

Specified Risk Material Controls

Chapter Overview

**In this
chapter**

The table below list the sections in this chapter.

Section	See Page
Section 1 - Introduction	1-1
Section 2 - MHS Role	2-1
Section 3 - Verification and Inspection Tasks	3-1
Section 4 - Operational Policy	4-1

Annex 1	Risk Based Decision Tool for SRM Inspections - Aide Memoire
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Section 1 – Introduction

Section Overview

In this section

The table below lists the topics in this section.

Topic	See Page
Purpose	1-2
Legislation	1-3

Purpose

Background The correct removal and disposal of SRM in slaughterhouses and cutting plants is essential to minimize risks to public health associated with TSEs in cattle, sheep and goats.

Specific prohibitions The TSE Regulations specifically prohibit the sale or supply of:

- Any SRM, or food containing SRM for human consumption, and
- Any SRM for use in the preparation of any food for human consumption.

Duties of the FBO It is the FBOs duty to comply with the legislation.

Introduction to MHS duties The MHS has a number of duties relating to SRM controls, centring on ensuring that the FBO continually complies with the legislation, including:

- inspection of carcasses
- verification that the FBO carries out their duties
- audit of GHP.

Outside of approved establishments Local authorities enforce the TSE Regulations outside approved establishments.

Legislation

Applicable regulations

The following SRM legal controls are applicable:

- (EC) 999/2001 (as amended) specifies what SRM is and that it shall be removed in:
 - a slaughterhouse, or, if appropriate, other place of slaughter
 - authorised cutting plants, in the case of OTM bovine vertebral column or mature ovine and caprine spinal cord,
 - the Regulation is directly applicable throughout all Member States and lays down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies (TSEs) including, in Annex V the definition of SRM
- (EC) 854/2004 specifies official controls are to verify continuous compliance with FBOs own procedures concerning controls on SRM:
 - check the removal, separation and stining of SRM
 - verify the FBO takes all necessary measures to avoid contamination of meat with SRM during slaughter (including stunning) and removal of SRM.
- GB legislation:
 - The TSE (England) Regulations 2008
 - The TSE (Wales) Regulations 2008
 - The TSE (Scotland) Regulations 2006 (as amended)
- The Animal By-Products (England) Regulations 2005,
- The Animal By-Product (Scotland) Regulations 2003, and
- The Animal By-Product (Wales) Regulations 2006

classify SRM as Category 1 Animal By-Product via the provisions of Article 4 of EC Regulation 1774/2002 and set out the rules for its disposal.

Section 2 - MHS Role

Section Overview

In this section

The table below lists the topics in this section.

Topic	See Page
Inspection Duties in Slaughterhouses	2-2
Definition of SRM	2-4
Enforcement	2-7

Inspection Duties in Slaughterhouses

Frequency of checks The table below lists the checks that should be carried out, the frequency and the Authorised Officer responsible for performing that task.

Task	By	Frequency
Carry out verification of FBO controls	OV or MHI	As required to verify the FBOs compliance with their procedures and HACCP systems relating to removal, storage, handling, processing, use or transport of SRM & to ensure the FBOs continuous compliance with SRM legislation. Note: This does not remove the requirements of (EC) 854/2004 to inspect every carcase to verify the removal of SRM.
SRM reconciliation: Inspect the FBOs records of SRM consignments	OV or MHI	Monthly
Destination for SRM: Check receiving ABP plant is approved for Category 1 ABP (SRM)	OV	Monthly
In the case of SRM bovine vertebral column removal, or SRM sheep and goat spinal cord removal, carcasses are dispatched to appropriately authorised cutting plants.	OV or MHI	Paperwork checked at regular intervals
Take appropriate enforcement action	OV	When non-compliances are noted

AUDIT	By	Frequency
Audit of FBOs procedures for SRM management	OV	As determined by risk assessment Reference: See Chapter 4 Audit for further information.

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Inspection Duties in Slaughterhouses, Continued

**Separation
and the blue
striped label**

Beef carcasses, half carcasses, half carcasses cut into no more than three wholesale cuts, and quarters that do not require vertebral column to be removed as SRM must be marked with a blue striped label in the slaughterhouse prior to despatch to the cutting premises.

Regulation: (EC) 1760/2000
(EC) 999/2001 Annex V, 11.3(a).

Any carcass that does not display a blue striped label, whatever the reason, must be regarded as containing SRM and must have its vertebral column removed as SRM.

The commercial document should indicate the number of carcasses in the consignment that require SRM VC removal as well as the number of carcasses where SRM VC removal is not required.

Regulation: (EC) 999/2001, Annex V, 11.3(b)

Definition of SRM

MHS key issue It is imperative that all OVs and MHIs are aware of the parts of animal carcasses that are classified as SRM by EU regulation 999/2001. MHS staff can use the following tables.

