Chapter 6

Notifiable Diseases

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1. Introduction

1.1 Purpose

1.1 Purpose

1.1.1 Background

The prompt identification and notification of certain animal diseases allows FSS, Animal and Plant Health Agency (APHA) and Scottish Government (SG) to take action to prevent the spread of the disease. This chapter covers day to day procedures in notifiable disease monitoring and surveillance.

When an outbreak is declared, emergency instructions will be issued at the time, since different rules may apply depending on the specifics of the case.

1.1.2 Legislation

Powers to control notifiable diseases are derived from the Animal Health Act 1981 (as amended) and specific Orders made under the Act.

1.1.3 Enforcement

The legislative powers are usually enacted by APHA staff or Local Authority (LA) inspectors. Some FSS staff are authorised under the legislation to undertake certain functions. The legislation is enforced by Local Authorities (LAs).

1.1.4 Introduction to FSS duties

FSS staff have a duty to notify the Scottish Ministers or Divisional Veterinary Manager (DVM) of any suspect case of a notifiable disease that they may encounter during the course of their work. In practice, they will deal with the Veterinary Inspector (VI) from APHA.

The decision whether to take further action or not rests with the VI.

FSS also participates in monitoring through both passive and active surveillance of certain notifiable diseases.

Note: ‘Suspect animal’ includes any animal in which disease is suspected either due to clinical or pathological findings or because of a known epidemiological connection.

2. Action on Suspicion of Notifiable Diseases

2.1 Current notifiable diseases

2.2 FSS responsibilities and actions

2.3 Responsibilities of APHA

2.4 Other responsibilities

2.5 Detained meat storage

2.6 Cleansing and disinfection (C&D)

2.1 Current notifiable diseases

2.1 Reporting notifiable diseases

Any person who suspects a notifiable disease has a duty to report it to the Vet (APHA). A table of notifiable diseases and further guidance can be found on Scottish Government website:

Animal diseases: notifiable, reportable and non-notifiable diseases - gov.scot (www.gov.scot)

Notifiable diseases can be:

• endemic – already present in the UK (for example, bovine TB)

• exotic – not normally present in the UK (for example, FMD, ASF, BT, AI).

For further information regarding UK contingency plans for Exotic Notifiable Disease please refer to: Chapter 2. Structures for control and co-ordination - Exotic animal disease contingency framework plan: August 2022 - gov.scot (www.gov.scot)

Clinical signs of notifiable diseases

Click on the links below to access more information about the following notifiable diseases:

Avian Influenza in poultry

Foot and mouth Disease in ruminants

African Swine Fever in pigs

Bluetongue in cattle and sheep

Newcastle Disease in chickens

Warble Fly

2.2 FSS responsibilities and actions

2.2.1 When to report

The OV must immediately report suspicious signs of notifiable disease in:

- live animals or birds
- carcases and offal

If the OV is not present, the OA must consult an OV before reporting a notifiable disease, provided that such consultation will not cause undue delay. Reports of notifiable disease should be made to FSS Operations, the VI at APHA Field Services and the FSS Veterinary Advisor. Your local contact for APHA can be found at the following link: Office access and opening times - Animal and Plant Health Agency - GOV.UK (www.gov.uk). The OV (or OA where applicable) MUST keep a written record in the daybook of the time when the suspect cases were reported and the name of the person making the report. The OV (OA where applicable) must follow precisely the instructions given by the APHA Vet. The period between when the OV (or OA where applicable) reports suspicion of disease and arrival of the APHA VI into the establishment may be critical in controlling the spread of disease.

2.2.2 Reporting details

Provide the following information to the APHA VI:

- the plant name, address and contact telephone number;
- the animal's breed, age, sex and identification mark(s) (Ear tag number or slap mark);
- details of any clinical signs and history in the suspect cases and any in-contact animal from the same establishment;
- details of the lesions found during meat inspection;
- the name, address and the holding (CPH) number of the premises where the suspect animal or carcase(s) came from; this will allow APHA to arrange an investigation at this premises if needed;
- any other information requested by APHA within the FSS staff's knowledge.

Note: The OV should inform the FSS area Veterinary Advisor when a suspicion of Notifiable Disease is reported to APHA.

2.2.3 Instructions from APHA

Instructions given by the APHA VI Vet could include:

- isolating the animal(s), or part of an animal(s) or a batch of animals until an investigation has been completed;
- restricting movement of all animals, birds, products, vehicles or people into or out of the slaughterhouse until an investigation has been completed;
- stopping slaughter.

Note: the OV will need to isolate the animals before the phone call is made, or at least ask that the batch is held and not put into the race, or is removed from the race/stunning box until the conversation has been completed with APHA. This may take some time as it may require the APHA VI to call their Veterinary Advisor for advice. The OV cannot wait until the APHA VI has had time to respond. Therefore, they need to make sure to give instructions to hold animals and separate them before that phone call is made.

2.2.4 Record keeping

The OV must keep a contemporaneous record in the daybook of all instructions received from the APHA VI and confirm that they have been followed.

When an exotic notifiable disease is suspected, and reported to APHA, the OV must consult their VA and assess if notification to the FSS Incident Team would be required (i.e. if there is a risk for food/feed safety).

2.2.5 Cleansing and disinfection

No disinfectant should be used on or near animals, birds or carcases suspected of disease, while waiting for the APHA VI to attend, as this may reduce the sensitivity of testing.

2.2.6 Consultation cases

Providing that the OV is in the establishment and remains there, APHA may decide to deal with the investigation as a ‘consultation case’.

A consultation case takes place between two or more veterinary surgeons when one of them considers that a notifiable disease may be included in the differential diagnosis for a specific case, but the probability of it being that disease is very low.

The OV should discuss the report of disease with the APHA VI on arrival at the establishment.

The APHA VI will place restrictions only if the result of the consultation is that a notifiable disease is suspected. However, is worth noting that the consultation case will require animals and parts of animals to be held aside until a decision is made and before the APHA VI arrives.

It is APHA's decision whether to deal with an investigation as a 'consultation case' or 'reporting case'. However, it needs input from the FSS OV regarding the assessment of risk and likelihood. If after a discussion with APHA VI, the FSS OV still believes that there is high suspicion it would be considered as a 'report case'.

2.2.7 Report case

In other cases, APHA may call the case a 'report case' and place specific restrictions on the establishment pending veterinary enquiry. These restrictions may affect the movement of animals, products, people and vehicles from the establishment.

SG might also be notified by APHA. If ND cannot be ruled out on clinical signs and samples are taken, SG will notify Scottish Ministers as well.

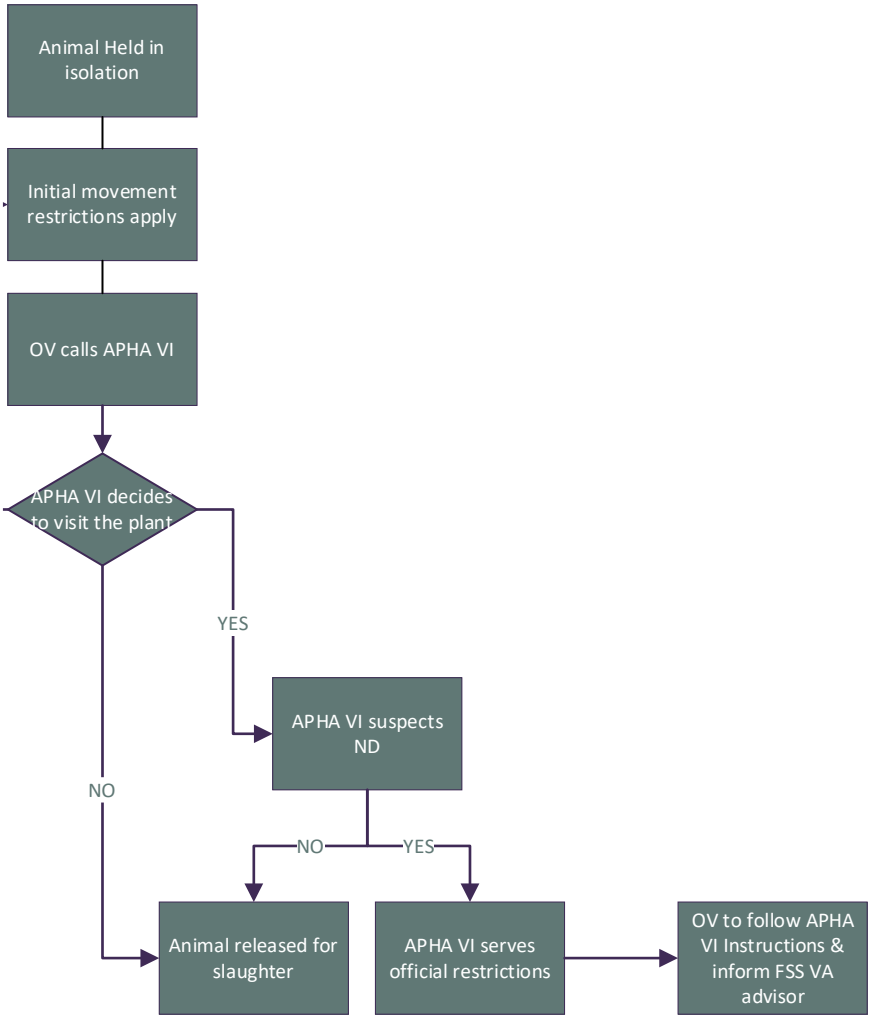
2.2.8 Legislative responsibilities

The OV remains responsible for:

- ensuring that all public health legislation is complied with while the establishment is under APHA restrictions;
- monitoring food hygiene and animal welfare;
- following APHA instructions and informing them immediately if any of them cannot be implemented.

2.2.9 Procedure for suspect notifiable disease

The chart below outlines the procedure to follow if the OV suspects a notifiable disease.



Note: * If the APHA VI suspects a Notifiable Disease, the premises would be treated as contaminated, until proven otherwise. The FBO should:

- not bring more susceptible animals onto the premises
- not slaughter live suspect animals (so the APHA VI can sample them)
- isolate suspect/potentially contaminated carcases.

2.3 Responsibilities of APHA

2.3.1 Main duties

APHA has responsibility for:

- applying animal health disease control measures to minimise the spread of notifiable disease;
- fully investigating the OV's (or FSS OA's) report.

2.3.2 APHA investigation

An APHA VI may visit the slaughterhouse. If it is a report case, they will serve restrictions immediately on arrival and before starting the investigation. Other APHA Vets may be sent to the farm of origin to undertake a simultaneous veterinary enquiry.

Once at the establishment, the VI will discuss the report with the OV/AO/Food Business Operator (FBO) and examine the suspect animals/carcases/offal. The VI will also consult with other APHA staff and the VI who may have gone to the farm of origin to gain a full clinical picture, and they will then contact APHA Veterinary Exotic Notifiable Diseases Unit (VENDU).

2.3.3 After investigations

If the presence of notifiable disease cannot be ruled out, the APHA VI will:

- serve a restriction notice closing establishments (or parts), or
- amend any restriction notice that has already been served, and / or
- collect whatever samples are necessary for diagnostic purposes.

If the initial investigation began as a consultation case, it will now become a report case.

2.3.4 Restrictions

APHA will regularly review the extent of the restrictions on the establishment, which will be subject to some conditions such as thorough C&D.

2.4 Other responsibilities

2.4.1 Compliance

All persons at the establishment, including FSS staff, must comply with any restrictions in any notices served on the establishment. It is not necessarily the case that the whole plant will need to be restricted. Guidance will be provided by the APHA vets but would depend upon people and animal movements having been restricted as per instructions at the point of notification.

2.4.2 Local authority

The LA is responsible for taking enforcement action under disease control legislation.

2.5 Detained meat storage

2.5.1 Storage sites

Any meat detained at the slaughterhouse will be kept under control of the OV and APHA, and locked in a 'storage site'. Access to this storage site will be controlled by the OV or APHA VI. The FBO is responsible for the way the meat is stored, in compliance with Regulation (EC) 852/2004 and 853/2004.

Carcases from suspect animals must be separated from other carcases. Carcases from animals from the same consignment as the suspect animals must be separated from other carcases as well.

Offal and other animal by-products from all suspect animals are detained along with any other by-products they have come into contact within the slaughterhouse, e.g. gut room, hide room, feather store, blood tank etc.

The storage site is likely to be kept under restrictions until the final results are known.

The FBO may discuss procedures for preparing the meat for storage with APHA and FSS.

2.5.2 Test results

Negative results take longer to reach completion and restrictions remain in place until confirmation of a negative result is received. APHA will provide information on how long it could take before the results are known.

2.5.3 Public health

FSS are fully responsible for ensuring that public health legislation is complied with at all times when the meat is at the establishment.

Meat is to be declared unfit for human consumption if it derives from animals affected by animal diseases for which animal health rules are laid down in Union legislation listed in Annex I to Directive 2002/99/EC, except if it is obtained in conformity with the specific requirements provided for in that Directive. This exemption does not apply if otherwise provided for in the requirements on the official controls of tuberculosis and brucellosis provided for in Articles 33 and 34 of Regulation (EC) 2019/627. The diseases listed in the Directive are: Classical and African Swine Fever, Foot and Mouth Disease, Avian Influenza, Newcastle Disease, Rinderpest, Sheep and Goat Plague (Peste des Petits Ruminants) and Swine Vesicular Disease.

Reference: Regulation (EC) 2019/627, Article 45 (e)

Meat shall also be declared unfit for human consumption if in the opinion of the OV, after examination of all the relevant information, it may constitute a risk to human or

animal health or is for any other reason not suitable for human consumption. Reference: Regulation (EC) 2019/627 Article 45(t)

See also chapter 2.4 on ‘Post-mortem inspection’.

2.5.4 Clearance

Meat detained on suspicion of disease will usually be released once all the tests’ results are received back as negative. The OV must seek clearance from APHA and keep a written record before opening any sealed container.

2.6 Cleansing and disinfection

2.6.1 Requirement to C & D

When certain diseases cannot be ruled out, APHA may require the FBO to cleanse and disinfect (C&D) specified parts of their establishment. FBOs are responsible for doing this at their own expense. APHA may request FSS assistance in supervising the cleansing and disinfection of the establishment.

When carrying out C&D activities in the event of an outbreak (or during the investigation of a suspected outbreak) of a Notifiable Disease, FBOs are requested to use the relevant Government approved disinfectant as listed on the Defra website at the manufacturers recommended dilution rate.

These C&D activities need to be documented by protocols where the FBO should describe how to C&D the relevant equipment, utensils and vehicles. This should at least be in line with the manufacturers’ instructions for the chemical in use.

After C&D, the APHA VI will be able to confirm when the operations can re-commence – in some cases the establishment may have to be rested for a specified period. The aim will always be to allow resumption of operations as soon as possible.

3. Anthrax

3.1 Introduction

3.2 Investigation and diagnostic sampling

3.1 Introduction

3.1.1 Background

The OV (or OA where applicable) may consider the possibility of anthrax in the course of normal duties. In reaching a decision, the OV must take into account factors such as history or clinical signs.

Official Information about Anthrax can be found online.

3.1.2 Anthrax: clinical and pathological signs

Anthrax should be suspected:

- if the cause of death is unexplained, particularly sudden death, in apparently healthy animals;
- when potential signs of anthrax are observed on the dead animal (for example, dark, tarry uncoagulated bloody discharges from natural orifices, rapid bloating of the carcass, incomplete rigor mortis);
- if indications in the Food Chain Information (FCI) or any other information indicate higher risk of the farm/area of origin;
- if clinical signs at ante-mortem inspection indicate that the disease might be present, for example, high temperature, bloody diarrhoea or a discharge of dark tarry uncoagulated blood from the nose, mouth and anus;
- if post-mortem evidence suggests that the animal might have been suffering from anthrax (for example, swollen spleen with bloodstained fluid in all body cavities).

Note: If the OV is suspicious of anthrax, the carcass should not be opened as this can result in the formation of highly resistant anthrax spores.

3.1.3 Suspect live animals

Suspect animals, parts of animals and animals in direct contact must be detained, isolated and reported to the APHA VI immediately.

The APHA VI will place restrictions upon the animal, but if still alive, it will not be slaughtered. It may be treated in situ, but for as long as the animal shows signs of disease the restrictions will remain in place. No animals or carcasses are to be removed from the premises.

3.1.4 Suspect carcases

In some cases, suspicion of disease will not be raised until the carcase has been opened. The whole of the suspect carcase, offal, hide and blood must be detained (including any parts already removed) and people kept away from the carcase, its parts and the area where the carcase is held.

All other carcases and offal at the establishment should be detained pending completion of enquiries. No other animals should be allowed to enter the slaughter-hall until the results of the enquiry are known.

Holding pens should not be cleaned, and no other product or waste is allowed to leave the site until authorised by APHA staff.

