls have not been sufficiently robust at the point of despatch, the OV may choose to recommend the suspension for the transport of warm meat from the slaughterhouse or collocated cutting plant
altogether. FSS will issue the suspension notice (at Annex 5) for implementation.

The suspension will remain in place for one month or until such time as the FBO provides sufficient guarantees that the transport of warm meat can resume in line with the legislation and the warm meat policy.

3.4 Revocation

Where the conditions for the transport of warm meat are seriously breached, or where the period of suspension has lapsed with no guarantees of remedial action offered by the FBO, FSS will consider the revocation of the authorisation to transport warm meat from a given premises (at Annex 6).

- This would include breaches such as: the transport does not comply with current legal requirements.

- the FBO has not kept records of the meat transported warm (for example, species, volumes, destinations, travel time)

- the FBO did not advise the OV of any proposed variations in the use of the authorisation (for example, species, destinations)

3.5 Appeals procedure

Where an amendment, suspension or revocation is issued, the FBO will have the right to appeal this decision.

The FBO can make their appeal by writing to Operations, Director of Operations, Food Standards Scotland, Pilgrim House, Old Ford Road, Aberdeen, AB11 5RL within 21 days of the date of the notice.

The effect of the notice will remain in place during the appeal so the FBO must cease transportation of warm meat to establishments no longer contained in their authorisation.

The outcome of the appeal will be communicated to the OV and to the FBO within 20 working days.
4. Annexes

Annex 1  Warm meat transportation Application
Annex 2  Authorisation letter – Commercially Sensitive
Annex 3  LA notification letter
Annex 4  Warm meat amendment notice
Annex 5  Warm meat suspension notice
Annex 6  Warm meat revocation notice
Annex 7  Authorisation letter – NOT Commercially Sensitive
Annex 8  Authorisation review letter
Annex 9  Notification to FSA – Recipient out-with Scotland
Annex 10 OV to OV email template