Cattle – All Member States	
All ages	<ul style="list-style-type: none"> • tonsils • intestines from the duodenum to the rectum • mesentery.
Over 12 months	Skull excluding the mandible and including the brain and eyes, and spinal cord.
Over 30 months	Vertebral column including the dorsal root ganglia, but excluding: <ul style="list-style-type: none"> • vertebrae of the tail • spinous and transverse process of the cervical, thoracic and lumbar vertebrae • median sacral crest and wings of the sacrum.

Sheep and Goats - UK and all other Member States	
All ages	The spleen and the ileum. <u>Note:</u> To ensure that all of the ileum is removed, approximately 60 cm of the terminal small intestine should be removed and disposed of as SRM starting from the ileo-caecal junction, upwards and away from the caecum.
Over 12 months (or permanent incisor erupted)	Skull, including the brain and eyes, tonsils, spinal cord. <u>Note:</u> Skull does not include horns.

Exceptions to removal of SRM in the slaughterhouse There are certain exceptions to the requirement to remove SRM as soon as practicable after slaughter as outlined in the table overleaf.

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Definition of SRM, Continued

Exception	If....
Older sheep or goat carcasses requiring spinal cord removal	accompanied by a Transfer Permit transferred to a cutting plant authorised for removal of spinal cord, or transferred to a cutting plant in another member state where the FSA has a pre existing agreement with the Competent Authority
Bovine SRM vertebral column from carcasses from animals over 30 months	Accompanied by a Transfer Permit and transferred to an approved cutting plant authorised for removal of vertebral column from animals aged over 30 months at slaughter, in UK, or any other Member State. Should also be accompanied by commercial documentation, indicating the number of carcasses or wholesale cuts from which vertebral column is required to be removed, or is not required to be removed
SRM bovine vertebral column from the carcasses of animals over 30 months of age imported live from countries with a controlled or undetermined BSE risk and slaughtered in GB	Accompanied by a Transfer Permit and transferred to an approved cutting plant authorised for removal of vertebral column in UK or any other Member State. Should also be accompanied by commercial documentation, indicating the number of carcasses or wholesale cuts from which vertebral column is required to be removed, or is not required to be removed
Bovine carcasses of animals over 30 months of age containing SRM vertebral column imported, in accordance with the community TSE Regulations	Transferred to an approved cutting plant authorised for removal of vertebral column. Should also be accompanied by commercial documentation, indicating the number of carcasses or wholesale cuts from which vertebral column is required to be removed, or is not required to be removed.
Material for use in education or research purposes	the use of animal by-products is for diagnostic, educational and research purposes

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Definition of SRM, Continued

Mechanically separated meat

Mechanically separated meat means the product obtained by removing meat from flesh-bearing bones after boning, using mechanical means resulting in the loss or modification of the muscle fibre structure.

Mechanically separated meat (MSM) derived from cattle, sheep or goat bones, including bone in cuts, must not be used in the preparation of food for human or animal consumption.

Note: A mechanical process may be approved by the FSA provided the end product does not result in the loss or modification of the muscle fibre structure

Note: This does not include meat recovered during the boning process by the use of hand-held powered knives that do not use pressure or suction.

Enforcement

FBO fails to comply with regulations

If the FBO fails to comply with the regulations the OV must:

- notify the FBO of all deficiencies as soon as possible
- assess the breach and take proportionate enforcement action (see below)
- record the breach on the ABP 7/3 (Bovine Daily SRM Record) and ABP 7/4 (Sheep and Goats Daily SRM Record).

Reference: See Chapter 9 "Forms"

If carcase contains SRM at inspection

Enforcement of SRM breaches should follow the proportionate and risk-based approach as detailed below:

Where:	Then:
the FBO has effective HACCP based systems in place, including effective training of staff	an incident in which a carcase with SRM is presented at post mortem inspection, resulting from an isolated human error, should be treated in a risk-based and proportionate manner. The incident must be brought to the FBO's attention and recorded on the enforcement programme (ENF 11/5). Should a contravention be repeated, the issue should be escalated through the hierarchy of enforcement.
HACCP based systems exist but they have not been effectively implemented or maintained	where this deficiency has led to SRM being presented for inspection, then a warning letter must be sent to the FBO, clearly setting out the deficiencies they need to rectify. The FBOs actions must include addressing the root cause of the problem, to ensure there is no recurrence. Escalate through the hierarchy of enforcement.
Repeated instances of SRM presentation occur	record and retain evidence of each non-compliance and after 3 occasions, refer for investigation.
SRM has not been removed from a carcase and has been despatched to another premises or exported (excluding VC consigned to an approved cutting plant)	this SRM breach should be referred to DPU (by the OV/LV/BM) for internal investigation by e-mail to delivery.team@mhs.gov.uk or by telephone to 01904 455450. The breach should also be referred, by the OV, for criminal investigation.

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Enforcement, Continued

If carcass contains SRM at inspection, continued

SRM controls remain a high priority for the MHS and there continues to be an expectation of 100% FBO compliance.