No carcases are to be removed from the premises.

3.1.5 Details to report

The OV (or OA where applicable) must report suspect cases to APHA immediately, giving details as instructed in section 2.2.2 of this chapter.

3.1.6 APHA action

The APHA VI will inform if restrictions shall apply and will also arrange for an immediate enquiry to be carried out. OVs authorised through the Official Controls Qualification (Veterinary) – Statutory Surveillance (OCQ(V)-SS) can carry out an enquiry into anthrax. If the OV is a designated OV with an OCQ(V)-SS, APHA may instruct the OV to undertake the enquiry providing suitable facilities are available for testing.

OVs cannot carry out enquiries in anticipation of authorisation from APHA.

3.1.7 Cleansing and disinfection

Holding pens should not be cleaned and no other product or waste is allowed to leave the site until authorised by APHA staff.

3.2 Investigation and diagnostic sampling

3.2.1 Anthrax bacilli suspected: initial investigation

Under no circumstances must the OV attempt to collect and examine samples for anthrax without having informed the APHA VI and being authorised to do so.

3.2.2 BSE testing

If a bovine animal is found dead in the lairage or dead on arrival and the OV suspects anthrax, then the animal must be tested for anthrax before being despatched for BSE testing (where BSE testing is appropriate). This is sometimes conducted by the fallen stock company.

3.2.3 Suspect anthrax out of hours

If it is necessary for an examination for suspected anthrax to be carried out at a slaughterhouse outside normal OV hours of attendance, the APHA VI will request an APHA VI or authorised veterinarian designated as OV with an OCQ(V)-SS to attend the establishment to conduct such an examination.

3.2.4 Anthrax suspected

If disease is suspected, the attending vet with an OCQ(V)-SS will report this to the APHA VI who will make arrangements for the submission of further samples for testing.

An example of a report of suspected Existence of Disease for Anthrax that the VI would issue can be found at Annex 2.

3.2.5 Detention of suspect carcases

Where anthrax is suspected, the carcase should be detained until the results are received. The FBO may dispose of the carcase as Cat 2 (or 1 if contains SRM) ABP only if suspicion of anthrax has been ruled out.

For an example of a notice declaring an infected place (AN24), please refer to Annex 1.

3.2.6 Anthrax ruled out

Where the APHA VI is satisfied that anthrax does not exist in the live animal, they will notify the APHA Local Office and FBO by completing form AN2 (Certificate – Non-existence of Disease in a Carcase).

Reference: See Annex 3 on ‘AN2 – Certificate’ for a sample.

If the animal has died and requires TSE testing, the procedure for testing fallen stock must be followed once the presence of anthrax has been ruled out. If an owner

requests an investigation into the cause of death, this is a private matter which must be arranged between the owner and veterinary surgeon.

4. Bovine Brucellosis

4.1 Overview

4.2 Slaughter and sampling

4.1 Overview

4.1.1 Introduction

The UK achieved official brucellosis free status in 1985.

Official information about Brucellosis in the UK can be found online.

There are three measures in place to prevent the disease being re-introduced and subsequently spreading:

- post import testing of imported cattle;
- compulsory reporting of all bovine abortions and premature calving with investigation of all outside a specified low risk category;
- quarterly testing of bulk milk samples from all dairy herds, including those of producer retailers.

4.1.2 Responsibilities

APHA will inform FSS about proposed slaughter of reactors. Collection and packaging of samples from brucellosis cases consigned for slaughter is the responsibility of FSS, and will include:

- reactors and inconclusive reactors to the brucellosis tests, and
- contacts with confirmed cases.

The despatch of the samples to the laboratory is the responsibility of APHA who will collect the samples from the slaughterhouse.

Note: The OV must report any abortions and premature births to APHA and follow any additional instructions. All FSS staff should be aware of the potential danger of infection primarily from the uterus and udder.

4.1.3 Movement licences

Cattle from restricted premises will be consigned directly to slaughterhouses accompanied by a BS112 (Licence authorising the movement of cattle on to or off premises under restriction or authorising the movement of specified cattle which are

under restriction awaiting the completion of tests for brucellosis). APHA will send a copy of the BS112 licence to the OV as advanced warning.

Reference: See Annex 4 on 'BS112 – Licence for a sample of the form.

In addition, where the owner has opted to slaughter the animal at their own expense (private slaughter) the animal will be accompanied by form BS15B. These are handed to the FBO on arrival at the slaughterhouse.

Reference: See Annex 5 on 'BS15B – Notice' for a sample of the form.

Please note that the forms are often updated by APHA, therefore the OV might receive a slightly modified version of the ones provided in the above annexes.

4.2 Slaughter and sampling

4.2.1 Slaughter procedure

The OV/OA must collect the following samples from the carcase:

All animals
Paired lymph nodes • retropharyngeal (supra pharyngeal); • supramammary (female) or superficial inguinal (male); • internal iliac.
In addition, for bulls
• paired deep inguinal lymph nodes; • paired testicles, epididymis and seminal vesicles.

4.2.2 Sampling packaging

Samples must be taken as hygienically as possible, using sterilised knives, and placed in a separate labelled polythene bag for each pair of nodes or organs and then sealed. All specimens from each animal sampled should then be placed together in a further single outer polythene bag and this bag then sealed and labelled. Polythene bags should be self-sealable or tightly knotted and of sufficient strength to prevent leakage and potential cross-contamination.

4.2.3 Labelling

All sample bags should be labelled with the ear tag number plus the details of any reactor tag.

4.2.4 Storage

All samples should be placed in a refrigerator (not freezer) until collected by APHA staff. FSS staff should inform APHA when the samples are ready for collection, also copy ScotlandEndemics@apha.gov.uk when notifying.

Unless the OVs have discussed an alternative route of communication (for example with the APHA case vet) then please phone your local APHA office and ask to speak with the duty vet.

5. Enzootic Bovine Leukosis (EBL)

5.1 Introduction

5.2 Investigation of tumours in cattle carcases or offal

5.3 Sampling of tumour carcases

5.4 Packaging and despatch

5.1 Introduction

5.1.1 Enzootic Bovine Leukosis (EBL)

The OV must notify the APHA VI of:

- any live animal affected with, or suspected of being affected with, EBL, and;
- any carcase or offal showing certain tumorous changes.

Detain any suspect live animal or any suspect carcase with its offal until the APHA VI issues instructions. Retain the passport and Food Chain Information (FCI) until any investigations have been carried out.

5.1.2 Signs to report

The OV should report suspect cases in live animals or carcases when there is evidence of tumours (other than papillomata or haemangiomata) or of swollen lymph nodes. If suspicion of disease, isolate the animal or the carcase and the batch it comes from and then phone the local APHA office. Tumours in young animals normally arise from sporadic leukosis and not EBL; the latter being associated with tumours in animals aged three years or more.

Note: Swollen lymph glands identified in a live animal suffering from EBL will be painless.

Official Information about EBL in UK can be found here.

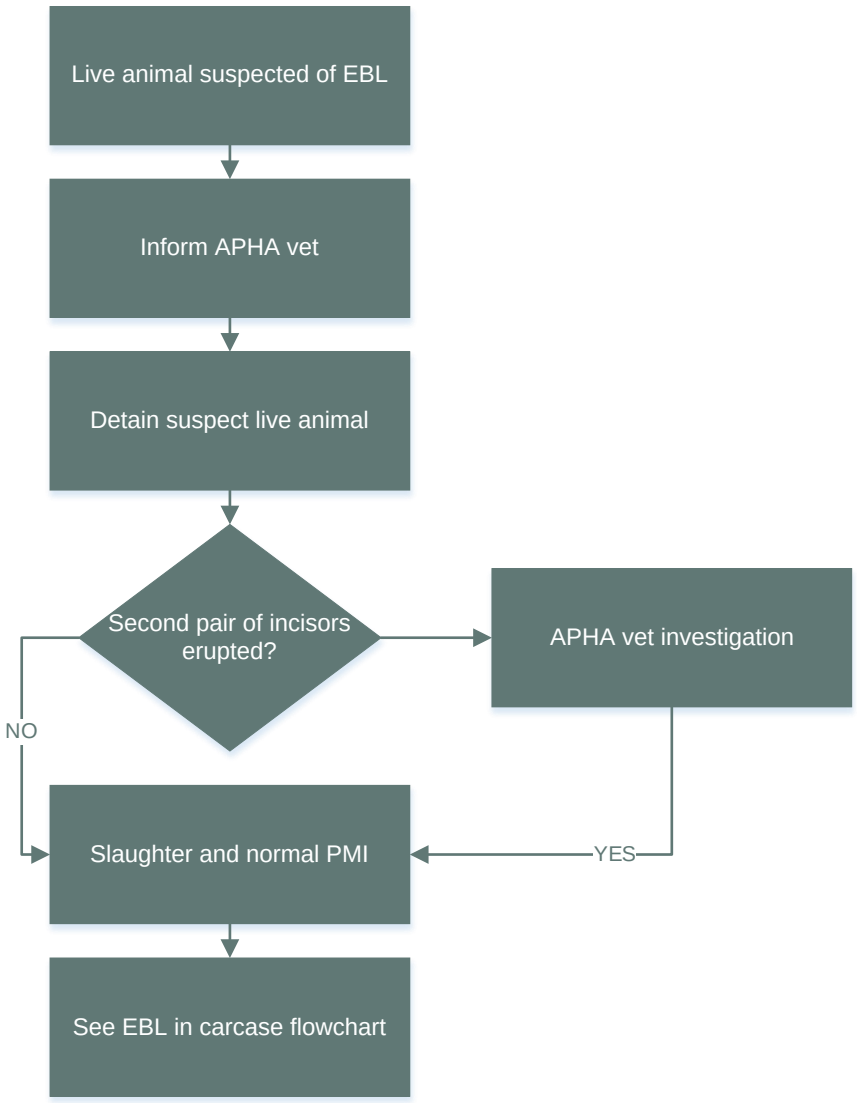
5.1.3 Documentation

Animals from establishments under movement restrictions because of EBL may be moved to slaughter under licence from APHA (Form EBL9).

Reference: See Annex 6 on 'EBL9 – Licence' for a sample of the form.

Other animals licensed for slaughter from restricted establishments will not usually need to be inspected by an APHA VI and the FSS should subject such carcases and their offal to normal meat inspection procedures, paying particular attention for evidence of tumorous change.

Enzootic Bovine Leukosis (EBL): investigation of suspect live animal



5.1.4 Dentition check

Whenever suspect disease is reported in a live animal, the APHA VI will ask whether either of the animal's second pair of permanent incisors has erupted – that is, whether there are more than two ‘broad teeth’. If the answer is no, then in most cases no further action will be required other than the provision of outline data (APHA is required to keep a record of such cases for reporting to the EU), and the animal can be

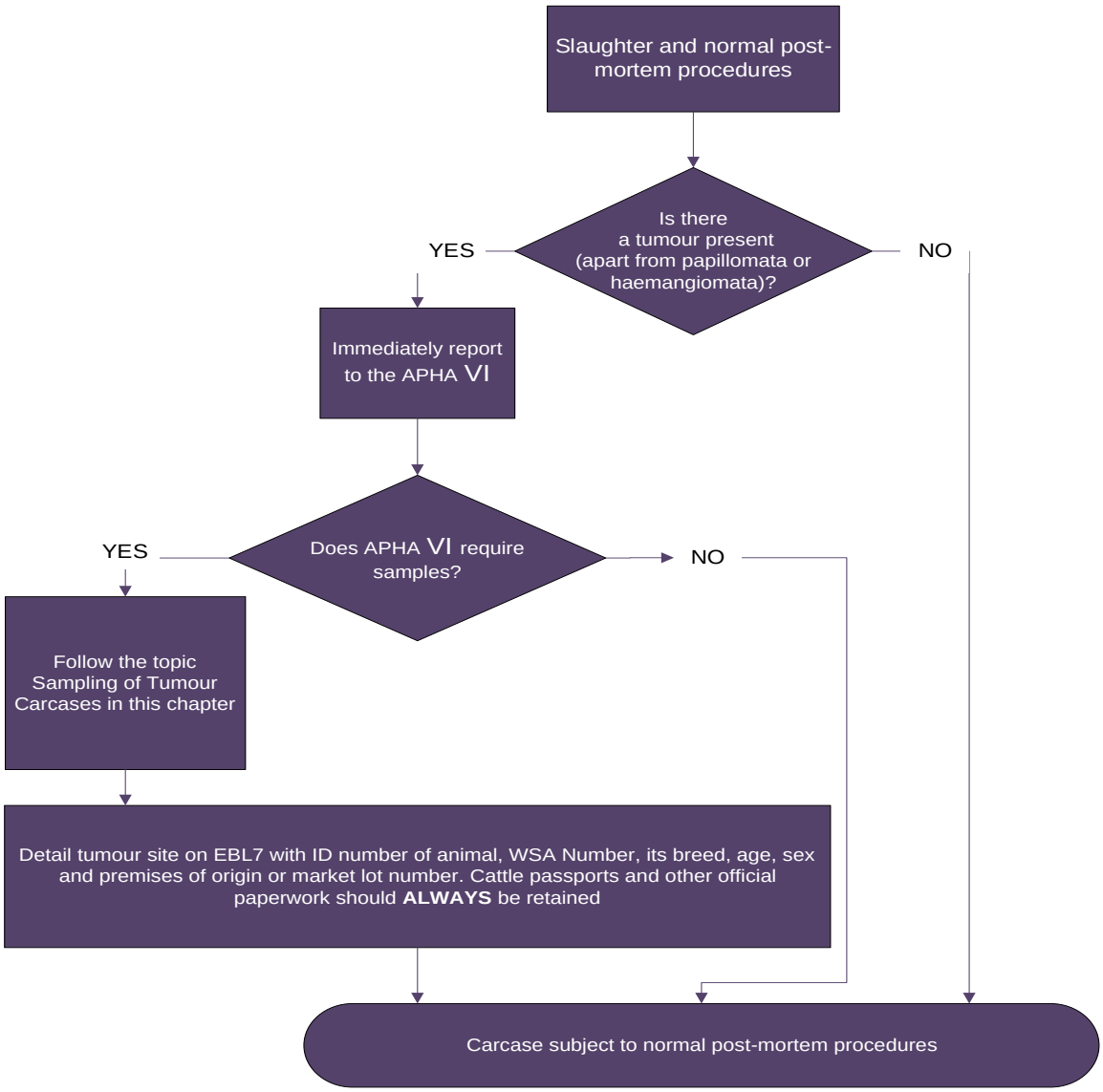
slaughtered and subjected to normal post-mortem inspection procedures and judgement.

If either of the second pair of permanent incisors has erupted (there are three or more 'broad teeth'), then APHA will carry out an investigation, and the OV must ensure the animal is detained in the lairage pending this investigation.

5.1.5 After the investigation

Following the completion of the APHA VI investigation, the animal may be slaughtered and subjected to normal post-mortem inspection procedures and judgement. Appropriate samples of tumorous swollen lymph nodes should be taken from the carcase or offal at the request of the APHA VI, where EBL has not been ruled out. The carcase and offal need not be detained pending the results of the tests on any collected samples.

Enzootic Bovine Leukosis (EBL): process for sampling at post-mortem inspection



5.2 Investigation of tumours in cattle carcases or offal

5.2.1 Tumours in cattle

All cattle tumours seen at post-mortem inspection are notifiable, with the exception of papillomata or haemangiomata and should therefore be reported **IMMEDIATELY** to the APHA VI, who will note the details of all cases and instruct when sampling by the FSS is to be carried out.

A large proportion of tumour notifications concern animals aged less than two years. Although collection of tumour specimens from cattle with fewer than three permanent incisors is not normally required, APHA retains discretion to require sampling or to instruct a VI to carry out an investigation.

5.2.2 Sampling of tumours

When asked to do so, the FSS is responsible for collecting the appropriate samples from carcases and/or offal and retaining these along with details of the tumour site and the FCI. Cattle passports and FCI should always be retained by the FSS to assist APHA in the process of tracing.

The FSS will arrange for collection of the samples with Topspeed, please refer to section 5.4.2, and complete all relevant details on Annex 7 - the EBL7 submission form. The FSS will prepare, pack and send the samples along with the completed submission forms to the laboratory. For more information regarding the packaging material please refer to section 5.4.3

FSS staff must positively differentiate between lesions which are tumorous (EBL) and those which are tuberculosis (TB) as different sampling and diagnostic testing is required.

When FSS sample a tumorous carcase and/or its offal, the following 2 sets of samples should be collected:

- tissue samples for Polymerase Chain Reaction Test (PCRT);
- tissue samples for histology.

5.3 Sampling of tumour carcases

5.3.1 Samples of PCRT

A PCRT has been developed to detect the presence of Bovine Leukosis Virus (BLV – the agent responsible for EBL infection) in cattle tissues and lymph nodes. The PCRT requires fresh refrigerated samples.

