# Chapter 2.11 Warm Meat

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1</td>
<td>Introduction</td>
</tr>
<tr>
<td>Section 2</td>
<td>Authorisation of Establishments</td>
</tr>
<tr>
<td>Section 3</td>
<td>Enforcement</td>
</tr>
<tr>
<td>Section 4</td>
<td>Annexes</td>
</tr>
</tbody>
</table>
1. Introduction

1.1 Background

On 6 March 2014, the Scientific Panel on Biological Hazards (BIOHAZ) of the European Food Safety Authority (EFSA) adopted a scientific opinion 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*), which cause decay and thus render food unacceptable for human consumption, can reach critical levels more quickly than pathogens. This depends 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 Regulation (EC) 2073/2005. It can be used as an indicator of the upper limit of the concentration of any spoilage bacteria present on the meat.

As a result of the EFSA opinions and the subsequent amendments to Regulation (EC) No 853/2004, competent authorities may authorise alternative more flexible approaches, based on surface and air temperatures. The temperature conditions during the transport of fresh meat must not deviate from the principle that the meat should reach 7°C by a continuous decrease of temperature. The continuous temperature reduction, 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 the removal of body heat.

EU hygiene legislation requires the FBO to ensure a temperature of no more than 7°C is reached throughout the meat of domestic ungulates along a chilling curve.
that ensures a continuous decrease of the temperature. This temperature must also be maintained during storage and transport.

1.2 Legal requirements

Meat must attain the temperature of 7°C before transport, and remain at that temperature during transport.


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 specific products from one establishment to another takes place in accordance with the requirements specified by the competent authorities of both origin and destination
- the meat leaves 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 transport takes no more than two hours and is justified for technological reasons

**Note:** Specific products do not include carcases, half carcases, quarters and half carcases cut into three wholesale cuts, and refer to products where chilling is not recommended as it may not 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.

1.2.2 Transport of 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 start before 7°C is attained providing that:

- the temperature is monitored and recorded within the framework of the HACCP principles
the FBO despatching and transporting the carcases, half carcases, quarters and half carcases cut into three wholesale cuts have in place documented authorisation for this purpose from the competent authority from the place of departure.

The transport vehicle must be refrigerated and the vehicle must be fitted with a device that monitors and records the air temperatures to which the carcases, half carcases, quarters and half carcases cut into three wholesale cuts will be subjected. This is so that the competent authorities can verify compliance with the time and temperature conditions set out below:

For a maximum transport time¹ of 6 hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature²</th>
<th>Maximum time to chill to surface temperature³</th>
<th>Maximum transportation air temperature⁴</th>
<th>Maximum daily mean carcase aerobic colony count⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovine and caprine</td>
<td>7°C</td>
<td>8 hours</td>
<td>6°C</td>
<td>log₁₀ 3.5 cfu/cm²</td>
</tr>
<tr>
<td>Bovine</td>
<td>7°C</td>
<td>20 hours</td>
<td>6°C</td>
<td>log₁₀ 3.5 cfu/cm²</td>
</tr>
<tr>
<td>Porcine</td>
<td>7°C</td>
<td>16 hours</td>
<td>6°C</td>
<td>log₁₀ 4 cfu/cm²</td>
</tr>
</tbody>
</table>

For a maximum transport time¹ of 30 hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature²</th>
<th>Maximum time to chill to surface temperature³</th>
<th>Core temperature⁶</th>
<th>Maximum transportation air temperature⁴</th>
<th>Maximum daily mean carcase aerobic colony count⁵</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>log₁₀ 4 cfu/cm²</td>
</tr>
</tbody>
</table>

For a maximum transport time¹ of 60 hours:

<table>
<thead>
<tr>
<th>Species</th>
<th>Surface temperature²</th>
<th>Maximum time to chill to surface temperature³</th>
<th>Core temperature⁶</th>
<th>Maximum transportation air temperature⁴</th>
<th>Maximum daily mean carcase aerobic colony count⁵</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>log₁₀ 3 cfu/cm²</td>
</tr>
<tr>
<td>Bovine</td>
<td>7°C</td>
<td>24 hours</td>
<td>15°C</td>
<td>3°C</td>
<td>log₁₀ 4 cfu/cm²</td>
</tr>
</tbody>
</table>
1. **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. **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 allowed from the moment of killing until the reaching of the maximum surface temperature allowed at loading.**

4. **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.**

5. **Slaughterhouse maximum daily mean carcase aerobic colony count using a rolling window of 10 weeks, allowed for carcases 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).**

6. **The maximum core temperature of the meat allowed at the time of loading and thereafter.**

The vehicle transporting the meat may only collect from one slaughterhouse per transport.

Carcases, half carcases, quarters or half carcases cut into three wholesale cuts subject to the derogation, must have a core temperature of 15°C 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 7°C core temperature.

### 1.2.3 FBO declaration

The FBO must provide a declaration to accompany the consignment which must state:

- the duration of chilling before loading
- the time at which the loading of the carcase, half carcases, quarters and half carcases cut into three wholesale cuts was started
- the surface temperature at that time
- the maximum transportation air temperature to which the carcases, half carcases, quarters and half carcases cut into three wholesale cuts may be subjected
• the maximum transport time permitted
• the date of authorisation and the name of the competent authority providing the derogation

The FBO of destination must notify the competent authority before they receive carcases, half carcases, quarters of half carcases cut into three wholesale cuts not attaining 7°C for the first time.