Evidence gathering for SRM contraventions

If the FBO presents carcass(es) (or offal being harvested for human consumption) for inspection, that contain SRM or where SRM is attached, the following enforcement action should be taken by the MHS:

- detain carcass(es)/offal under MHS control (if necessary using a Detention of Food Notice issued under Regulation 9 (5) of the Food Safety Hygiene (E/S/W) Regulations 2006.) (ENF 11/26)
- make contemporaneous detailed records in the daybook or personal notebook and sign them
- obtain photographic evidence if possible
- obtain verification of findings from other MHS staff if possible
- notify the FBO
- retain a sample of the SRM as evidence and freeze it to preserve its condition (until the case is concluded), and
- record details on ABP 7/3 and ABP 7/4.

Note: On completion of evidence gathering, and the removal of all SRM, the carcass/offal may be health marked and enter the food chain.

The matter should be referred for investigation after the third non-compliance has been identified.

Record of action taken

Enforcement action must be recorded on the Enforcement Programme (ENF 11/5). FBO non-compliances must also be recorded on the monthly ABP 7/5.

Section 3 – Verification and Inspection Tasks

In this section

The table below lists the topics in this section.

Topic	See Page
Verification Tasks for Pre-Slaughter and Pre-Cutting Period	3-2
At Slaughter – Inspection and Verification Duties	3-5
Verification Tasks During Slaughter	3-8
Verification Tasks at Despatch	3-14
Verification Tasks for the Cutting Plant	3-16
Verification Tasks for the Management of SRM Staining, Transfer and Storage	3-19
Verification Tasks for the Disposal of SRM by Incineration or Co-Incineration	3-23

Verification Tasks for Pre-Slaughter & Pre-Cutting Period

Authorisations and approvals

The establishment must have the appropriate authorisations/ approvals in place for the operations it is carrying out, including approval for operation of the establishment.

Bovines:

- Authorisation to enable cutting plants to remove SRM vertebral column from:
 - UK bovines over thirty months of age at slaughter
 - bovines imported from countries with a controlled or undetermined BSE risk aged over 30 months at slaughter,
 - imported bovine carcasses, half carcasses, half carcasses cut into no more than 3 wholesale cuts, and quarter carcasses from animals over 30 months of age at slaughter.

Ovine/Caprine:

- Authorisation to enable cutting plants to remove spinal cord in sheep and goats over 12 months, or which have a permanent incisor erupted through the gum.
-

Animals found dead on arrival, dead in lairage or stillborn

The same rules on age requirements for BSE testing (Chapter 2.6, Section 2) apply to animals found dead on arrival or dead in lairage.

FBOs may contact a collector (their normal collector or the National Fallen Stock Company (NFSCo) on 0845 054 8888) within 24 hours of death to arrange delivery to an approved sampling site. If delivering the carcass themselves, they should contact an approved sampling site to agree this within 24 hours and must deliver the carcass within a further 48 hours. The barcode label must be added to a movement card from the passport and sent to the sampling site with the carcass. The passport must be returned direct to BCMS.

The OV can also authorise the FBO to take the sample and send it to a private laboratory (code FSCA2) and dispose of the body as Category 1 ABP for incineration.

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Verification Tasks for Pre-Slaughter & Pre-Cutting Period, Continued

Animals found dead on arrival, dead in lairage or stillborn, (continued)

Carcases of cattle awaiting a BSE test result must be sent for destruction or destroyed at Category 1 ABP premises approved to receive such carcasses by either direct incineration or rendering followed by incineration of the rendered material.

Sheep and goats that require testing must have the heads collected and despatched for testing.

Hygiene

The following hygiene requirements must be met:

- premises, machinery and implements used in SRM removal are clean before operations begin and during processing to prevent cross contamination
 - storage and transport bins are clean, leak free and impervious, indelibly marked/labelled with well fitting lids which are used when the bin is used to store or transport SRM
 - bins are washed and disinfected when required and not used for any other purpose
 - bin liners, if used to line SRM bins, are used once only and disposed of entirely as SRM.
-

Stain

The FBO must ensure that:

- there is a sufficient supply of patent blue V E131
 - the dye is prepared correctly using measuring equipment
 - the data sheets are available.
-

Specified solid waste management

All drains in areas where SRM is processed must have drain traps or gratings in place for the collection of carcase and offal solid waste. Specifications are:

- a maximum mesh size of 6mm
Regulation: (EC) 1774/2002, as amended by (EC) 808/2003, Annex II, Chapter IX, Paragraph 1.
 - a maximum size of 4mm where the water is discharged into a public sewer drain.
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Verification Tasks for Pre-Slaughter & Pre-Cutting Period, Continued

**Specified
solid waste
management,**
(continued)

Note: This is required by the Environment Agency and the OV should advise the FBO and report the matter to the Environment Agency if this is not the case.

All material collected by these traps/gratings must be treated as SRM.

Training

The FBO must arrange or establish, in consultation with the OV, a staff training programme to ensure that all staff involved in the removal, separation, staining and disposal of SRM are fully aware of the requirements of the regulations, so they can operate a system that complies with the regulations.