5.3.2 Samples of histology

Samples for histological analysis are also needed as a backup should the fresh samples prove unsatisfactory for PCRT. These samples should consist of a specimen from each of the grossly affected organs and representative enlarged lymph nodes.

5.3.3 Collection of samples

Follow the steps in the tables below to collect the samples.

Note: Remove samples within 24 hours of slaughter.

Sample for PCR test:

Step	Action
1	Use sterilised knives and gloves for each carcase
2	Take tissue sample from undisturbed part of tumour and from one accessible non-lesion lymph node of 5-10g
3	Transfer sample to individual sterile 60 ml pot
4	Write ‘PCR Test’, ear tag number, WSA number (provided by APHA) and organ tissue sampled on label and stick on pot
5	Store chilled until dispatch by courier

Sample for histology:

Step	Action
1	Take sample from affected organs and representative enlarged lymph nodes
2	Cut specimens about 1cm thick; a slice of organ should show both normal and diseased tissue
3	Lymph nodes should be transverse across the long axis of the node and should include the capsule
4	Transfer sample to individual sterile 60ml pot
5	Write ‘Histo Test’, ear tag number, case reference number and organ tissue sampled on label and stick on pot
6	Store chilled until dispatch by courier

5.3.4 Post-mortem inspection

Once the required samples have been removed, the carcase may be subjected to normal post-mortem inspection procedures and judgement – it needs not to be detained pending the results of the tests for EBL.

5.3.5 Recording of post-mortem findings

Details of the tumour site should be recorded on the form EBL7, together with all available identification information. Complete only those parts of the form for which you have information; the remainder will be completed by APHA staff.

Reference: See Annex 7 on 'EBL7 – Submission form' for a sample of the form.

5.4 Packaging and despatch

5.4.1 Packing

1. All samples must be submitted in a 60 ml pot.
   - Outside of pot must be kept clean.
   - Remember to tighten lids. Give an extra turn before packing.
   - Avoid cross threading the lids as they will cause the pots to leak.
2. Place each individual pot in a plastic bag which is knotted tightly. Trim off excess bag.
3. Place all bagged pots into a biobox/biobottle along with the absorbent pad/ material and seal the box. The process for sending forms is as follows:
   - Signed original EBL7 forms must be placed in an envelope, this envelope should be marked 'Originals' and placed between the outer box and the biobox/ biobottle. APHA laboratory staff will forward the original forms internally to the relevant APHA regional office.
   - Copies of the EBL7 forms should be placed in a ziplock bag and taped to the outside of the biobottle/placed in biobox. Copies of these forms should be emailed to the relevant APHA office (if filled in by hand a clear photograph or scan of the form is suitable). The OV should retain a further copy in the plant files for future reference (retention period 12 months).
4. Place biobottle into the outer box.
5. Attach address label.
6. Attach security seal.
7. Store the package in the chiller until the time of collection. Ideally place in a waterproof bag/container to avoid contamination.

5.4.2 Despatch

The current courier for the new sampling process is Topspeed Couriers. The courier process is as follows:

As soon as you receive the sampling request information from APHA, book the courier online through https://www.topspeedcouriers.co.uk/ or email ebl@topspeedcouriers.co.uk with the following information:

- establishment name and approval number
- slaughter date of the samples (this information will allow Topspeed Couriers to plan the collections to include multiple pickups where possible)
- destination laboratory:

  BLV – PCR Virology Department
  APHA Weybridge
  New Haw
  Addlestone
  Surrey
  KT15 3NB
- name and telephone number for the FSS contact at the plant

On detection of a tumour that needs samples submitting, notify the courier that samples are required to be collected. The courier will organise a collection which meets the two working days delivery requirement (for example, a tumour found on Monday, samples are required to be with APHA by 5 pm on Wednesday. However, collection could take place on Monday, Tuesday or Wednesday, as the couriers are required to consolidate their delivery runs to be cost effective).

5.4.3 Ordering consumables

The OV at each abattoir is responsible for ensuring that there are sufficient supplies of consumables for packing samples. It is important that only the specified packaging materials (such as pots and labels) are used as failure to do so may result in the sample being un-assayable at the lab. The consumables must be ordered directly from APHA Weybridge by using the following procedure:

- Fill in the requisition form (Annex 8a/b) specifying the type of materials required and the number of units.
- Make sure that you complete all the boxes (establishment name, address, FSS contact name and telephone number, and any others).
- The requisition form should be emailed to stock.orders@apha.gov.uk or faxed to APHA Weybridge: 01932 357497.
- APHA will endeavour to complete delivery of consumables orders within 7 working days of receipt. If you have any queries regarding an order that you have placed, you should email stock.orders@apha.gov.uk .

6. Transmissible spongiform encephalopathies (TSE)

6.1 TSE overview

6.2 Reporting suspicions

6.3 At visit: APHA VI does not suspect TSE

6.4 At visit: APHA VI suspects TSE

6.1 TSE overview

6.1.1 Introduction

This section outlines the actions to be taken when a TSE is suspected in an animal.

Instructions regarding sampling of animals when TSEs are not suspected can be found in the chapter 2.6 on ‘Transmissible Spongiform Encephalopathy’.

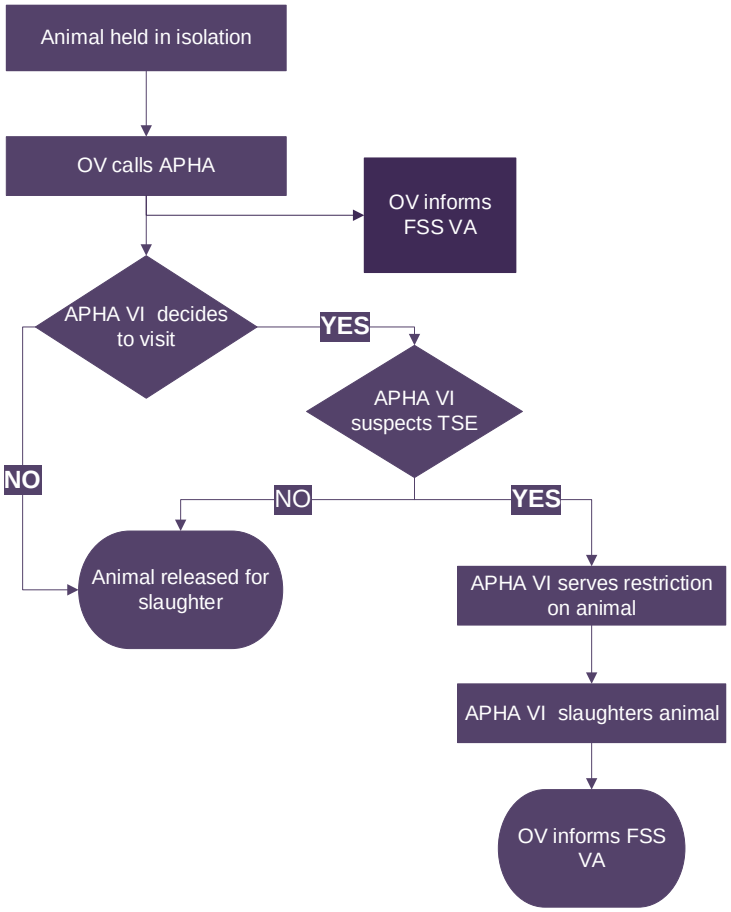
Information about the clinical signs of the most relevant TSEs:

- BSE in cattle
- Scrapie in sheep
- TSE in goats

TSEs are notifiable diseases and their suspicion must be reported immediately to APHA.

For all reported cases, the OV should ensure accurate details are recorded in the daybook.

6.1.2 Procedure



6.2 Reporting suspicions

6.2.1 Suspect live animals

If FSS or plant staff suspects that live cattle, sheep, goats or deer are affected with BSE, Scrapie or other TSE, they must take action as detailed in this topic.

Caution: The OV, especially in the case of BSE, should be aware that an affected animal may, because of behavioural changes associated with the disease, be likely to cause injury to itself, other livestock or staff.

Step	Action
1	Suspect animal is held in isolation in the lairage. On no account should a suspect animal be allowed to enter the main slaughter-hall unless and until the OV is satisfied that it should no longer be considered a suspect.
2	The OV telephones the APHA VI to notify the suspicion of a TSE. There are two possible outcomes to the telephone conversation:

	1. The APHA VI agrees with the OV's suspicions and agrees to visit the slaughterhouse 2. The APHA VI can negate the disease and decides not to visit the slaughterhouse. If 1 occurs, then the OV should follow Option 1 below. If 2 occurs, the OV should follow APHA VI advice.

Option 1: The table below details the action to take if the APHA VI agrees with the OV suspicions.

Step	Action
1	The APHA VI makes arrangements for a visit to the slaughterhouse as soon as possible to carry out an investigation. APHA may request the following details: • clinical description of the animal • ear tag identification of the animal • date of birth of the animal • details of origin
2	The OV obtains FCI before the APHA VI arrives
3	The FBO informs the owner of the animal
4	The APHA VI examines the animal and determines whether it is clinically positive, negative or inconclusive for TSE

6.3 At visit: APHA VI does not suspect TSE

If the APHA VI considers that the suspect is not affected by BSE, Scrapie or other TSE, the animal may be submitted for slaughter for human consumption.

Note: Certain bovine animals which are not considered to be BSE suspects require TSE testing.

6.4 At visit: APHA VI suspects TSE

6.4.1 Restrictions on animals

If the APHA VI considers the case to be clinically positive, they will serve restrictions on the animal. Once restricted, the FBO must not allow the animal to be slaughtered.

6.4.2 Slaughter and destruction

The APHA VI will euthanise the animal by injection of barbiturate and arrange for the dead animal to be transported either to an incineration plant or a veterinary laboratory where the head will be sampled.

In the case of sheep or goats, if the suspect animal is considered fit to travel, the APHA VI may make arrangements to transport it live under licence to the nearest available veterinary laboratory.

6.4.3 Restrictions on premises

No restrictions will be imposed on the slaughterhouse premises in the case of a TSE suspect, although the APHA VI may give advice on cleaning and disinfection in clinically positive cases.

6.4.4 Informing FSS

The OV should inform the Vet Advisor that a TSE suspect animal has been killed at or removed from an approved establishment by APHA staff, as per general instructions in Section 2.2.2 of this chapter. Depending on the case FSS Vet Advisor will advise whether reporting to FSS Incidents is needed.

7. Tuberculosis (TB)

7.1 Introduction

7.2 Slaughter

7.3 Reactor animals

7.4 Reactor animals: notifications and responsibilities

7.5 Reactor animals: inspection requirements

7.6 Reactor animals: post-mortem decision

7.7 Reactor animals: sampling

7.8 Reactor tag sampling

7.9 The slaughterhouse case

7.10 The slaughterhouse case: additional detailed inspection

7.11 The slaughterhouse case: sampling

7.12 Packing and despatch of samples

7.1 Introduction

7.1.1 Introduction

Bovine tuberculosis (bTB) is an infectious and contagious disease of cattle and one of the biggest challenges for the cattle farming industry. It is caused by the bacterium *Mycobacterium bovis* (*M. bovis*), which can also infect and cause TB in many other mammals.

APHA is responsible for the control of TB in farms. The FSS, through a service level agreement (SLA), deals with sampling of tuberculin tested positive or inconclusive animals at APHA's request and suspect TB lesions identified at slaughterhouses at post-mortem examination.

If TB is suspected in the carcase of any bovine, deer or farmed mammal, APHA must be notified immediately or within 4 hours maximum of the day of identification.

FSS should notify APHA of TB reactors, inconclusive reactors or direct contact post-mortem results on the same day of slaughter.

Scotland is officially TB free, cattle herds eligible for surveillance testing are tested every four years (some higher risk herds are tested annually).

Regulation: The Tuberculosis (Scotland) Orders (as amended).

The Tuberculosis (Scotland) Order 2023 (legislation.gov.uk)

Note: Health and safety procedures must be adhered to when handling suspect TB lesions. See FSS's health and safety manual here.

Official information about TB in UK can be found here

7.1.2 Definitions

TB reactor plants are red meat slaughterhouses where animals that have undergone a tuberculin test are sent for slaughter. Slaughterhouses access this status through a contract with APHA.

Please note that there are no reactor plants currently in Scotland.

Depending on the result of the tuberculin test, animals can be classed as reactors (R), inconclusive reactors (IR) and direct contacts (DCs). These animals can be compulsorily (R and DC) or Voluntarily (IR) slaughtered.

TB reactors are found as result of regularly testing cattle for TB.

- Primary screening test: Comparative Skin Test
- Used much less frequently: Blood Tests (GIFN; Rapid Ab)

Animals positive to any of these tests are classified as REACTORS.

TB Reactors are animals that failed (had positive results) to the TB skin test and/or any of the validated ancillary tests (Gamma Interferon/IDEXX antibody).

Inconclusive Reactor (IR): Not a reactor (positive test result) but not clear (negative) test result

- Usually re-tested after 60 days. Animals that have an inconclusive result at two consecutive skin tests are considered reactors.
- May be slaughtered privately before re-test or compulsorily removed by APHA as Direct Contact (DC) if risk of infection is considered high.

Restricted premises are those farms where APHA has established cattle movement restrictions.

Direct Contact (DC): In contact with high risk source of TB infection. Considered to be at high risk of infection and slaughtered.

A full list of the movement licences for these animals and the relevant TB forms is given in the Annex list (Annex 9 to 18).

7.1.3 Timesheet coding

All work undertaken by the FSS on behalf of APHA (such as additional inspection requirements, Reactor tag checking, collection and submission of samples and record keeping) must be recorded in OWS.

For further information please visit OWS guidance here.

7.1.4 Scope of the instructions

This section details instructions to FSS staff for dealing with reactors and other cattle from restricted premises, including:

- forms accompanying animals from restricted premises
- inspection of R, IRs and DCs
- death of R/IRs/DCs before reaching the slaughterhouse

- collection and submission of samples
- form completion
- carcases and offal from cattle with suspicious lesions encountered in the course of normal production, also known as ‘The Slaughterhouse Case’
- carcases and offal from other species with suspicious TB lesions

The instructions apply to:

- R and DCs compulsorily slaughtered by APHA
- IRs Voluntarily slaughtered but for which APHA require samples, that is stock accompanied by a TB24 and where advance warning has been given by APHA by means of entering information on TB110 (reactor abattoirs) or via SLA and Contract team (elsewhere), whether alive or dead
- cattle and any other mammals that have been slaughtered in the course of normal production, where lesions consistent with TB are found during post-mortem inspection, also known as slaughterhouse cases.

  They do not apply to other cattle from TB restricted herds.

Note: The OV must be aware that animals with clinical tuberculosis must not be slaughtered for human consumption.

Regulation: Regulation (EC) 2019/627, Article 45(f).

7.2 Slaughter

7.2.1 Where or when to slaughter

Where animals have reacted positively or inconclusively to the tuberculin test, or there are other grounds for suspecting infection, they are to be slaughtered separately, taking precautions to avoid the risk of contamination of other carcases, the slaughter line and staff present in the slaughterhouse.

This applies to:

- cattle that require a TB24 movement licence and have been entered on a TB110 or TB50 by APHA;
- cattle that have a TB24 marked ‘Inconclusive Reactor’;
- deer that require a TB24a movement licence and APHA has advised of intended slaughter by means of a TB55a form;
- sheep or other mammals that were tuberculin tested.

To reduce cross-contamination, the slaughter line must be cleansed and disinfected after processing reactor cattle, IRs and DCs. All such cattle should be slaughtered in one of the following situations:

- last in the day, before full cleaning and disinfection of the slaughter line;
- at any other time provided that the slaughter line is cleaned and disinfected before the slaughter of non-suspect animals resumes;
- in a separate slaughter-hall used for diseased animals or those suspected of being diseased.
- staff should change their PPE after processing these animals

Reference: Regulation (EC) 2019/627, Article 33.

Any species with TB suspect lesions found during the course of post-mortem inspection, particularly where there are no suitable facilities for detailed inspection and sampling on the dressing line, should immediately be placed in the detained area.

Note: Any animal arriving with a TB24 license but not included on a TB110, TB50, specifically instructed by APHA or in the TB24 license DOES NOT need to be slaughtered separately.

7.2.2 Transfer of carcases and offal to the detained facilities

When transferring offal/carcases to a detained area for further inspection or sampling, care must be taken to prevent cross-contamination of other meat/equipment/fittings in the slaughter-hall. In the event of suspected contamination, cleansing and disinfection of the affected area/equipment must take place before production recommences.

Note: Failure by the plant operator to co-operate with this procedure would constitute a contravention of the operator's responsibility to prevent cross-contamination and must be dealt with accordingly.

Regulation: Regulation (EC) 2019/627, Article 33.