**Regulation:**
Commission Regulation (EU) 2017/1981 Article 1 (1) (a) and (b)
2. Authorisation of Establishments

2.1 Establishment of origin

The FBO must complete the Above Temperature Meat Transportation proforma (Annex 1) application form to transport meat above temperature which will be reviewed and signed by the OV, providing the OV is satisfied that the necessary requirements are complied with.

The authorisation must record:

- the names and addresses of the receiving establishments
- the species
- the estimated number of carcases, half carcases, quarters and half carcases cut into no more than three wholesale cuts to be transported to each receiving establishment
- a general description of the products to be transported

Note: Specific products do not include carcases, half carcases, quarters and half carcases cut into three wholesale cuts unless there is a justifiable technological reason.

Where specific products are concerned, the following are required:

- a description of the technical reason(s) for which this product must be transported above temperature
- the approval document for the establishment of destination
- a description of the requirements that must be complied with during the transport

For the transport of carcases, half carcases, quarters or half carcases cut into three wholesale cuts, the following are required:

- a description of the refrigeration system on the vehicle
each consignment to be accompanied by a declaration stating:
  - the duration of chilling before loading
  - the time at which loading started
  - the surface temperature at that time
  - the maximum transportation air temperature
  - the maximum transportation time permitted
  - the date of authorisation
  - the name of the competent authority providing the derogation

where carcases, half carcases or large cuts are to be transported in the same compartment as meat that has not yet attained 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 with the application:
  - the OV issues the authorisation by completing the Authorisation for the transport of above temperature meat (Annex 2)
  - the OV sends a copy of the authorisation to the Approvals and Registrations Team in York

Where meat is being transported by a wholesaler, the details for the establishment 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.

The Approvals and Registration Team in York will keep a central record of all establishments authorised to transport meat above temperature and will keep records of each authorisation issued under the derogation.

### 2.2 Establishments of destination

Where transport takes place within the UK, the OV will inform the relevant competent authority (CA) of the recipient establishment by letter (Annex 3). This allows the CA to notify the OV if they have any concerns over the ability of the receiving establishment to hygienically handle meat above temperature.

Where transport takes place to establishments outside the UK, the recipient FBO is under obligation to inform the relevant CA before receiving meat for the first time that has not attained 7°C.
A list of destinations should still be held by the OV to verify the duration of transport.

Where necessary, a copy of the communication from the recipient establishment must be sent along with the completed application form to the Approvals and Registrations Team in York.

Where the enforcement authority at both the despatching and receiving establishments is the FSA, the OV at the establishment of origin will contact the FVL / FVC at the receiving establishment and gain written assurance that the facilities and procedures at destination are adequate to receive meat above temperature.
3. Enforcement

3.1 Failure to comply
3.2 Amendment
3.3 Suspension
3.4 Revocation
3.5 Appeals procedure

**Note:** the FSA has requested that no formal enforcement action be taken under Regulation 2017/1981 against those establishments that cannot comply as yet with the Regulation.

These establishments must still comply with the conditions of their authorisation and as such are still subject to its amendment, suspension or revocation. They are also subject to informal enforcement under Commission Regulation (EU)2017/1981.
3.1 Failure to comply

Where an FBO fails to comply with the conditions of the authorisation granted under Commission Regulation (EU) 2017/1981, 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 above temperature meat may be amended, suspended or revoked.

3.2 Amendment

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

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

Where an establishment is delivering outside the UK, the list of establishments will be held by the OV in order to assess the maximum time of transport.

3.3 Suspension

Where the FBO controls have not been sufficiently robust at the point of despatch, the OV may choose to issue the suspension for the transport of above temperature meat (Annex 5) from the slaughterhouse or co-located cutting plant altogether. The suspension will be implemented by completion of the relevant form.

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

Where the conditions for the transport of above temperature meat are seriously breached, or where the period of suspension has lapsed with no guarantees of remedial action offered by the FBO, the OV may consider the revocation of the approval to transport above temperature meat from a given establishment.

This would include breaches such as:

- the conditions detailed in Commission Regulation (EU) 2017/1981 Article 1 (1) (a) for specific products are not complied with.
- the conditions detailed in Commission Regulation (EU) 2017/1981 Article 1 (1) (b) are not complied with
- the parameters detailed in Commission Regulation (EU) 2017/1981 Article 1 (1) (a) and (b) are not met

The OV will complete the Above temperature meat revocation notice (Annex 6) and send to the Approvals and Registration Team in York.

3.5 Appeals process

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 the Operations Head Veterinarian 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 above temperature 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 | Above temperature meat transportation proforma |
| Annex 2 | Authorisation letter |
| Annex 3 | LA notification letter |
| Annex 4 | Above temperature meat amendment |
| Annex 5 | Above temperature meat suspension |
| Annex 6 | Above temperature meat revocation |
| Annex 7 | Authorisation letter (wholesale) |