At Slaughter - Inspection and Verification Duties

Inspection and Verification	By	Frequency
Check on the staining, further handling and disposal of SRM and report any cases of FBO failure	OV/MHI/MT	When establishing the frequency of checks the OV may use the 'Risk Based Decision Tool for SRM Inspections' at Annex 1 as an aide memoire. This may be daily, or once every five days of processing. Checks should take no longer than 30 minutes.
<p>Note: The 'Risk Based Decision Tool' at Annex 1 is designed to assist the OV in making a decision as to whether checks on the staining and further handling of SRM should take place on a daily basis, or less frequently.</p> <p>Forms ABP 7/4 and 7/5 have been revised to remove the need for hourly checks on the staining and further handling of SRM.</p> <p>Time coding of off-line SRM checks (staining and further handling) should reflect a reduced frequency of checks.</p> <p>If there is any reason the OV considers that a higher level of checks is required, they should discuss this with their LV in the first instance.</p> <p>Note that every carcase will still be checked for the removal of SRM as part of routine post mortem inspection.</p>		
<p>Cattle Identification:</p> <p>Imported cattle:</p> <p>Check the national prefix letters on the ear tag and passport when carrying out the cattle identification checks immediately post slaughter to ensure that the FBO has identified any imported bovine animal which may require bovine vertebral column removal.</p>	OV/MHI/MT	All cattle.

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At Slaughter - Inspection and Verification Duties, Continued

Inspection and Verification	By	Frequency
<p>Age checks: Bovine: See Chapter 2.5 "Animal ID" for additional information.</p> <p>Ovine/Caprine: The FBO must establish a system that allows the MHS to be confident that carcasses that require their spinal cord to be removed as SRM (See sub topic: Age checks of ovine/caprine animals) are identified</p> <p>MHS must perform verification checks on FBO systems to verify that animals that do not require spinal cord removal have no permanent incisors erupted through the gum, or they are not more than 12 months.</p>	<p>OV/MHI/MT</p> <p>OV/MHI/MT</p>	<p>All cattle.</p> <p>5% of ovine/caprine presented as 'young'. <i>These checks should be random throughout the day, and take place in 'real time', i.e. as the FBO representative performs the check</i></p>
<p>Carcase inspection:</p> <p>Carry out an inspection of every carcase presented to ensure that all SRM has been removed (apart from bovine vertebral column and sheep spinal cord where applicable).</p>	<p>OV/MHI/MT</p>	<p>All carcasses.</p>

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Verification Tasks during Slaughter

FBO age checks of ovine/caprine animals

FBOs must establish a system which identifies animals that are either over one year old, or have one or more permanent incisor erupted, to allow SRM to be removed from the carcass.

Options may include:

- ante-mortem checks (for example, some batches of spring lambs are clearly identifiable at ante-mortem inspection),
- post-mortem dentition checks undertaken by FBO staff (for example, at the point of head removal where this occurs manually), or
- by removing SRM by default from all animals (for example, when ewes are being processed).

MHS verification of age checks of ovine/caprine animals

The OV must be satisfied that such systems provide the confidence required to apply the Health Mark after the completion of post-mortem inspection.

Checks should be undertaken to verify these systems are working.

The OV must also use other information available to him to assist in this verification task, for example, Food Chain Information (in the form of AML1), and the previous history of that particular establishment with respect of the number or ovine/caprine carcasses that require splitting to allow spinal cord removal.

Note: OVs should be aware that :

- processing patterns may change from year to year
- the number of animals presented requiring spinal cord removal varies according to the time of year
- the location of provenance of the sheep/goats can change and
- the range and number of suppliers or sources from which the FBO might use in procuring animals.

Captive bolt stunning

Where captive bolt stunning is used, the captive bolt should, if possible, be wiped clean after each use with disposable wipes that are then discarded as SRM.

Ideally the bolt hole should be plugged to prevent escape of SRM during handling and dressing.

Verification Tasks during Slaughter, Continued

Bovine heads from cattle aged over 12 months of age

The following standards must be met:

- care is exercised and all hygienic precautions taken when detaching heads or removing bovine tongues
- when bovine heads are skinned, the skinning (flaying) is complete
- if head meat is to be harvested, the following conditions should be met:
- control measures should be in place to prevent the possible contamination of the head meat with CNS tissue. This includes harvesting the head meat in a dedicated area, separate from the slaughterline. Where heads are removed from conveyor or hook systems before harvesting, any bolt hole on the frontal bone, and the foramen magnum should be sealed with a bung, stopper or sponge. If the brainstem is required for BSE testing, the foramen magnum should be sealed immediately after sampling
- head meat must not be harvested from heads where the eyes are damaged or lost prior to, or after slaughter, or from heads that have not been sealed as above.
- FBO's should ensure HACCP systems, or equivalent control systems and checks are amended to reflect the measures taken to prevent contamination of the head meat with CNS material.
- a sampling plan using an appropriate laboratory test to detect central nervous system tissue shall be in place to verify that the measures to reduce contamination are properly implemented.