7.3 Reactor animals

7.3.1 Types of animals

The table below shows the animals that may be despatched from TB-restricted premises.

Consigned to slaughter	By	Examples
Compulsorily	APHA	Test reactors, DCs

Voluntarily	Herd owner	Fat stock, surplus calves, culled cows, and reactors / IRs which the herd owner chooses to slaughter

7.3.2 Forms

In addition to the official identification documents and the Food Chain Information, animals from TB-restricted establishments may also be accompanied by one or more of the following forms:

- Emergency Slaughter Certificate
- TB24, TB24b, TB24g, TB16b, TB24a, TB55a
- electronic notification by APHA via a TB110 or TB50 sent to the OV by noon the day before the kill

Reference: See Annexes 9 to 18 for sample movement licences and FCI forms.

Note: Any non-compliance observed with the movement license requirements please report it to APHA.

7.3.3 Food chain information

All animals sent for slaughter must be provided with Food chain information (FCI).

Since some TB restricted animals are compulsorily slaughtered, the OV should verify that withdrawal periods have been observed for veterinary medicines and other treatments administered to the animals, this includes substances used for diagnosis purposes such as tuberculin.

Keepers submitting cattle from a farm with movement restrictions due to tuberculosis must declare this as part of the FCI. **APHA requires all cattle moving for slaughter from TB-restricted herds to be marked with an orange stripe along the back.** This is irrespective of test results so applies to animals moving under general licence as well as with movement licences.

Note: Any non-compliance observed with the movement license requirements please report it to APHA.

The OV must be present on site during the processing of animals from a TB restricted farm.

Reference: Regulation (EC) 853/2004, Annex III, Section II and Regulation (EC) 2019/627, Article 10, Paragraph 1

7.3.4 TB110 electronic TB sampling and submission form

APHA will submit electronically a TB110 form providing details of the reactor and DC cattle sent for compulsory slaughter and the sampling code that applies to each herd. This code determines the level of sampling that is required.

Note: These animals will only be sent to selected slaughterhouses contracted by APHA for processing TB suspect cattle. Contact the Operations@fss.scot for the current list of those slaughterhouses and the associated APHA TB diagnostic laboratory. A number of IRs may be voluntarily slaughtered by the owner. The owner can choose any abattoir to slaughter them, but similar arrangements to those above apply. APHA will e-mail a TB50 to the Area VA who will then forward to the OV and other agreed FSS officers by noon the day before the kill date.

Please Note that currently there is no APHA contracted abattoirs in Scotland.

The TB110 must be completed after post-mortem inspection, recording the findings. The process for sending the forms is as follows:

- signed hard copy TB110 must be placed in an envelope, this envelope should be marked ‘Originals’ and placed between the outer box and the biobox/biobottle; APHA laboratory staff will forward the signed hard copies internally to the relevant APHA regional office.
- copies of the form should be placed in a zip lock bag and taped to the outside of the biobottle/placed in biobox; a copy of the forms should be faxed or emailed to the relevant APHA office; the OV should retain a further copy in the plant files for future reference (retention period 12 months).

Reference: See Annex 15 on ‘Sample: TB110 Reactor Sampling and submission form’ for a sample of the form.

7.3.5 TB55a movement licences

Form TB55a is the proposal to slaughter deer. It will inform the OV of the arrival of deer from a restricted TB premises.

A copy of the TB55a will be sent by fax or email to the OV in advance.

Reference: See Annex 18 on ‘Sample: TB55a’ for a sample copy of the form.

Regulation: See The Tuberculosis (Deer) Order 1989 (as amended).

Note: Reactor deer moved for slaughter under movement licence must have a broad arrow 15 cm long clipped on the left hind quarter.

7.3.6 TB24 movement licences

Form TB24 is a movement licence issued by APHA authorising transport of cattle (reactors, IRs, DCs and any cattle from TB restricted herds that have not been tested

for TB) to a slaughterhouse. It must accompany animals during transport. Animals accompanied by a TB24 need to be slaughtered separately if they appear on the TB110, as well as inspected in detail.

Some cattle that are not reactors, IRs or DCs may travel to slaughter under a TB24. These cattle do not in principle have a higher risk of infection with tuberculosis than other cattle from restricted herds. These may be cattle that have not been tested for TB and animals that have had an inconclusive response to the skin test.

Since the regulations require that animals that have reacted inconclusively to the tuberculin are to be slaughtered separately, APHA will mark the TB24 of these animals with the words 'Inconclusive Reactor'.

When animals that should have arrived with a TB24 are found not to have one, this should be reported to APHA and the relevant Trading Standards department.

Reference: See topic 7.2.1 on 'Where or when to slaughter' onwards in section 7.

Reference: See Annex 9 on 'Sample: TB24'.

7.3.7 TB24a movement licences

Form 24a is a licence issued by APHA authorising movement of deer to a slaughterhouse. It must be given to the FSS representative on arrival to the slaughterhouse.

A copy of the TB24a will be sent by email to the OV in advance.

Note: For welfare reasons the deer should be slaughtered within 3 hours of arrival at the slaughterhouse and shall not be removed alive.

Reference: See Annex 17 on 'Sample: TB24a' for a sample copy of the form.

7.3.8 TB24b/g movement licences

Form TB24b is a movement licence issued by APHA authorising transport of cattle, listed by ear tag, from TB restricted herds to a slaughterhouse via an approved collection centre/slaughter market.

Form TB24g is a licence authorising movement of cattle from approved finishing units under restrictions to a licensed slaughterhouse.

Animals eligible for a TB24b/g are not considered reactors, IRs or DCs. They need only be subject to normal inspection procedures.

Reference: See Annex 12 on 'TB24b' for a sample copy of the form and Annex 13 on 'Sample TB24g' for a sample copy of the form.

Note that TB24g is the equivalent to TB24h from England that sometimes can be received at Scottish Abattoirs.

7.3.9 TB24c movement licences

Most clear testing cattle and calves under 8 weeks of age travelling direct to slaughter from holdings under TB restrictions, no longer require a specific TB24/TB24b licence. These animals can be consigned to slaughter by their owners under the terms of a general movement licence (TB24c), issued by the APHA at the time the herd is placed under restrictions.

Herd owners who are granted a general TB24c licence will not be required to forward a copy to the slaughterhouse, nor will it be necessary for a copy of the general TB24c licence to travel with the animals.

These animals, as with all cattle from a TB restricted herd, should be identified by means of an orange stripe along the back and FCI should indicate the herd is under restriction, but they will be subject to the normal inspection procedures.

General TB24c licences will automatically expire on lifting of TB restrictions. APHA retains the power to rescind a general movement licence at any time.

Reference: See Annex 10 on 'Sample: TB24c' for a sample copy of the form.

7.3.10 Exclusions from general licence (TB24c)

Reactors, IRs, DCs and any untested cattle aged 8 weeks or more are explicitly excluded from the general licence and will continue to be licensed to slaughter by APHA, under a specific TB24 travelling with the animal.

Animals may arrive at the slaughterhouse accompanied by TB24s prior to the OV receiving notification from APHA. In these circumstances, FSS staff should inform APHA of the arrival of such animals and wait for instructions.

7.3.11 TB16b movement licence

TB16b movement licences are issued to authorise movement of ear tag listed cattle from restricted premises to Approved Finishing Units, Approved Quarantine Unit or to a slaughterhouse through a Dedicated Sale for TB Restricted Cattle. These animals have passed a tuberculin test in the 90 days before movement and are not reactors, IR or DC. The licences should accompany the animals to the abattoir but, as with animals moved under a TB24b/g, they need only be subject to normal post-mortem inspection procedures.

Reference: See Annex 11 on 'Sample: TB16b' for a sample copy of the form.

7.3.12 FSS copy of licences

The person transporting the animals, on arrival at the slaughterhouse, must give a copy of the TB24, TB24b, the TB24g, TB16b, TB24a or the TB55a licences to the FSS representative.

The table below shows which forms, licences and certificates accompany which animals to the slaughterhouse.

Form/ licence	Reactors	DCs	IRs	Cattle not tested for TB	Clear-testing cattle and calves under 8 weeks	On-farm slaughter
FCI	✓	✓	✓	✓	✓	✓
TB110	✓	✓	✓			✓
TB24	✓	✓	✓	✓	**may happen**	
TB24b					✓	
TB24c					✓	
TB24g				✓	✓	
TB16b					✓	
TB24a (deer)	✓	✓	✓			
TB55a (deer only)	✓					

7.3.13 Irregularities

APHA will contact the OV if, after submission of the TB110, there is any change to the number of cattle sent for slaughter or to the sampling code.

Note: in some cases, fewer cattle may be delivered than expected, but never more than pre-arranged.

If the OV believes that animals from a TB restricted establishment have been presented for slaughter without all the necessary documentation, they should inform APHA and the LA.

APHA should also be contacted if, due to missing paperwork, conflicting information, or any other circumstances, the OV is not sure if an animal from a TB restricted establishment requires detailed post-mortem examination and sampling.

7.4 Reactor animals: notification and responsibilities

7.4.1 Overview of responsibilities

Type	Responsibility	Duty
Reactors, IRs and DCs	APHA	• Inform FBO and FSS in advance of the date and number of animals delivered for slaughter. • Electronic submission of spreadsheet for each batch of animals for recording of post-mortem findings (TB110) • Allocation and communication of sample code that applies to each batch. • Issue licences (TB24, TB24a). Provide Work Schedule Activity (WSA) and reactor tagging information.
	FSS	• Detailed inspection of carcase and offal from reactors. • Collection of tissue samples as determined by the batch sampling code ensuring traceability during the inspection and sampling process. • Packing and despatch of all samples to the assigned APHA TB diagnostic laboratory. • Completion of electronic documentation, including the details of lesions in a way that facilitates tracing them back to the herd of origin and sign paperwork accompanying the samples to the lab. Order of consumables (such as labels, pots and bags)

7.5 Reactor animals: inspection requirements

7.5.1 Additional detailed inspection

A detailed inspection must be carried out on animals included in the following categories:

- Reactor or direct contact cattle compulsorily purchased and slaughtered by APHA at contracted slaughterhouses (These animals must arrive at the slaughterhouse with FCI advising they originate from a restricted herd, a movement licence (TB24), and be listed on the TB110).
- Reactors or IR cattle voluntarily slaughtered for which APHA require samples (these will be accompanied by TB50 but they may be sent to any slaughterhouse). When samples are required for animals in this category, APHA will inform the Vet Advisor, and send a prepopulated TB50, who will in turn forward the information to the FSS staff at the selected slaughterhouse.
- Deer compulsorily purchased and slaughtered by APHA.

  In the case of reactor animals, the following lymph nodes (LN) and organs must be examined in detail (visual inspection, palpation and incision) if they have not been examined already:

Routine inspection	Additional requirements
Retropharyngeal LN*	Prescapular LN
Parotid LN	Superficial inguinal LN
Submandibular/ Submaxillary LN	
Bronchial* and Mediastinal* LN	
Lungs*	
Pleura	
Hepatic LN	
Liver	
Mesenteric LN (representative sample)	
Supramammary LN	
Udder**	

* Tissues where tuberculosis lesions are most commonly found

** See subtopic below

Note: Additional examinations of any other lymph nodes, such as those enlarged and/ or haemorrhagic, may take place whenever considered necessary.

Regulation: Regulation (EC) 2019/627, Article 14.

7.5.2 Udder inspection

The inspection of udders from reactor cattle is particularly important as they are not routinely incised unless they are for human consumption. In addition to the visual inspection and incision of the supra-mammary lymph nodes, the udder of cows must

be visually inspected and palpated. If abnormalities are found during these, or when the udder is intended for human consumption, then deep incisions must be done into each quarter of the udder as far as the lactiferous sinuses.

Regulation: Regulation (EC) 2019/627, Article 19, 2 (g).

7.5.3 Incision method

Cuts into the lymph nodes should be made across the node in at least two directions (criss-cross pattern) to reveal as much as possible of the core of the node. Care should be taken to examine the tips of the node. This method will reveal most TB lesions or reveal an area which appears abnormal which can be further incised.

Lesions in the lungs, liver and udder are most commonly found on inspection or palpation. Where abnormalities are felt on palpation the abnormal areas should be incised for further investigation. Careful small incisions at the border of the lesions should be made to reduce exposure to infective material. If the lesion is found to be typical of TB, no further incision is required into that lesion.

7.5.4 Hygiene precautions

Any equipment used to incise or examine the lymph nodes must be cleansed and sterilised before undertaking post-mortem procedures on subsequent carcases on subsequent carcases, including changing of gloves in between different carcases/ sets of offal, when lesions are identified.

7.6 Reactor animals: post-mortem decision

7.6.1 Judgement of meat

Decision on whether meat is fit for human consumption is based on the findings during post-mortem inspection.

Where there are indications of generalised TB or TB lesions with emaciation the entire carcase and all the blood and offal should be rejected as unfit for human consumption.

All meat from animals in which post-mortem inspection has revealed localised tuberculosis in a number of organs or a number of areas of the carcase are to be declared unfit for human consumption. However, when a TB lesion has been found in the lymph nodes of only one organ or part of the carcase, only the affected organ or part of the carcase and the associated lymph nodes need to be declared unfit for human consumption.

Regulation: Regulation (EC) 2019/627, Article 33.

7.7 Reactor animals: sampling

7.7.1 Relevant animals

In general, the collection of diagnostic samples by the FSS is limited to reactors, DCs compulsorily slaughtered and some reactors or IRs which has been voluntarily slaughtered (cattle entered on a TB110/TB50 as requiring detailed post-mortem inspection).

In the rare but possible occurrence when reactors arrive to a non-contracted plant (considering that farmers do have the option of refusing valuation and private slaughter), APHA will issue a TB110/TB50 and advice on the sampling protocol. These animals cannot be considered/ treated as slaughterhouse cases.

7.7.2 Responsibility for collecting samples

APHA, before sending animals to the abattoir, will provide the FSS Vet Advisor with the details of likely numbers and sampling protocol 48 hours in advance and will then submit electronically a copy of the TB110/TB50 (see Annex 15) by noon the day before the kill date. This will be forwarded to the relevant OV covering the plant. The form will include:

- the number of animals to be sent from each holding
- the reason for submission (reactor, IR, DC)
- the sampling code for each batch

Once the required samples have been collected the carcases and offal can be released if they have been found fit for human consumption.

7.7.3 Death of reactors/ DC/ IR on arrival or in lairage

In the event of a Reactor being found dead on arrival (DOA), or dead in the lairage (DIL), the OV must contact APHA and explain the circumstances. APHA will inform the OV if any diagnostic samples for TB are to be collected.

Reference: The OV must be aware of the requirement to test for TSEs in over 48/ over 24 month DOA or DIL bovines as per instructions in chapter 2.6 on ‘TSE Testing’ and also consider the possibility of anthrax.

7.7.4 Sampling codes

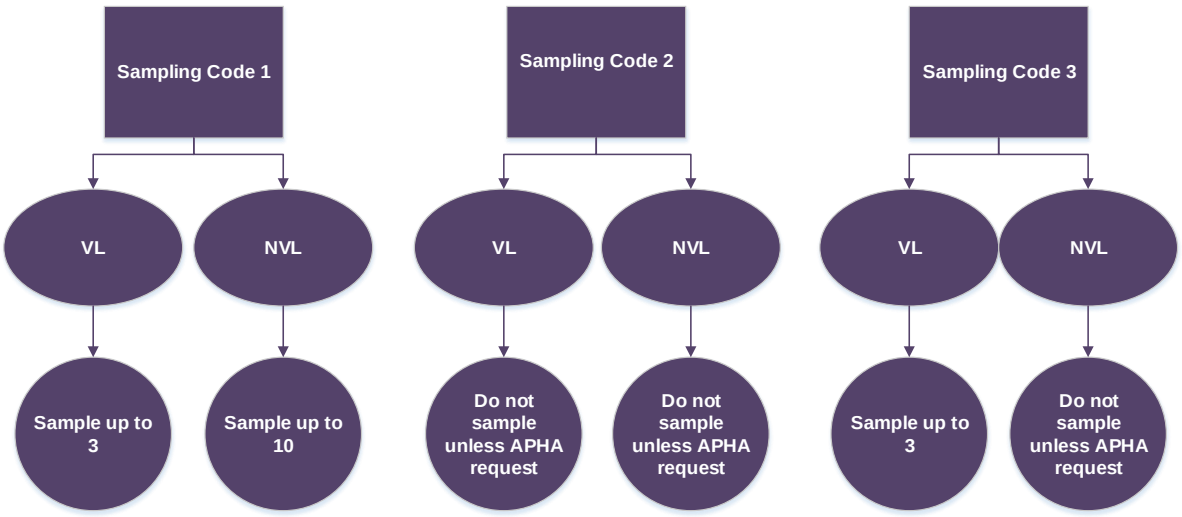
APHA will request a sampling protocol for suspect animals from each farm using three sampling codes (SC1, SC2 and SC3). The sampling codes are allocated by APHA depending on the herd history and its current status. In addition, APHA will indicate whether additional or exceptional sampling is required.