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Verification Tasks during Slaughter, Continued

Bovine heads from cattle aged over 12 months of age,
(continued)

- The contamination prevention measures above need not be applied if the head meat is harvested without removing the head from conveyors or hooks
- heads **must not** be despatched to any other premises for the purpose of head meat harvesting
- the head inspection point is situated close to the point of detachment from the carcass and the head is transported to this point in a manner which is both hygienic and minimises the potential for cross-contamination of meat or surroundings with SRM
- if bovine brains and eyes are removed it is only for a permitted use (e.g. instructional, diagnostic or research purposes) and cannot cause contamination to meat intended for human consumption
- care should be taken during the harvesting process to ensure tonsils are treated as SRM

Note: In bovine heads from cattle aged 12 months or less, only the tonsils are SRM.

Bovine tongues

The following standards must be met:

- tongues are harvested by a transverse cut rostral to the lingual process of the basihyoid bone at the level of the last vallate papillae
 - any material behind the last vallate papillae is disposed of as SRM
 - tongues are harvested after complete flaying and washing of the detached head.
 - tongues are trimmed to remove any residual connective tissue.
 - Animals tested for TSE: the tongues remain correlated with the carcass pending the results.
-

Ovine heads

Sheep over 12 months of age:

- where head meat is harvested the horns must be removed and the head skinned and inspected. After harvesting, the skulls must be disposed of as Category 1 Animal By-Product (SRM).
-

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Verification Tasks during Slaughter, Continued

**Horns
(bovine and
ovine)**

Horns of cattle sheep and goats are not SRM, but the cornual process of the frontal bone is SRM in cattle over 12 months old.

**Bovine spinal
cord**

FBO controls should include:

- Spinal cord should be removed from bovine carcasses using a designated tool or knife to remove the meninges, fat and debris so that no fragments of the spinal cord can remain in the spinal canal.

It is recommended that operatives removing spinal cord from bovines:

- ensure spinal cord and meninges do not come into contact with the floor, or other surfaces of the slaughterhouse
 - cover chain mail gloves with rubber gloves
 - change protective clothing as often as necessary to minimize cross contamination
 - wash hands frequently
 - use clean, sterilised tools for each carcass
 - wash their hands and sterilise their tools after removal of SRM from each carcass.
-

**Removal of
spinal cord**

Band saws that have a water supply should have the water ducted away from the carcass.

Drain grating must have apertures no larger than 4mm, and that the material retained in the grating is disposed of as Category 1 ABP (SRM).

Where cleavers are used the operative should examine the carcass for fragments of SRM and trim any bone spicules and dispose of them as SRM.

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Verification Tasks during Slaughter, Continued

Bone dust Where bone dust is removed from the cut surface of the vertebral column using a low pressure warm water wash, the washings must be prevented from contaminating the slaughterhall or other carcasses.

Handling of SRM The FBO must ensure that all appropriate SRM is:

- removed completely from the carcass as soon as practicable after slaughter and before the carcass is presented for post-mortem health inspection and marking
- removed by staff of the establishment who adopt the necessary hygiene measures to avoid the risk of cross-contamination e.g. avoid touching the carcass with hands or implements which have been used to remove, or come into contact with, SRM without being washed/cleaned in between
- handled in such a way that there is no contact with any other animal material
- processed under hygienic controls that are suitable and sufficient to protect public health.

Material in contact with SRM The following is regarded as SRM:

- any material still attached to SRM (except SRM bovine vertebral column and sheep/goat spinal cord) after dissection of the carcass
- any animal matter that comes into contact with that material or with SRM after it has been removed from the carcass.

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Verification Tasks during Slaughter, Continued

Carcases presented for inspection (ovine & bovine)

Only carcasses which have had all appropriate SRM removed should be presented for inspection.

Exception: Bovine vertebral column or sheep spinal cord can still be present.

Live bovine animals imported into UK from countries with a controlled or undetermined risk

All imported live animals should be treated as domestic animals as far as SRM is concerned.

Pithing

Pithing is prohibited for animals that are intended for human consumption. If pithing has been carried out in contravention of the regulations, the FBO should ensure :

- the dry landing area must be cleaned
- any brain tissue must be wiped away
- any paper towels associated with cleaning SRM contaminated equipment must be placed in the SRM bin
- the carcass must be disposed of as SRM and the disposal overseen by the MHS: includes all parts excluding hides
- the pithed carcass must be kept separate from other carcasses or animal products which are not SRM
- any knives or tools which have been used must be washed and sterilised before being used on any other carcass.

Verification Tasks at Despatch

Verification checks before transfer to an approved, authorised cutting premises

At a slaughterhouse despatching carcasses, the OV/AO is to make verification checks on the FBO documentation to confirm that the carcasses containing SRM VC have been consigned to an approved cutting plant authorised to remove VC (SRM). [Click here for the relevant FSA web page](#)

Note: For despatch of carcasses to Northern Ireland, MHS AOs should liaise with [DARDNI](#) AOs.

Before being transferred to the cutting premises, carcasses requiring SRM vertebral column removal must:

- have received a negative BSE test result if O48M (or if it is an imported healthy 30-48M animal, (24-30 months if found sick at ante mortem/emergency slaughter), which was not born in a Member State which is approved to carry out O48M testing)
- have passed a post-mortem health inspection,
- carry a label not bearing a blue stripe and
- carry a Health Mark.