Sampling code 1		Sampling code 2		Sampling code 3	
Visible lesions (VL)	No visible lesions (NVL)	Visible lesions (VL)	No visible lesions (NVL)	Visible lesions (VL)	Non Visible lesions (VL)
Collect samples from maximum of 3 VL animals per herd. No NVL samples required	Submit samples from 10 animals per herd (or from all if less than 10 animals)* For animals originating from herds in Wales submit samples from 3 animals per batch sent to slaughter (or from all if less than three animals)	Do not collect samples unless APHA request	Do not collect samples unless APHA request	Collect samples from maximum of 3 VL animals per herd or batch of animals sent to slaughter for animals originating from herds in Wales	Do not collect samples unless APHA request

***APHA will indicate which 10 need to be sampled where all are NVL and more than 10 cattle are submitted from each farm.**

****APHA will indicate in the Specific Info box of TB110 which 3 animals need to be sampled where all from the same farm are NVL.**

Regardless of the indicated sampling code (SC), if suspect lesions are detected in udder of SMA LNs, samples need to be collected and submitted (no more than 1 sample per farm).



7.7.5 Sampling code 1: typical lesions identified (VL)

All lesions typical of TB should be collected when required (sampling code 1 or sampling code 2 with specific request from APHA).

A typical lesion is where infection with *M bovis* is suspected and common colours (cream/ yellow) and common consistency (caseous/ calcified/ purulent) is identified. Any location is possible.

APHA has defined a visible lesion (VL) as a lesion that is visible to the naked eye and typical of infection with *M bovis*.

An atypical TB lesion: location is no longer considered as criterion in deciding if lesion is typical.

AT - Atypical Lesions are lesions that are found in any location and do not have a common colour or consistency. Please record as NVL.

Lesions due to skin TB should not be collected and will not be classed as VL.

TB lesions in pigs are generally whitish-yellow granulomatous lesions which may contain areas of calcification. When collecting these suspected TB lesions, those with the most characteristic TB lesions should be chosen and only tissue samples from a maximum of three VL from pigs from the same herd should be collected.

All the lesions from each carcase should be pooled and placed in a single sealed 60 ml plastic pot to give one submission per animal. The samples should be two-thirds of the pot and should include the lesion plus some normal tissue from the border of the lesion, where possible. However, this may result in a large amount of tissue if a carcase presents multiple TB lesions. In this situation, sample only the two most characteristic lesions; however, if the lesion in its entirety does not fill two-thirds of the pot, please include comments to that effect in the relevant comments box of the form.

Note: Unaffected lymph nodes must never be submitted when typical TB lesions have already been found in the same carcase.

7.7.6 Sampling code 1: typical lesions not identified (NVL)

Non-visible lesions are those where no lesions typical of infection with *M bovis* are visible to the naked eye.

While this is not part of the APHA definition of NVL, for practical purposes this includes both where no lesions are found and where there are lesions that can be seen but infection with *M bovis* has been ruled out.

Where no lesions are found it is necessary to collect samples from all the following lymph nodes:

- all bronchial and mediastinal lymph nodes
- paired retropharyngeal lymph nodes
- any other lymph node if enlarged, abnormal and/or haemorrhagic

7.7.7 Sampling code 1: atypical lesions identified

An atypical lesion is a lesion where infection cannot be definitely attributed to M bovis and where common colours (cream/ yellow) or common consistency (caseous/ calcified/ purulent) are not identified, but where infection with M bovis cannot be ruled out.

Please note that an atypical lesion is neither a VL nor NVL for reporting purposes. In terms of case management APHA treats such lesions as NVL (unless they are later found as culture positive). Therefore, an atypical lesion should be recorded as NVL in the TB110, and ‘atypical lesions’ note entered in the TB110 comments box. The lesion descriptions should clearly reflect that it is atypical having ‘A’ at the end (e.g. M3YMxA)

If both typical and atypical lesions are found on the same carcase, submit samples from the typical lesion only. The only exception to this is when suspect udder/supra-mammary lesions are found; these should be submitted in addition to the typical lesion and in a separate pot (one per holding).

Where only atypical lesions are found, sample a pool of lymph nodes and record as NVL but also collect and send the atypical lesion in a separate pot.

This should only be used where a decision cannot be made and the possibility of infection with TB cannot be ruled out. When lesions are found in mesenteric lymph nodes in reactors from herds in Scotland, these should be treated as atypical, recorded as NVL in the TB110, and ‘atypical lesions’ note entered in the TB110 comments box.

7.7.8 Sampling code 2

Where APHA has allocated a sampling code 2 to a batch of animals there is no need to collect any samples, with only two exceptions:

- APHA may specifically request samples in certain cases.
- Where atypical lesions are found and there are no typical lesions in any animal from the same herd, sample the atypical lesion only and send for polymerase chain reaction (PCR) testing, making remarks to that effect on the 'specific information' section of the TB110.

7.7.9 Method

Each animal from which samples are needed must be individually sampled. Samples from more than one animal **must <u>never</u>** be pooled in the same pot. Care must be taken to prevent cross-contamination.

The following method should be used to collect samples for TB diagnosis.

<table>
<tr><th>Stage</th><th colspan="2">Description</th></tr>
<tr><td>1</td><td colspan="2">Collect samples cleanly to avoid contamination. Ensure the equipment used for inspection and sampling of carcases is disinfected between carcases to prevent the possibility of cross-contamination.</td></tr>
<tr><td>2</td><td colspan="2">Dissect samples free of surrounding tissues to limit the volumes of tissue submitted. Samples should be as fat and muscle free as possible.</td></tr>
<tr><td rowspan="3">3</td><td colspan="2">Where the carcase had visible lesions (VL) or non-visible lesions (NVL) samples are to be treated as follows:</td></tr>
<tr><td>VL</td><td>NVL</td></tr>
<tr><td>Remove suspicious node or lesion in its entirety if small or a sample the size of 2/3 of a pot if large and pool up to two of the lesions from the same area of the carcase in a pot. If the lesion in its entirety does not fill 2/3 of the pot, please include comments to that effect in the relevant comments box of the form.</td><td>Pool lymph nodes collected from the same carcase and place in a pot. The 60 ml pot should be 2/3 full. If there are any atypical lesions, collect separately from pool.</td></tr>
<tr><th>Stage</th><th colspan="2">Description</th></tr>
<tr><td>4a</td><td colspan="2">Mesenteric chain lymph nodes should only be collected when no other lesions are present. They must not be included in the pooled sample and must be collected separately from other lymph nodes from the same</td></tr>
</table>

	carcase. This is to minimise contamination of the pooled sample with bacteria that could inhibit the growth of *M. bovis* in the laboratory.
4b	Suspicious lesions in the supramammary nodes should always be submitted from any carcase (max. 1 per CPH). As for mesenteric nodes they should not be included in any pool of samples they need to be submitted in a separate pot.
5	The OV must be present in the slaughter-hall during the post-mortem inspection to ensure that the correlation is maintained and that findings are accurately recorded for each carcase. The OV must also ensure that the samples are secured prior to despatch.
6	APHA requires complete and accurate records of all findings from each animal, including those from which no samples have been taken, in the electronic form (TB110). This information will be used in deciding the future management of the herd. The completed form must be e-mailed to APHA (at the email address from which the TB110 originated) before despatch of samples (by 3pm if samples sent to the lab on the same day, or by noon next day when the samples are despatched the following day). If samples are collected, the TB110 must also be emailed to the APHA laboratory: (TBDiagnosticTeam@apha.gov.uk). A hard copy of the TB110 must be signed by the OV and should be faxed or emailed without delay to the relevant APHA office. The signed hard copy must be placed in an envelope, this envelope should be marked 'Originals' and placed between the outer box and the biobox/biobottle. APHA laboratory staff will forward the signed hard copies internally to the relevant APHA regional office. A copy of the form should be placed in a zip lock bag and taped to the outside of the biobottle/placed in biobox. The OV should retain a further copy in the plant files for future reference.
7	Each sample pot must have a unique traceability label stuck on the outside of the pot. The outside of the pot must be kept clean and the lids must be tightly closed to prevent leakage. In the event of the pot getting wet, it must be dried to ensure that the traceability label can be affixed when the sample is placed inside the pot. To maintain traceability, pots must be labelled before being moved from the slaughter-hall. Each pot must then be placed inside a bag which is knotted tightly and excess bag trimmed off.
8	If more than one pot is submitted for a single animal (pool in one pot and atypical lesion in a separate pot) place all the individual sample pots, each in its own bag.
9	All bagged pots must then be placed in a biobox or biobottle (depending on number of pots) which is sealed. A copy of the completed forms must then be placed in a zip lock bag which is taped to the outside of the biobox.
10	Further packaging (box/bag) is then applied in line with courier instructions (see topic 7.12 on 'Packing and despatch of samples').

11	Retain chilled, pending their collection by a courier for transfer to the APHA laboratory. They must not be frozen unless instructed to do so by APHA. If frozen the sample and the packaging must be marked: 'frozen sample'.

7.7.10 Sampling code 3

Where APHA has allocated a sampling code 3 to a batch of animals, only VL samples need to be taken up to a maximum of 3 animals per specific holding.

Check the 'specific information' column of the TB 110 form because in some cases only 1 or 2 samples per holding may be required by APHA.

Ensure that at least 2/3 of the pot is full when collecting the sample.

NVL lesions do not need to be submitted with this sampling code.

7.7.11 Completion of sampling and submission from (TB110)

The TB110 has two parts.

- The first will be completed by APHA with details of the holding, CPH number, ear tags, any other relevant information and the sampling code that applies to each batch.
- The second part must be completed by the FSS and be signed by the OV. The findings in each carcase, including those for which samples are not required, must be recorded using codes to identify the lymph nodes/tissues and the description of the lesions where applicable (see below).

Where lesions are found in the lungs and/or udder suggestive of possible discharge of bacilli to the exterior (open tuberculosis) this has epidemiological importance and should be recorded in the comments box of the TB110.

The form must be sent electronically on completion to the originating email address and a hard copy, signed by the OV, must also be faxed or emailed.

The TB110 must also be sent electronically to the APHA laboratory (TBDiagnosticTeam@apha.gov.uk) and a signed hard copy marked as ORIGINALS must accompany the samples.

7.7.12 Completion of TB 50

The TB50 form is used to record post-mortem findings on suspect TB carcases of bovine animals (cattle, buffalo and bison).(see section 7.9 on 'The slaughterhouse case').

Note: There is no need to complete TB50 forms for reactors slaughtered at APHA contracted abattoirs as the post-mortem findings are collated on the TB110. However,

for IR where farmer chose other abattoirs other than contractors, APHA Scotland will send the TB50 prepopulated to FSS Vet Advisor.

Reference: See Annex 16 on 'Sample: TB50' for a copy of the form.

Non-bovine species: In Scotland, a WSA number will be supplied by Scottish Government to the OV once the suspicion has been reported. A copy of the TB50 form is to be emailed ASAP to the relevant email address: see 7.9.5 for details for the different countries. No samples should be submitted or discarded without authorisation from APHA.

7.7.13 Codes used to complete the TB forms

Codes will be used to describe the lesions, with six criteria used: location, number, size, colour, consistency/texture and presentation.

1. **Location:** Retropharyngeal (RP); Parotid (PA); Submandibular/ Submaxilary (SM); Bronchial and Mediastinal (BM); Lungs (Lu); Pleura (Pl); Hepatic (HEP); Liver (Li); Prescapular (PSc); Superficial Inguinal (SI); Mesenteric (MES); Supramammary (SMA); Udder (U); Other (O)
2. **Number**:
    - Single (S) – a distinct single lesion in the lymph node/ organ
    - Multiple (M) – up to 6 distinct lesions in the lymph node/ organ
3. **Size:** <2mm – (1); 2-10mm – (2); 11-50mm-(3); >50mm- (4)
4. **Colour:** Cream ©; Yellow (Y); White (W); Other (O)
5. **Consistency/ texture:** Caseous (Ca); Calcified (Cf); Purulent (P); Granulomatous (Gr); Mixed [Ca and CF] or [Ca and P] (Mx)
6. **Presentation**: Typical (T); Atypical (A)

For a typical lesion if the description cannot be provided from the above options a description can be entered in the comments box.

Note: For packing and despatch of samples, please see topic 7.12 on 'Packing and despatch of samples' later in this section.

Note: if multiple lesions, please record the largest size in that location

7.8 Reactor tag sampling

7.8.1 Overview

The aim of this programme is to compare the ears collected from TB reactors in order to audit fraudulent procedures in relation to reactor removal. This will be audited by cross matching 2 tissue samples:

- tissue collected in the DNA capsule when tagging TB reactors at the time of the TB test
- tissue taken from the ear of TB reactors at the point of slaughter

  The Reactor Ear testing programme will comprise of 3 elements:

- Targeted collection where FSS have identified at point of slaughter possible tampering with tags, either official or reactor tags, or missing reactor tags.
- Targeted collection where APHA identify a risk and request FSS to collect both whole ears (which do not have to be connected), from specifically identified animals.

Random collection of the required number of ears selected by FSS at each slaughterhouse on a monthly basis.

The OV at contracted TB Reactor slaughterhouses will prepare a protocol (already known also as authorised method of operation) to summarise and ensure that the previously described instructions for the processing of TB Reactor animals are followed.

Please Note that currently there are no APHA-contracted abattoirs in Scotland.

7.8.2 Notification to slaughterhouse/ FSS of reactor details

Animals submitted for slaughter for TB control will either be R or DCs and will be sent for slaughter in one of the following ways:

- submitted as part of haulage and salvage to one of the slaughterhouses contracted by APHA to process TB reactors
- private slaughter organised by the owner but moved under licence issued by APHA

DCs will not have reactor tags and are excluded from this programme, however any other suspicion of fraud should be investigated as described in the SMOC.

Most TB reactors will have a reactor tag applied. However, there are a few exceptions to that rule where reactors may not be tagged and are considered ineligible categories:

- reactors identified following skin test re-interpretation (standard to severe) after PM/ PCR (or culture) results

- animals have not been tagged at Tuberculin Test day 2 (test reading day) for operational reasons
- gamma positive reactors

The assumption is therefore that apart from those ineligibles for this programme all reactors disclosed at a skin test and entering the slaughterhouse will be marked with a reactor tag. In the comments box of the TB110, the following reasons will be given to indicate that an animal will not have a reactor tag and is ineligible:

- 'tag not applied' where APHA are aware that an animal has not been tagged for any reason
- 're-interpretation' where an animal became a reactor after the skin test due to re-interpretation of the skin measurements
- 'gamma' where an animal has failed the gamma interferon test

7.8.3 Action when animal arrives at slaughterhouse

Apart from those specifically requested by APHA, the level of reactor animal identity checking by FSS should be as per existing instructions in the SMOC.

Where FSS undertake an identity check, the following details should be compared with the information submitted to them by APHA:

- ear tags match the cattle passport
- reactor tag present if not reported as 'tag not applied' or one of the categories not eligible for tagging (re-interpretations or gammas)

The following action should be taken:

- record findings, on ID checklist or FBO sheets where applicable
- check if any evidence of tampering or other fraud
- if evidence found, notify LA Trading Standards as per existing processes and retain relevant part of the animal

7.8.4 When is an ear sample required?

The reactor tag scheme requires a sample (comprising both whole ears and all tags present in those ears) to be collected from any animal which comply with one of the criteria described below.

A sample will be required in the following circumstances unless otherwise instructed. The FSS Targeted and the APHA Targeted may be required in slaughterhouses in Scotland:

- **FSS targeted** – Whenever a FSS officer finds evidence of fraud, the tag has been tampered with or other ID non-compliance.

For example, reactor tag missing when expected to be present (TB110 will state if 'not applied' or one of the other ineligible categories), ear tags tampered with, indecipherable documentation, animal does not appear to match that expected (age, breed, sex)**.**

- **APHA targeted** - When requested by APHA, Intelligence led targeted examination of animal ID and sampling.

APHA will state 'COLLECT EARS' in the TB110 comments box when ears are required to be collected.

In exceptional cases APHA may contact the FSS representative at a slaughterhouse (by phone) to request an urgent identity check and request ear samples to be taken.

For all other animals, that is TB reactors that have not had a reactor tag applied or Direct Contacts, any suspicion of fraud should be investigated as described in this chapter, section 7.