Loading operations-verification checks

The OV/AO is no longer required to check 100% of the loading operations, nor is there a requirement for the loads to be sealed. Instead, the OV/AO will perform spot checks on loading and documentation. These spot checks should take place on a risk-based frequency, according to the effectiveness of the FBO's controls and the frequency of the loads.

An entry in the Daybook confirming that these checks have been carried out must be made, as a minimum, on a weekly basis. If it takes more than a week between loads, then an entry should be made when a transfer is completed.

Note: The carcasses may be transferred as carcasses, half carcasses, quarters or half carcasses cut into no more than three wholesale cuts.

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Verification Tasks at Despatch, Continued

**Transfer to
an approved,
authorised
co-located
cutting
premises**

Before carcasses can be transferred from the slaughterhouse to co-located cutting premises for vertebral column removal, the OV must be satisfied that an effective control system is established for the removal of vertebral column. This system must be reliable and auditable.

Note: Co-located cutting premises must also be in possession of an authorisation for vertebral column removal.

**Transfer to
multiple
destinations**

FBOs may choose to despatch carcasses for vertebral column removal to multiple destinations.

Verification Tasks for the Cutting Plant

Scope of the instructions

The duties detailed below relate to:

- bovine carcasses from animals aged over 30 months, imported from countries with a controlled or undetermined BSE risk
- bovine carcasses from animals aged over 30 months, imported from countries with a negligible risk, but which have had an indigenous BSE case
- bovine carcasses from animals imported live and slaughtered when aged over 30 months
- bovine carcasses from domestic animals aged over 30 months at slaughter
- older sheep and goats (>12months of age) where removal of spinal cord is taking place.

The risk status of third countries is set out in [Commission Decision \(EC\) 2007/453](#)

MHS attendance during SRM VC removal operations

MHS presence is not required 100% of the SRM VC removal time (please refer to your LV for current attendance requirements)

Verification requirements

MHS staff are required to verify that processing is being undertaken in accordance with the FBO's food safety management procedures and the agreed SRM VC removal RMOP.

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Verification Tasks for the Cutting Plant, Continued

Verification particulars

During the visit to the cutting establishment, particular attention should be paid to the following points, when observed:

- Correct identification and labelling of the carcasses stored in the chillers.
- FBO records on consignments received and number of carcasses processed.
- Adequate separation during processing between meat containing SRM and meat which does not contain SRM
- SRM vertebral column (see SRM chart definition at page 2-4 of this Chapter):
 - removal
 - collection
 - staining and storage.
- SRM spinal cord (sheep and goats):
 - removal
 - collection
 - staining and storage.
- SRM vertebral column/spinal cord is placed in appropriate and labelled SRM containers prior to transfer to main holding container.
- Equipment is cleansed and disinfected after completion of SRM removal.
- FBO must not apply the identification mark to meat intended for human consumption until after all SRM vertebral column/spinal cord has been removed.
- FBO has robust systems in place to ensure that all SRM is removed from imported carcasses (when applicable) before the meat enters the food chain.

MHS staff should also verify ABP consignment documents against the number of carcasses containing SRM vertebral column processed.

An entry in the daybook confirming operations in accordance with the approved RMOP must be made at each visit, if applicable. Any discrepancies or findings must also be written in the daybook and appropriate action taken.

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Verification Tasks for the Cutting Plant, Continued

Mechanically separated meat (MSM)

MSM derived from cattle, sheep or goat bones or bone in cuts cannot be used in the preparation of food for human consumption or animal consumption.

Vertebral column removal

The following standards must be met:

- the plant holds the appropriate authorisation (which includes a Required Method of Operation- (RMOP))
 - effective separation of carcasses containing SRM vertebral column and those containing non-SRM vertebral column is maintained at all times
 - cleansing and disinfection is implemented before processing any non-SRM carcasses
 - carcasses are held in a separate chiller or on separate dedicated rails.
-

Handling of SRM

The FBO is to ensure that SRM is:

- removed by staff of the establishment who adopt the necessary hygiene measures to avoid the risk of cross-contamination e.g. avoid touching the carcass with hands or implements which have been used to remove, or come into contact with, SRM without being washed/cleaned in between
 - handled after removal from the carcass in such a way that there is no contact with any other animal material.
-

Verification Tasks for the Management of SRM Staining, Transfer and Storage

Staining of SRM

Verify all SRM is stained immediately (even if it is going for incineration on site) after removal from the carcass with a 0.5% solution of patent blue V.

Stain application

SRM is stained before it leaves the slaughterhall unless doing so risks contamination of fresh meat. If not, stain is applied as soon as it leaves the slaughterhall and undertaken in a suitable area.

The stain should be applied to each layer of SRM and a suitable tool dedicated to the task used to stir the SRM to ensure it achieves individual coverage.

Stain visibility

The stain is visible over 100% of the surface of all SRM, except sheep and goat heads where it needs to be clearly visible over the whole of the cut surface and majority of the head.