7.8.5 Collection of samples, packing and despatch of ear samples from FSS

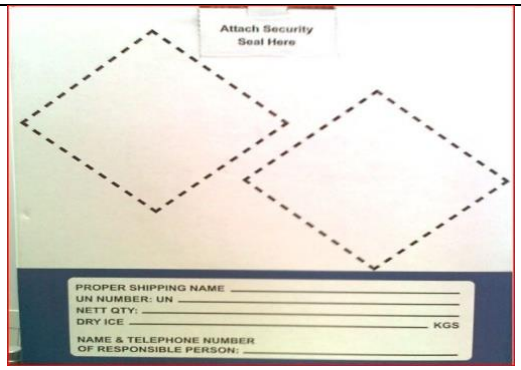
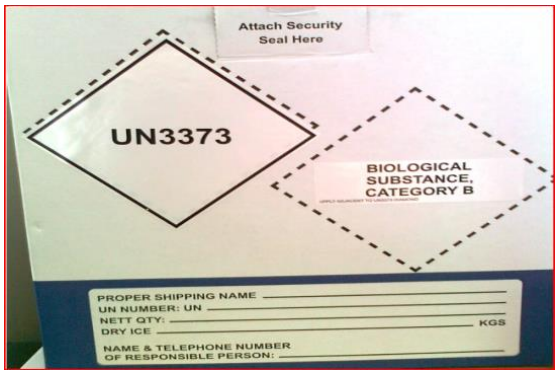
For continuity of evidence all processes should be completed by the same person (removal of the ears, completion of sample submission form, labelling and bagging in tamperproof/evidence bag and packaging of samples packed for dispatch).

The following protocol should be followed:

A. Preparation of packing systems:

Step	Action
1	The packing materials consist of the following: • Biotherm boxes (system 5, 10 or 15, depending on number of samples collected) • Grip seal bags (8" x 11") • Absorbent pads • Tamperproof/ evidence bag • Ice Brix (2 per box)
2	Biotherm 5 boxes have been issued for routine sampling and only one pair of ears should be packed in this system. In the event multiple sample collection is required (targeted sampling) the Biotherm 10 and 15 systems should be used and will be supplied by APHA.
3	All Biotherm systems will be supplied by APHA and need to be prepared for first initial use; once preparation has been completed, using the protocol below, the systems can be re-used and will be returned by APHA. **Net Qty:** One sample

	Dry Ice: less than 1 kilogram. **Name and telephone number of responsible person:** FSS contact name and number Ice Brix must be 'hard' frozen before use, x2 Ice Brix should be sufficient for the Biotherm 5 system.
4	**On the lid of the box complete legibly and accurately.**  **a) Consignee details with:** APHA TB DNA Testing Food Standards Scotland Sample Reception Area New Haw Addlestone Surrey KT15 3NB **b) Consignor details with:** Full Address of the abattoir Postcode
5	Open the box and remove the labels supplied, place to one side.
6	On the front panel stick the UN3373 label in one of the pre-marked diamonds and place the Biological Substance Category B label adjacent to the UN3373 diamond (see photographs).

	 
7	Discard the Infectious Substance label; **this must not be used.**
8	Complete legibly and accurately the front panel: **Proper shipping name:** Biological Substance Category B **UN Number:** UN3373 **Net Qty:** One sample **Dry Ice:** less than 1 kilogram. **Name and telephone number of responsible person**: FSS contact name and number Ice Brix must be 'hard' frozen before use, x2 Ice Brix should be sufficient for the Biotherm 5 system.

B. Notify APHA that ear samples have been taken:

Step	Action
1	Whenever ear samples are taken, FSS abattoir staff must notify APHA Central Tagging Team that a sample has been taken and submitted to APHA Lab at Weybridge.
2	A copy of the signed sample submission form (Annex 20 on 'Material for DNA analysis') should be faxed **or** scanned and emailed to the APHA central tagging team at: Email: AHspecialistservicecentreworcester@apha.gov.uk

C. Collection and preparation of ears (x1 pair):

Step	Action
1	Place the pair of ears (from the same animal) into a grip seal bag (8” x 11”); remove any excess air from the bag and seal.
2	Place the bagged sample (x1 pair of ears) inside another grip seal bag (8” x 11”), add an absorbent pad, and remove excess air and seal.
3	Place the ‘double bagged’ sample (x1 pair of ears) into the tamperproof/ evidence bag and seal to meet continuity of evidence requirements.
4	Complete legibly and accurately the tamperproof/evidence bag in the section marked **‘FSS Use Only’.**
5	Put in the refrigerator or freezer for chilling. This will reduce excessive moisture collecting in the bag.
6	Complete the sample submission form legibly and accurately. If samples have been taken due to evidence of tampering, ensure the tampering suspected box is ticked on the sample submissions form.
7	Send a copy by fax to APHA Central Tagging Team (as above at B step 2) and place in a grip seal bag (8” x 11”) remove excess air and seal.
8	Add the hard frozen Ice Brix to the Biotherm system and place the sample next to the Ice Brix (x2 Ice Brix per biotherm system).
9	Place the sample submission form on top of the sample (inside a plastic bag), close the polystyrene lid (expanded polystyrene), close outer flaps and seal with security label or brown tape. Where samples from more than one animal are in the box, ensure the bag containing the sample submission form is attached to the corresponding tamperproof bag.
10	As soon as you receive the sampling request information from APHA, book the samples collection by the courier online at http://www.topspeedcouriers.co.uk/or with the following information: • establishment name and approval number • date for each kill day and whether samples are likely to be sent from that day (will depend on whether any are sample code 1); this information will allow Topspeed Couriers to plan the collections to include multiple pickups where possible • destination laboratory • name and telephone number for the FSS contact at the plant

D. Preparation of biotherm replacement of outer box:

Step	Action
1	If the outer carton becomes damaged a replacement carton should be obtained and prepared for use, using the protocol below: **N.B. A replacement outer carton is not supplied with UN3373 label and this will need to be obtained when ordering replacement carton** • Assemble the flat pack box • On the front panel stick the UN3373 label in one of the pre-marked diamonds • Write in permanent black marker pen, in letters at least 6mm high and adjacent to the UN3373 label **'BIOLOGICAL SUBSTANCE CATEGORY B'**
2	Complete legibly and accurately the front panel: **Proper shipping name:** Biological Substance Category B **UN Number**:UN3373 **Net Qty:** One Sample **Dry Ice:** less than 1 kilogram. **Name and telephone number of responsible person:** FSS contact name and number
3	Insert the polystyrene box
4	Ice Brix must be 'hard' frozen before use, x2 Ice Brix should be sufficient for the Biotherm 5 system.
5	Follow Collection and Preparation of Ears (x1 pair) protocol
6	Resupply of packaging and dispatch equipment should be ordered by completing and submitting the CS115 form (Annex 19 – note that this is an English example as for now there is no reactor abattoirs in Scotland)

7.9 The slaughterhouse case

7.9.1 Definition

Carcases and offal with suspicious TB lesions found during routine meat inspection are called 'slaughterhouse cases'. The animals may or may not have come from a TB restricted premises.

7.9.2 Responsibilities

The table below outlines the responsibilities.

Slaughterhouse cases	APHA	• authorise and request the submission of suspected tissue samples and provide batch number (Work Schedule Activity – WSA)
	FSS	• Reporting of cases found during post-mortem inspection where TB is suspected to APHA • Additional detailed inspection of the carcases and offal, • Collection of samples, packing, completion of paperwork and submission of samples (when authorised) to the APHA TB diagnostic laboratory as per instructions • Ensuring traceability of samples during the inspection, collection and despatch of samples • Order consumables (such as labels and pots)

7.9.3 Skin tuberculosis

Animals presenting skin lesions only should not be treated as a slaughterhouse case, surveillance is not required and samples do not need to be collected. *M bovis* is rarely isolated from skin lesions.

7.9.4 Differentiate between lesions

Because different sampling and diagnostic testing is required in each situation, FSS staff must positively differentiate between lesions which are:

- tuberculosis (TB) Action – Inform APHA and collect samples for analysis
- tumorous (EBL) Action – **Reference:** See section 5 on 'Enzootic Bovine Leukosis' for additional information

7.9.5 Notifying APHA

Where the OV cannot positively rule out TB as the possible cause of the lesion(s) the suspect case must be reported to APHA without delay. The OV must inform APHA by telephone (call the local office – The OV will be passed to the duty vet), so that they can discuss and make a decision as to whether samples must be sent to the laboratory, and to allow trace back to the farm of origin, giving details of the case such as:

- the nature of lesions found with their location

- the name and address of the person submitting the animal with ear tag number, lot number, CPH number and kill number in the additional remarks box of the TB50
- a description of the animal
- when the sample can be despatched

The details need to be recorded in a TB50, signed by the OV, and emailed to the ScotlandEndemics@apha.gov.uk and any other contacts the duty vet supplies. .

The OV must retain legible copies of the animal's identification (for example, cattle passport); kill sheet, FCI and other records that can be necessary for future investigations.

Contact details for slaughterhouse cases in non-bovine species:

If the animal originates from England:

- email the non-bovine administrative team at CSC.TBOS@apha.gov.uk or,
- contact the non-bovine administrative team at 0208 720 0992.

If the animal originates from Scotland:

- email ScotlandDutyVet@apha.gov.uk and copy in ScotlandEndemics@apha.gov.uk or,
- contact APHA Scotland on 03000 600708 and ask to be put through to the Vet.

If the animal originates from Wales:

- email APHAWalesTBSlaughterNon-Bovine@apha.gov.uk.

The email should include in the subject the species (for example "PIG SLAUGHTERHOUSE CASE") and marked as 'High importance'. The following information should be included in the email:

• Completed TB50

• CPH of originating farm

• Name of the owner

• Name of the farm

• Slaughter Date

• Slaughterhouse name and approval number

• Number of animals

• Contact mobile number OV

The OV will be contacted as soon as possible, to discuss if samples need to be submitted for PCR testing. Where an APHA Vet is not available to review the slaughterhouse case notification immediately, samples should not be sent, nor discarded (advice from APHA can be sought the next day). It may be that samples will need to be submitted from more than three carcasses with Visible Lesions, from the same holding.

Regulation: The Tuberculosis (Scotland) Order 2007

7.9.6 APHA action

On notification from the FSS of the finding of suspect TB lesions, APHA must provide the sample Work Schedule Activity (WSA) ID number that must be recorded in the box at the top of the TB50 form. Once they have received the completed TB 50 form APHA will advise whether samples should be submitted for culture and of any special conditions. Where required, samples must be collected and submitted to the APHA laboratory for analysis.

7.9.7 Movement to detained area

After dressing, carcases and offal suspected of being affected with tuberculosis should be placed immediately in the detained area before additional detailed inspection is carried out and before being sampled, if required by APHA.

7.9.8 Transfer of carcases and offal

When transferring offal/carcases to a detained area for further inspection or sampling, care must be taken to prevent cross-contamination of other meat/ equipment/fittings in the slaughter-hall. In the event of suspected contamination, cleansing and disinfection of the affected area/equipment must take place before production recommences.

The PCR will detect DNA. Immersing the knives in water at 82°C or above will not inactivate the DNA. Adequate cleaning of the knives used to take the samples prior to disinfection will be essential to remove residues and to avoid potential false positive results.

Note: Failure by the plant operator to co-operate with this procedure would constitute a contravention of the operator's responsibility to prevent cross-contamination and must be dealt with accordingly.

Regulation: Regulation (EC) 2019/627, Article 33.

7.10 The slaughterhouse case: additional detailed inspection

7.10.1 Detailed inspection

In the case of animals in which there are grounds for suspecting TB the following lymph nodes (LN) and organs must be examined in detail (visual inspection, palpation and incision) if they have not been examined already:

Routine inspection	Additional requirements
Retropharyngeal LN*	Prescapular LN
Parotid LN	Superficial inguinal LN
Submandibular/ Submaxillary LN	
Bronchial* and Mediastinal* LN	
Lungs*	
Pleura	
Hepatic LN	
Liver	
Mesenteric LN (representative sample)	
Supramammary LN	
Udder**	

* Tissues where tuberculosis lesions are most commonly found

** See subtopic below

Note: Additional examinations of any other lymph nodes, such as those enlarged and/or haemorrhagic, may take place whenever considered necessary.

Regulation: Regulation (EC) 2019/627, Article 14.

7.10.2 Udder inspection

The inspection of udders in ‘slaughterhouse case’ is particularly important as they are not routinely incised unless they are for human consumption. In addition to the visual inspection and incision of the supra-mammary lymph nodes, the udder of cows must be visually inspected and palpated. If abnormalities are found during these, or when the udder is intended for human consumption, then deep incisions must be done into each quarter of the udder as far as the lactiferous sinuses.

Regulation: Regulation (EC) 2019/627, Article 19, 2(g).

7.10.3 Incision method

Cuts into the lymph nodes should be made across the node in at least two directions (criss-cross pattern) to reveal as much as possible of the core of the node. Care should be taken to examine the tips of the node. This method will reveal most TB lesions or reveal an area which appears abnormal which can be further incised.

Lesions in the lungs, liver and udder are most commonly found on inspection or palpation. Where abnormalities are felt on palpation the abnormal areas should be incised for further investigation. Careful small incisions at the border of the lesions should be made to reduce exposure to infective material. If the lesion is found to be typical of TB, no further incision is required into that lesion.

7.10.4 Hygiene precautions

Any equipment used to incise or examine the lymph nodes must be cleansed and sterilised before undertaking post-mortem procedures on subsequent carcases.

7.10.5 Correlation of TB suspect carcases and offal

The OV at any red meat slaughterhouse, where a TB suspect carcase and offal might be identified, will prepare a protocol to ensure the proper identification and correlation of TB suspect carcasses and offal. The protocol will be tailored to each plant so that any issues related to identifying and correlating the TB suspect carcase and offal are addressed. It must state that ‘each TB suspect carcase and offal is identified by a detained grey tag’.

The detained grey tags will be ordered by the Operations Manager (OM) to ensure that each red meat slaughterhouse holds a stock of these tags on the premises. Each plant will have their own detained bag systems in place.

7.10.6 Judgement of meat

Decision on whether meat is fit for human consumption is based on the findings during post-mortem inspection.

Where there are indications of generalised TB or TB lesions with emaciation. The entire carcase and all the blood and offal should be rejected as unfit for human consumption.

All meat from animals in which post-mortem inspection has revealed localised tuberculosis in a number of organs or a number of areas of the carcase are to be declared unfit for human consumption. However, when a TB lesion has been found in the lymph nodes of only one organ or part of the carcase, only the affected organ or part of the carcase and the associated lymph nodes need to be declared unfit for human consumption.

Regulation: Regulation (EC) 2019/627, Article 33.

7.11 The slaughterhouse case: sampling

7.11.1 Collection of samples

When visible lesions found during post-mortem inspection cause suspicion of tuberculosis, samples need to be collected and sent for analysis, when authorised by APHA. The sampling procedures are the same as previously described for reactors, where VL is found and Sampling Code 1 applies. Please note that NVL samples are NOT to be sent for slaughterhouse cases.

Remove suspicious node or lesion in its entirety if small or a sample the size of two-thirds of the pot if large and pool up to two of the suspected lesion tissues from the same carcase.

If the size of the affected tissue and/or lesions from slaughterhouse cases is too small to make up two-thirds of the pot, then comments must be included on the TB50 form to that effect. If the lesion identified is small, but there are multiple lesions, the multiple lesions must be included to make up the maximum required volume.. However, mesenteric lymph node and supramammary/udder tissue are exceptions and should be submitted separately as they are generally more heavily contaminated with other bacteria and could interfere with the TB culture process conducted on PCR positive samples to enable Whole Genome Sequencing (WGS) analysis.

Samples are not required from clear testing cattle/farmed non-bovine species from TB restricted establishments (arriving at the slaughterhouse without a TB24), unless lesions suggestive of TB are found during post-mortem inspection. In this case, the ‘slaughterhouse case’ procedures apply.

7.11.2 Completion of TB 50 form

In addition to the telephone report, fill in a separate sample submission form (TB50) for each slaughterhouse case detected. The OV must give a detailed description of the location and nature of the suspect lesions on the TB50, including comments where the sample is smaller than required. A properly completed TB50 form (including the WSA number) will enable APHA to quickly trace back the slaughterhouse case to its herd of origin. Based on this information APHA will put in place the appropriate TB control measures.

In this scenario, the OV is expected to either confirm the lesion as being characteristic of TB or, alternatively, be able to rule it out. If the OV has any doubts and/or difficulties are found when completing the TB50 form, the OV can contact their FSS VA or call the local APHA office where they can ask the duty vet for advice.

Reference: See Annex 16 on for sample TB50 form.

7.11.3 Distribution of the TB 50 form

The properly completed and signed TB50 form must initially be emailed to the local APHA office as soon as possible. Subsequently:

- the signed hard original copy of the TB50 form must be placed in an envelope, this envelope should be marked 'Originals' and placed between the outer box and the biobox/biobottle; APHA laboratory staff will forward the signed hard copies internally to APHA at ScotlandDutyVet@apha.gov.uk and copy in ScotlandEndemics@apha.gov.uk
- a copy of the form should be placed in a zip lock bag and taped to the outside of the biobottle/placed in biobox; copy of the forms should be faxed or emailed to the relevant APHA office.

OV should retain a further copy in the plant files for future reference (retention period 12 months).

7.11.4 Packing and despatch of all TB samples

Samples must be sent to the APHA laboratory with the forms. They should be sent as soon as possible and by the next working day at the latest.

If APHA advises that the samples do not need to be sent to the laboratory, then they must be disposed of as ABP. These discarded samples are classed as category 2 ABP and can also be disposed of as category 1 ABP.

Reference: See topic 7.12 on 'Packing and despatch of samples' at the end of this section.

7.12 Packing and despatch of samples

7.12.1 Packing

1. All samples must be submitted in a 60ml pot.
    - Outside of pot must be kept clean.
    - Remember to tighten lids. Give an extra turn before packing.
    - Avid cross threading the lids as they will cause the pots to leak.
2. Stick label on outside of pot: ear tag/CPH printed and the WSA number (APHA duty vet will provide) on label.
3. Place each individual pot in a plastic bag which is knotted tightly. Trim off excess bag.
4. If submitting more than one pot for a single animal (pool in one pot) atypical lesion in a separate pot.

- Label each pot and write on label what is in each pot, for example, pool/mesenteric.
- Place each pot in a separate bag and tie as previously.
- Place both bagged pots in a third bag and tie the bag.
- Make note in comments section on the TB110 or TB50 detailing how many pots submitted and what is in each pot.

5. Place all bagged pots into a biobox/biobottle along with the absorbent pad/material and seal the box. The person introducing samples inside the biobox/biobottle must wipe their hands with 70% ethanol wipes before introducing the samples. The outside of the biobox/biobottle must also be wiped. The process for sending forms is as follows:
    - Signed hard copy TB110 and original TB50 forms must be placed in an envelope, this envelope should be marked ‘Originals’ and placed between the outer box and the biobox/biobottle. APHA laboratory staff will forward the signed hard copies internally to the relevant APHA regional office.
    - Copies of those forms should be placed in a zip lock bag and taped to the outside of the biobottle/placed in biobox. Copies of these forms should be emailed to the relevant APHA office. The OV should retain a further copy in the plant files for future reference. (Retention period 12 months)
6. Place biobottle into the outer box. Before use the biobox/biobottle must be stored in a separate clean area to amid possible cross contamination.
7. Attach address label.
8. Attach security seal.

Store the package in the chiller until the time of collection. Ideally, place in a waterproof bag/container to avoid contamination. The outer box needs to clearly read: ‘TB samples open only in CL3’. If the box has not been pre-stamped, please write or use the sticker provided.

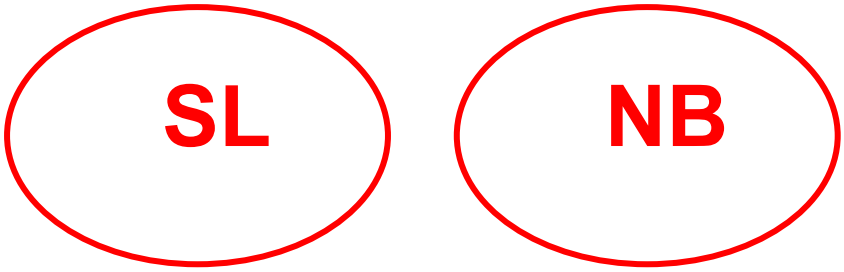
For ethanol wipes please contact FSS Field Operator Coordinator or OM to order them.

NOTE: On 30th of March 2022, APHA launched the operational use of *Mycobacterium bovis* (M. bovis) PCR test as the primary post-mortem diagnostic tool for bovine tuberculosis (bTB). The test is currently being used on all non-bovine samples and samples from bovine SLH cases. More information can be found at PCR test for detection of M. bovis in post-mortem tissue samples - Bovine TB | TB Hub.

Currently, the PCR test is conducted only at one of the three APHA laboratories, at APHA Starcross. Due to the intricacy of the current arrangements with Topspeed it was decided that we will not be changing requirements for OVs in terms of where they need to send samples from non-bovine animals or bovine SLH cases. However,

APHA lab staff want to avoid opening up the package to then realise it needs submitted to another lab, as this has been identified as a H&S risk.

To avoid unnecessary operational changes for you and to provide a temporary workaround until all their 3 labs can conduct the PCR test, we ask you to continue to send all samples as per SMOC instructions; however, for the ones meeting the criteria for the PCR test (SLH cases and NB) please **hand write on the top of the outer box** either **SL** (for slaughterhouse case) or **NB** (for non-bovine cases). The mark should be made with a red marker pen and highlighted with a circle, as shown in the example below:



If you do not have a red marker pen in the plant, please purchase one and claim back via miscellaneous expenses – your OM can provide the template, if required. **Despatch: The current courier for the sampling process is Topspeed Couriers. The courier process is as follows:**

Step	Action
1	As soon as you receive the required information from APHA, book a collection at http://www.topspeedcouriers.co.uk/or email the APHA Preferred Courier (currently Topspeed Couriers at tb@topspeedcouriers.co.uk) with the following information: • establishment name and approval number • destination laboratory: APHA Weybridge New Haw Addlestone Surrey KT15 3NB Please ensure you record in OWS sample section the address of the APHA lab where the sample will be sent to. • name and telephone number for the FSS contact at the plant. The complete process is set out in Annex 21

2	The APHA preferred courier will confirm the date that the samples will be collected. If samples need to be kept at the establishment overnight, please ensure that they are sealed in the packaging requested from APHA and store in a chiller or cold room.
3	The APHA preferred courier is required to deliver the samples within 2 working days. For example, if samples are taken on Tuesday, samples are required to be with APHA by 5pm on Thursday. Samples can be delivered up to 3pm only on a Friday.
4	On detection of a slaughterhouse case, notify the courier that samples are required to be collected and they will organise a collection which meets the 2 working days delivery requirement; for example, a SH case found on a Monday, samples are required to be with APHA laboratory by 5 pm Wednesday but collection could either take place on Monday, Tuesday or Wednesday, as the couriers are required to consolidate their delivery runs to be cost effective.

TB sample collection requests should be also noted in OWS Sample Request application.

Note: OVs to ensure that samples are despatched to allow delivery to the laboratory within 2 working days of kill and are kept chilled until collection.

7.12.2 Ordering consumables

The OV at each abattoir is responsible for ensuring that there are sufficient supplies of consumables for packing samples. It is important that only the specified packaging materials (such as pots and labels) are used as failure to do so may result in the sample being un-assayable at the lab.

The consumables must be ordered directly from APHA Weybridge by using the following procedure:

1. Fill in the requisition form (Annex 8a and 8b)
2. Make sure that you complete all the boxes (establishment name, address, FSS contact name and telephone number, and any others).
3. The requisition form should be emailed to: Storesstockorders@apha.gov.uk.

APHA will endeavour to complete delivery of consumables orders within 7 working days of receipt. If you have any queries regarding an order that you have placed, you should telephone the APHA stores in Weybridge on 01932 359451.

8. Warble Fly

8.1 Warble fly infestation

8.1 Warble fly infestation

8.1.1 Notification

Warble fly is a notifiable disease only in Scotland, as the England and Wales regulations were revoked from 1 April 2015.

Warble fly mainly affects cattle. It can also affect:

- horses
- deer

Warble fly doesn't affect humans.

The last outbreak in Great Britain was in 1990.

If warble fly infestation is suspected in a live bovine animal/carcase, the OV should determine the farm of origin and notify APHA VI.

More official information about warble fly can be found here

Regulation: Warble Fly (Scotland) Order 1982.

8.1.2 Detection in live animal

If it is necessary to slaughter the animal before the arrival of the APHA VI, the carcase and hide, along with the identifying ear tag should be detained for inspection by the APHA VI. 7 ml vacutainer sample of clotted blood should be collected by the OV at slaughter.

Note if specific 7ml vacutainer is not available any other sampling container would be sufficient.

8.1.3 Detection in carcase

In the case of infestation detected at post-mortem examination, the carcase and hide, along with the identifying ear tag should be detained for inspection by APHA VI and an attempt should be made to collect any blood that may still be present in the carcase (such as in the heart or great vessels).

If the OV finds a suspect, then this would be a report case and APHA VI will come out to do the sampling and submit through an EXD36.

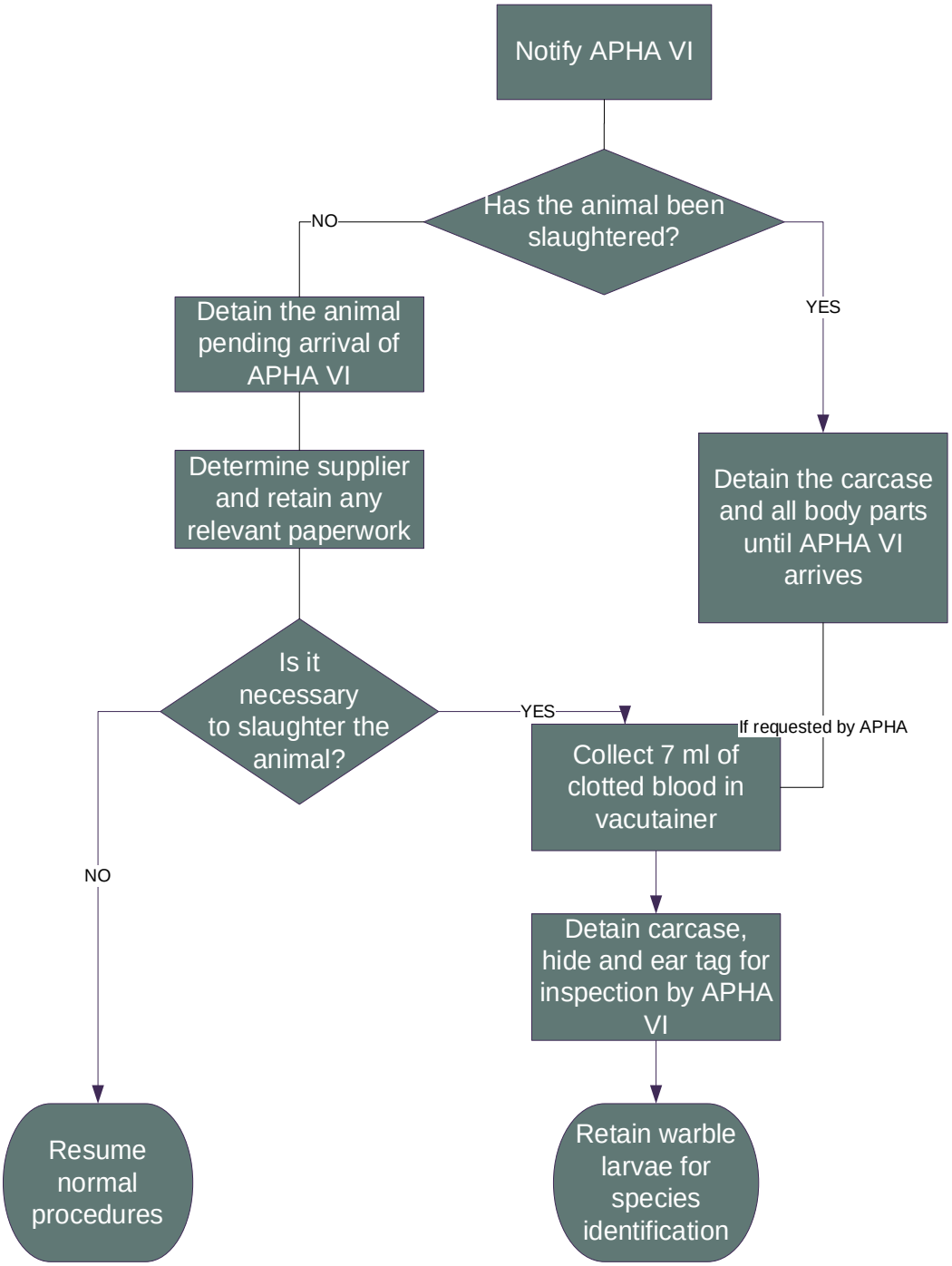
Where warble lesions due to Hypoderma bovis/H.lineatum are suspected, samples of whole larvae should be collected using a scalpel blade or similar sharp instrument; lesions under the skin should not be expressed to avoid damaging the larva. Maximum of three larvae from each affected animal should be collected and put into a Universal Bottle containing alcohol (either 70 per cent ethanol or methylated spirit). The samples must be sealed and packaged in leak-proof containers.

8.1.4 Larvae retention

Any warble larvae should be retained for species identification.

8.1.5 Procedure

The following flow chart outlines the procedure to follow if the OV suspects a Warble Fly infestation.


Notify APHA VI
Has the animal been slaughtered?
NO
YES
Detain the animal pending arrival of APHA VI
Determine supplier and retain any relevant paperwork
Is it necessary to slaughter the animal?
YES
NO
Detain the carcase and all body parts until APHA VI arrives
If requested by APHA
Collect 7 ml of clotted blood in vacutainer
Detain carcase, hide and ear tag for inspection by APHA VI
Resume normal procedures
Retain warble larvae for species identification

9. Avian Influenza

9.1 Introduction

9.2 Controlled Zones

9.3 Designation of Slaughterhouses

9.4 Movement licences for poultry to slaughter

9.5 Production of poultry meat

9.6 Enforcement Responsibilities

9.1 Introduction

9.1.1 Avian Influenza Outbreak

Avian influenza (AI) (bird flu) mainly affects birds. It can also affect humans and other mammals. AI viruses can be classified according to their ability to cause severe disease (pathogenicity) in birds as either highly pathogenic or low pathogenic. Highly pathogenic avian influenza viruses (HPAI) can cause severe disease in susceptible birds and low pathogenic avian influenza viruses (LPAI) generally cause mild disease or no clinical signs at all. Both HPAI and LPAI are notifiable animal diseases.

More official information about AI can be found here.

Before the confirmation of any outbreak of AI and as preparation, the FBO and the OV should have contingency plans in place which may include the application for the pre-designation of the slaughterhouse for processing birds from controlled zones.
Upon confirmation that AI has been found in poultry, captive and/or wild birds in GB, animal health protection measures are imposed to prevent the spread of disease.
The latest information about the AI situation in UK, including the “Rules on meat produced from poultry and farmed game birds originating in Protection Zone(s)” and applicable general licences for meat can be found here.

Pictures of clinical signs of avian influenza are available here.

9.1.2 Regulations:

The Avian Influenza and Influenza of Avian Origin in Mammals (Scotland) Order 2006

The Avian Influenza (Slaughter and Vaccination) (Scotland) Regulations 2006

The Avian Influenza (Preventive Measures) (Scotland) Order 2007

The Avian Influenza (H5N1 in Poultry) (Scotland) Order 2007

The Avian Influenza (H5N1 in Wild Birds) (Scotland) Order 2007

9.2 Control Zones

Control zones may be declared around the place(s) where birds have been found to be infected with notifiable AI virus. Those zones are classified as follows:

- **Protection Zone (PZ)** (or wild bird control area or wild bird protection zone, under the Wild Bird Order): a ring with a radius of at least 3 km around the point where high pathogenic AI virus has been confirmed.
- **Surveillance Zone (SZ)** (or wild bird monitoring area or wild bird surveillance zone, under the wild bird Order): a ring with a radius of at least 10 km around the point where high pathogenic AI virus has been confirmed and including the PZ.
- **Restricted Zone (RZ)**: a ring around the SZ that separates the SZ from the Free Area.
- **Low Pathogenic Restricted Zone (RZ)**: minimum size of 1 km around the premises where low pathogenic notifiable AI is confirmed.
- **Free Area (FA)**: area outside the PZ, SZ and RZ that is free of notifiable AI. The transport of live birds and meat within this area is allowed without restriction.
- **Vaccination Zone (VZ)** (or emergency vaccination zone or preventive vaccination zone): The Scottish Ministers considers that poultry or other captive birds in this zone should be vaccinated under a preventive vaccination plan or an emergency vaccination notice.
- **Temporary Control Zones (TCZ):** temporary zone with a radius of at least 10 km around the point where AI of the subtype H5 or H7 has been confirmed but not the virus N-type and pathogenicity. These zones are normally used prior to confirmation of pathogenicity. TCZ can also have two separate areas within – TCZ A and TCZ B – which replicate PZ and SZ in terms of size and control measures applicable within.

- **Control Zones (CZ)**: means a protection zone, a surveillance zone, a restricted zone, a low pathogenic avian influenza restricted zone, a temporary movement restriction zone, a temporary control zone, an avian influenza prevention zone, or an avian influenza (restrictions on mammals) zone.