Mixing of animal by-products

A system for disposal of animal by-products is robust to ensure that all by-products are disposed according to their category, or if different categories are mixed with SRM, they are disposed as the higher risk category i.e. SRM Category 1.

SRM (Category 1 Animal By-Product) is kept separate from all other Animal By-Product categories unless it is intended to dispose of all Animal By-Products as category 1.

If SRM is not intentionally mixed with other Animal By-Product categories there must be established procedures and separate lines for disposal to ensure that different by-product categories cannot be mixed.

SRM transfer

All SRM is transferred to correctly identified storage bins without undue delay.

Continued on next page

Verification Tasks for the Management of SRM Staining, Transfer and Storage, Continued

Storage of SRM

All SRM is stored entirely separately from all food material, in containers which are:

- indelibly marked
 - impervious and leak proof
 - lidded.
-

Consignment of SRM

The FBO has:

- records of SRM consigned to an approved destination, either an:
 - approved incinerator, or
 - approved Category 1 processing plant, or
 - approved Category 1 intermediate plant
 - additional records if unstained SRM is being consigned for BSE testing, research, educational or veterinary purpose, and
 - arranged for adequate transportation
 - a commercial document must be produced for each consignment.
-

Commercial documents

The commercial document must specify:

- the name, address and approval number of despatching establishment
- the quantity, weight and description of SRM consigned
- the name of the haulier transporting it
- the date on which the SRM was consigned from the premises
- the destination to which it was consigned including licence number.

Consignment records are retained for 2 years from the date of consignment.

Continued on next page

Verification Tasks for the Management of SRM Staining, Transfer and Storage, Continued

Commercial documents, continued

The OV should verify FBO controls by:

- reconciling the SRM weight records from the establishment with the number of animals slaughtered
 - reconciling weights recorded by the FBO against weights recorded on ABP 7/3 and ABP 7/4
 - investigating other discrepancies
 - taking appropriate action if there is evidence of possible contraventions of the TSE or ABP Regulations.
-

Verification of the removal of VC as SRM in approved, authorised cutting establishments

If meat is found to contain VC (SRM) after the point where it would normally be removed:

- the meat should be detained if necessary (see Chapter 7, Enforcement)
- the FBO should be required to remove the SRM under MHS supervision
- record evidence of the non-compliance
- issue verbal warning.

When VC is found in packed meat the FBO may be permitted to reprocess and remove the SRM under MHS supervision, if this is practical. If this is impractical, the OV may declare the meat unfit as per the Hygiene Regulations.

- For a **repeated** non-compliance, the OV should:
 - detain the meat (if necessary) and require the FBO to remove SRM under MHS supervision.
 - record non compliance and issue written warning or consider referral for investigation, or possible suspension of the authorisation to remove SRM VC.
-

Continued on next page

Verification Tasks for the Management of SRM Staining, Transfer and Storage, Continued

Verification of the removal of VC as SRM in approved, authorised cutting establishments (continued)

- If it is a **major** non-compliance, then referral for investigation or suspension of the authorisation to remove SRM VC should be considered. The OV should contact the LV and VetTec before any of these decisions are made. If suspension is the chosen option then this will come into operation 21 days after the notice is issued (subject to appeal by the FBO). This period should give the FBO the opportunity to take corrective action otherwise the suspension will come into effect.
- A **major** non-compliance is regarded as:
 - when an attempt to break the law is suspected, irrespective of where it is discovered, or
 - when meat containing SRM has been despatched from the cutting plant.

In the event of SRM having been despatched from the cutting plant, VetTec must be informed immediately (Telephone 01904 455774)

Verification of the disposal of VC as SRM in approved, authorised cutting establishments

- If the OV detects Category 1 material (SRM) **identified for disposal** as Category 2 or Category 3, the OV should serve a notice requiring the resultant mixture to be disposed of as Category 1 (ENF 11/12). The OV should consider enforcement action in accordance with MHS' Enforcement Policy.
- If the OV finds evidence that Category 1 material (SRM) **has been disposed of** as Category 2 or Category 3 material, the OV should consider enforcement action in accordance with MHS' Enforcement Policy and notify Animal Health and the relevant Local Authority as soon as possible. Animal Health will carry out a risk assessment to determine (with Defra) what, if any, further action is required to safeguard animal health.

Verification Tasks for the Disposal of SRM by Incineration or Co-Incineration

Disposal of SRM by incineration

SRM from certain animals that require TSE testing must be disposed of by incineration or by rendering followed by incineration.

Reference: See Chapter 2.6 "TSE Testing" for additional information.

The OV must obtain a declaration from the consignee confirming that this material is incinerated after processing.

Category 1 SRM by incineration

(EC) 999/2001 requires that the by-products from tested animals that have not been tested negative for a TSE must be disposed of by incineration or rendering followed by incineration:

- carcasses, blood, hides/skins/fleeces and body parts from animals tested positive to a TSE
- carcasses, blood, hides/skins/fleeces and body parts from "no test" bovine or caprine animals
- carcasses, blood, hides and all body parts of insufficient test animals
- the carcass before and two carcasses after a positive bovine, their blood, hide (unless individually identified) and body parts
- the carcass before and two carcasses after an insufficient test bovine, their blood and all body parts,
- any body part from an animal that has been sampled for TSE that is disposed of before a test result is received.

Regulations: (EC) 999/2001 Annex III .Chapter A. I.6.3 & 6.4
(EC) 999/2001 Annex III. Chapter A II.7.3 & 7.4
(EC) 1774/2002 Article 4(2) and 4(3).

Section 4 - Operational Policy

Section Overview

In this section

The table below lists the topics in this section.

Topic	See Page
Bovine SRM – Intestines, Mesentery	4-2
Removal of the Spleen from Sheep, Lambs and Goats	4-3
Removal of the Ileum from Sheep, Lambs and Goats	4-4
Unstained Specified Risk Material	4-5

Bovine SRM - Intestines, Mesentery

**Intestines
and
mesenteries**

The term intestines include the large and the small intestines from the duodenum to the rectum. Mesentery is the connective tissue attached to the intestinal loops.

**Removal and
separation of
green offal**

Green offal must be removed completely and hygienically from the carcase by plant staff and be presented for inspection. Total separation of the intestines from other green offals must be carried out in the gut room and must include the whole length of intestines including any bag used in bunging. Intestines and the mesentery, which are categorised as SRM, must be placed immediately in an SRM bin and stained, unless delayed post mortem inspection ('cold inspection') arrangements have been agreed with the FBO.

Note: If the FBO does not wish to separate green offals from intestines, stain and treat as Category 1 Animal By-Product (SRM).

Continued on next page

Removal of the Spleen from Sheep, Lambs and Goats

Removal and separation of the spleen

The spleen of all sheep, lambs and goats is SRM. Spleens must be removed completely and, wherever possible, whole. Ideally, separation of the spleen from green offal should take place in the slaughterhall under the constant supervision of MHS staff.

Where separation of the spleen takes place in the gut room, MHS staff must carry out regular inspections during the day to ensure that all splenic material is completely separated from the green offal, placed in the SRM bin and stained.

Inspection of the spleen

The FBO must present individual spleens for inspection by the MHI or OV so that the MHS may monitor their complete separation and fulfil the inspection requirements. The spleen must remain correlated with the carcass until inspection is completed.

If the inspection shows that the presented spleen is not complete, the MHI must immediately alert the plant operative to carry out additional checks.

Disposal of the spleen

Following inspection, the FBO must stain and dispose of the spleen as SRM (Category 1 Animal By-Product).

Removal of the Ileum from Sheep, Lambs and Goats

Ileum definition and anatomical location

The ileum is defined as the distal section of the intestine between the jejunum and the caecum. It is attached to the caecum by the ileo-caecal ligament and meets the caecum at the ileo-caecal junction.

Ileum separation

Ileum separation should be carried out in the gut room after post-mortem inspection in accordance with the following:

- to allow for a margin of error, approximately 60 cms (24") of intestine from the ileo-caecal junction, towards the small intestine, should be removed in each case. Staff are not required to measure the length of intestine but should use their judgement
 - the removed section of small intestine must be treated as SRM (Category 1 Animal By-Product).
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Ileum not separated

If the FBO does not wish to separate the ileum from the intestines of sheep and goats they must ensure that the ileum and any attached intestine is treated as SRM (Category 1 Animal By-Product).

MHS duties

Having due regard to hygiene and the risk of cross-contamination, MHS staff must verify FBO controls by:

- undertaking spot checks on FBOs when removing the ileum to ensure that all ileum is removed from the intestines and stained as SRM (Category 1 Animal By-Product) or all intestines remaining attached to the ileum are stained and disposed of as SRM (Category 1 Animal By-Product).
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Unstained Specified Risk Material

When staining of SRM is not necessary

SRM may only be removed from approved establishments without prior staining in the following circumstances:

- whole bodies of dead cattle, sheep or goats
 - consignments for instructional, diagnostic or research purposes
 - consignment to approved premises for the manufacture of products not connected with food.
-

Checks on FBOs records

The AO must check the FBOs records of despatch of unstained SRM to verify to that it is going to permitted destinations only.

Procedure

ABP 7/1 (Despatch of SRM for Veterinary or Research Purposes) is used to monitor the despatch of unstained SRM for research. The applicant must complete it in advance of unstained SRM being removed from the establishment and receive Veterinary Manager (VM) agreement. The OV must complete section 3 every time SRM is despatched. The outline procedure is as follows:

- the applicant completes section 1 of ABP 7/1 and sends the form to the VM at MHS HQ, Veterinary and Technical Directorate (VetTec)
Reference: See Chapter 9 "Forms".
 - the VM then reviews and signs the form
 - VetTec then sends copies of the form to the applicant, the Animal Health Officer, the OV and the Local Authority
 - the OV then completes section 3 when the unstained SRM is despatched and sends a copy to VetTec.
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