Biosecurity, likely movement controls and veterinary surveillance measures are also imposed within those zones to prevent the introduction of the virus into poultry flocks.

A map showing the extent of PZ, SZ and FA is available here.

The movement of live poultry and other captive birds will be subject to restriction. However, the direct movement for slaughter of poultry is allowed providing the movement takes place under a licence issued by an APHA VI. Whether or not these licences are available will depend on an assessment by APHA/Defra/Scottish Government. These may not be available for premises located in certain zones or for certain species of birds. The requirement for a movement licence applies even where poultry sheds are co-located on the same premises as the abattoir. The zones vary depending on the type of poultry, where the outbreak happens and the type of virus; the decision on zones is made by policy colleagues and essentially by the Scottish Minister.

Full details of movement licences can be found online or by contacting the local APHA office. The movement licence requires the completion of part of it by the OV/AO confirming the slaughtering of all the birds and requires that the FBO returns the completed licence to the APHA licencing team. The OV should monitor that FBO returns the movement licences to APHA without delay. For more information about movement licences please refer to section 9.4 of this chapter. An example of movement licence is available in the Annex 24.

9.3 Designation of Slaughterhouses

9.3.1 Introduction

There is a requirement for slaughterhouses accepting poultry from control zones, or being located within control zones, to be designated if there is an outbreak of avian influenza. The designation will only last during the outbreak, once the outbreak officially ends, the establishment will remain deactivated.

In the case of a new outbreak, the establishments will have to apply for the activation of the pre-designation. Having undergone pre-designation will speed up the activation of any designation.

Annual reviews will be in place as revalidation of the process to ensure standards still meet the requirements of the designated status.

Only approved establishments can be designated. For detailed information about the pre-designation and activation of designation processes please go to Section 9.3.2.

Activation of a designation does not mean that the establishment will be able to receive poultry for slaughter as the movements of poultry will require a licence which will be applied for by the premise of origin owner.

Slaughterhouses will need to be pre-designated/Designated by the FSS and APHA on behalf of Scottish Ministers before receiving and processing poultry from premises within a:

• highly pathogenic AI protection zone

• highly pathogenic AI surveillance zone

• highly pathogenic AI restricted zone

• Low pathogenic AI restricted zone

• vaccination zone

In addition, slaughterhouses situated within a zone subject to movement restrictions must be designated by the FSS to receive and process poultry including those that originate from an area free from disease restrictions.

Designations only apply to slaughterhouses processing farmed poultry, including farmed game birds. There are no controls on meat produced from wild game birds, including those shot within PZ or SZ, except for when H5N1 High Path AI is isolated.

In that case, controls on wild game meat from Approved Game Handling Establishments (AGHE) might be implemented.

Premises in control zones can only send poultry for slaughter to a designated slaughterhouse. Slaughterhouses can apply for one or both of two types of designation:

- Level 1 - To receive and process poultry from premises within a highly pathogenic AI surveillance zone, a highly pathogenic AI restricted zone, or a low pathogenic AI restricted zone (or vaccination zone in Scotland) or, being a slaughterhouse within a zone subject to movement restrictions, to receive and process poultry from premises within an area free from disease control restrictions.
- Level 2 - To receive and process poultry from premises within a highly pathogenic AI protection zone and, therefore, producing restricted meat. A slaughterhouse can apply to receive and process poultry from premises both within and outside a PZ, providing the conditions detailed in the “Application for Designation of a Slaughterhouse” are met.

In order for a slaughterhouse to be designated during an AI outbreak the requirements are as follows:

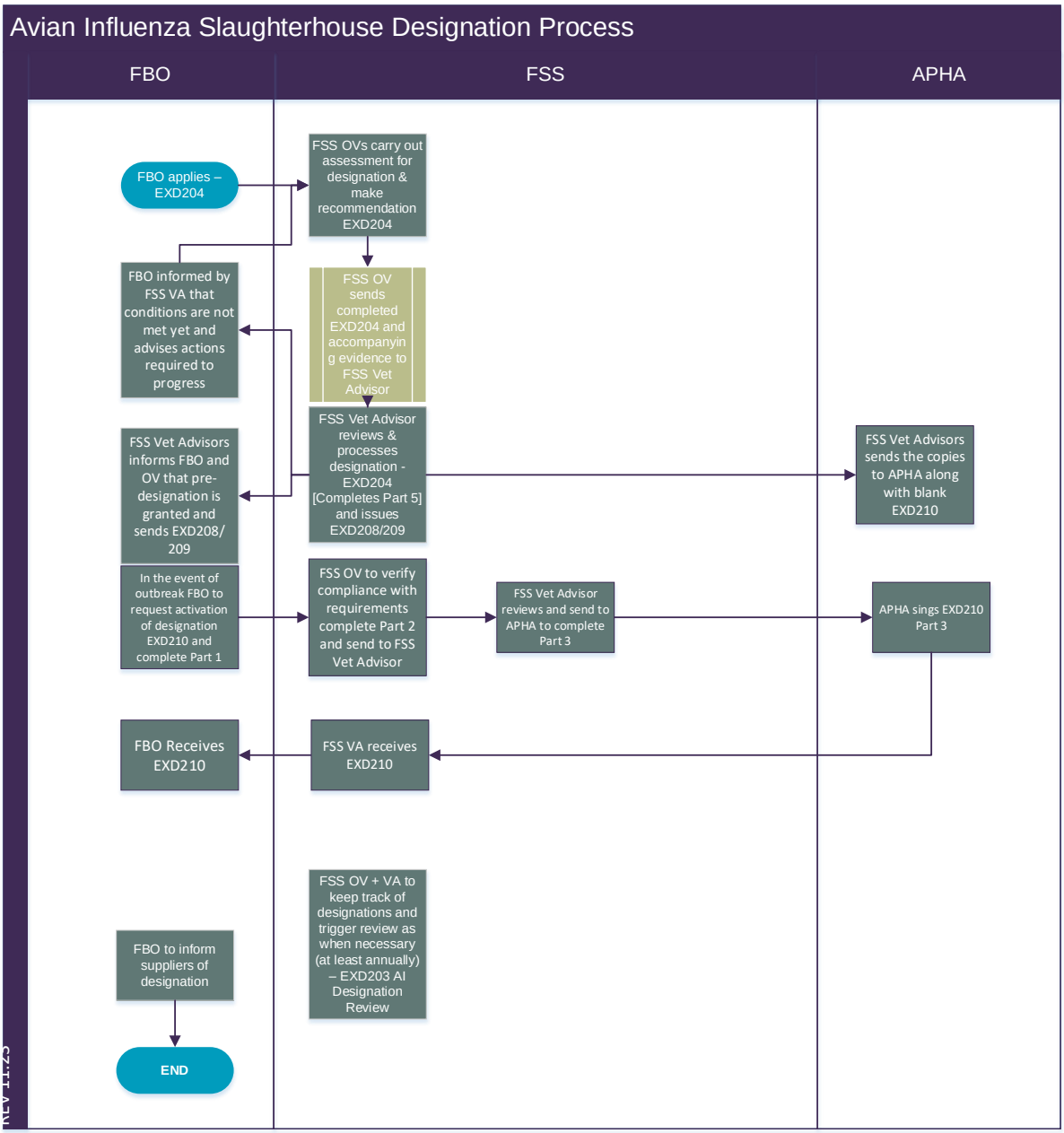
- good standards of traceability, management of throughput and biosecurity.
- training and protocols must be in place to ensure that the conditions can be met in a short time span in the event of confirmed AI.
- FSS OV will carry out the inspection of the slaughterhouse and send the report back to the Vet Advisor who will decide if they comply with the conditions of designation.
- A designated slaughterhouse receiving poultry from a protection zone (PZ) will need to be able to clearly identify meat from these poultry and separate these poultry, in time or space, from those originating from other zones. The protocol must reflect this and the FSS Vet Advisor and the OV must be satisfied that this condition can be met and that there is no risk of disease spread between poultry originating from a PZ and those originating from other zones, or from the free area.
- If the slaughterhouse or supplying premises falls within a controlled zone the slaughterhouse operator must inform the OV on site, complete the AI Activation of Designation (Annex 29) and send it signed to the relevant FSS Vet Advisor

Where the OV is not satisfied that the FBO is complying with the conditions to be designated, they must advise the FBO to correct the deficiency immediately. Where this informal approach is not successful, the OV must contact the FSS Vet Advisor immediately and recommend that the designation is suspended, who will inform the necessary Government department.

There is no legal basis to require compliance with the conditions for designation when there is no confirmed AI in the UK or when neither the slaughterhouse nor supplying premises fall within a controlled zone.

9.3.2 Process of Pre-Designation of Slaughterhouse in Scotland

The process of pre-designation/designation of a slaughterhouse in Scotland in case of AI outbreak is described in the flow chart below.



Application template for AI pre-designation can be found at Annex 25.

Confirmation template for AI pre-designation Level 1 can be found at Annex 26.

Confirmation template for AI pre-designation Level 2 can be found at Annex 27.

AI Activation of Designation form can be found at Annex 29.

Once the designation is activated, the OV and Vet Advisors are responsible to keep track of the designation and trigger a review when required. This must be at least annually or if there are any changes implemented on the process.

The Review Template can be found at Annex 28.

The review of the designation is an internal verification and therefore there is no need to be sent to APHA. Copies of the review form must be saved in the plant folder in SharePoint.

Designation of slaughterhouses located nearby to active poultry farms

Abattoirs, adjacent to an active commercial poultry premises, e.g. a broiler or laying farm, should not be designated, unless enhanced biosecurity measures are implemented as below to prevent the spread of Avian Influenza to nearby farms. Where they achieve designation, these abattoirs will remain designated until the NAD outbreak finishes. At that point their pre-designated status will be removed from Establishments and People Data base.

To evaluate the specific circumstances of each case, it is recommended that a joint visit is carried out by an FSS Vet Advisor and an APHA VI to assess the risks on site and provide advice to the FBO on the key areas where biosecurity needs to be enhanced.

The FBO is then responsible for preparing an SOP to manage these risks. Once the FSS is satisfied with the proposed measures, the designation can be signed off in accordance with the set of conditions/restrictions imposed and detailed in the application for the designation.

In essence, this means that there is scope for each situation to be assessed throughout the duration of the outbreak and treated accordingly on a case-by-case basis, in consultation with the Vet Advisors.

Associated risk factors to be taken into consideration during the assessment of abattoirs with active nearby farms can include (not exclusively):

- Physical separation between the farm and the abattoirs (e.g. fence, different entries, use of different tools and equipment)
- Location/extent/species of the on-farm poultry populations
- Outdoor/free-range/indoor units
- Staff movements
- Pest control (e.g. birds, feral cats, rodents, insects...)
- Geographical factors (e.g. nearby water reservoirs or streams)
- Animal welfare implications on farms associated to the abattoir (e.g. integrated systems)
- Airborne cross-contamination or C&D procedures or Handling and Storage of ABPs.

Please note that the risks associated to Level 2 designations will be higher and a more thorough assessment and SOP might be required.

9.4 Movement licences for poultry to slaughter

9.4.1 Introduction

Movements involving poultry for slaughter from and/or to premises situated within a PZ, SZ or RZ are only allowed under a movement licence issued by an APHA VI or Inspector under the direction of an APHA VI (check licence requirements for details).

Whether these licences are available or not will depend on an assessment by APHA/Scottish Government. These may not be available for premises located in certain zones or for certain species of birds. The requirement for a movement licence applies even where poultry sheds are co-located on the same premises as the abattoir.

Part of the movement licence requires completion by the OV/OA confirming the slaughtering of all the birds and requires that the FBO returns the completed licence to the APHA licencing team. The OV should monitor that FBO returns the movement licences to APHA without delay.

There are three types of movement licence:

- Specific Movement Licence (SL)
- Multiple Movement Licence (ML)
- General Movement Licence (GL) Note: Movements of poultry to an abattoir located within the same farm complex also need to be licenced.

Full details of movement licences can be found online or by contacting the local APHA office of the APHA licensing team at Outbreak.licensing@apha.gov.uk.

The OV or OA must obtain from the FBO a list of all expected farms delivering live birds from PZ, SZ and/or RZ for slaughter 24 hours in advance. On arrival to the slaughterhouse the OV or OA must inspect the movement licence or consignment note to verify:

- the origin of the birds
- that the consignment is intended for that slaughterhouse
- that where the birds originate from a PZ, they are kept separated from other birds

The OV or an OA under the OV supervision must confirm that the birds arriving under a SL have been slaughtered by endorsing the licence presented by the FBO. Where any problems arise relating to live bird movements the OV must contact the local Trading Standards Office and the local APHA office. The OV should verify that the FBO is returning the completed SL to the issuing APHA office.

PIAs are not authorised to carry out Animal Health Official Controls. Only OVs or OAs are authorised to carry out animal health tasks.

9.4.2 Specific Movement Licences (SL)

The movement of poultry from a PZ or SZ is subject to SL. An APHA VI or Inspector under the direction of an APHA VI must examine the birds within 24 hours before they leave the premises of origin. This licence is issued as a single document for each flock (not lorry load) of birds and can only be used once.

The person transporting the birds must comply with the conditions attached to the licence; carry the original (or a copy in the case of multiple loads) with them and produce it on request by a veterinarian inspector or other officer of the Scottish Government. Conditions for movement of live poultry are detailed in the licence and are specific to that individual move. An example of specific movement licence is included in the Annex 24.

9.4.3 Multiple movement licences (ML)

The movement of live poultry from the PZ or SZ to the designated slaughterhouse, or the movement of any poultry to an abattoir located within a control zone may be subject to a Multiple Movement Licence (LM). This licence is issued as a unique document that can be used as many times as necessary between the same premises of origin and destination, and for a limited period as instructed by APHA when issuing the license.

The person transporting the birds must comply with the conditions attached to the licence and carry the original document.

The license and the consignment note must be produced on request by a veterinary inspector or other officer of the Scottish Government on demand and allow a copy or extract to be taken.

Conditions for movement of live poultry are detailed in the licence and are specific to the individual licence.

The license states the total number of moves expected and the total number of birds to be moved on the licence to allow some flexibility between farms, transport and abattoirs depending on available capacity.

One move counts as one 24 hour day (it is not dependent on the number of trucks).

Birds must be inspected by a Veterinary Inspector or OV in the 24 hours before movement. This period relates to the 24 hours before the first truck leaves the origin site.

As long as each movement (day period) of birds has been inspected in the preceding 24 hours before the first truck leaves the origin site then they are complying with the

terms of the licence. This could mean two moves are inspected on one VI/OV visit depending on timings.

9.4.4 General Licence (GL)

These licenses allow on certain instances for the movement of poultry to take place without applying for a specific or multiple licence. The person moving live birds and poultry products under this licence must at all times carry a consignment note.

This licence is not issued as a document, but is published on the Scottish Government website. It is for the person responsible for the transport of the poultry to ensure this movement is covered by the GL and that its conditions are met. In most instances the FCI will normally cover the information required in the GL and can be used as such.

The movement of live poultry between premises situated in the FZ to a slaughterhouse in the FZ does not require a licence.

9.4.5 No licence required

The movement of live poultry between premises situated in the FZ to a slaughterhouse in the FZ does not require a licence.

9.4.6 Summary of movement licence requirements

Movement licences for live poultry to slaughter in a highly pathogenic AI outbreak:

<table>
<tr><td rowspan="2">Birds from</td><td colspan="4">To SH situated in</td></tr>
<tr><td>PZ (3KM)</td><td>SZ (10KM)</td><td>RZ</td><td>FA</td></tr>
<tr><td>PZ (3KM)</td><td colspan="4" rowspan="2">Specific Licence (SL)</td></tr>
<tr><td>SZ (10KM)</td></tr>
<tr><td>RZ</td><td colspan="4">General Licence (GL)* [*This may initially be specific or multiple and is subject to change by Scottish Government</td></tr>
<tr><td>FA</td><td colspan="3">General Licence (GL)* [*This may initially be specific or multiple and is subject to change by Scottish Government</td><td>Licence not required</td></tr>
</table>

Movement Licences for live poultry to slaughter in a low pathogenic AI outbreak:

<table>
<tr><td rowspan="2">Birds from</td><td colspan="2">To SH situated in</td></tr>
<tr><td>RZ</td><td>FA</td></tr>
<tr><td>RZ</td><td colspan="2" rowspan="2">General Licence (GL)* [*This may initially be specific or</td></tr>
<tr><td>FZ</td><td>No licence required</td></tr>
</table>

	multiple and is subject to change by Scottish Government	

Movement Licences for live poultry to slaughter in an H5N1 in a wild bird AI outbreak:

Birds from	To SH situated in		
	PZ (3KM)	SZ (10KM)	FA
PZ (3KM)	Specific Licence (SL)		
SZ (10KM)			
FZ	General Licence (GL)* [*This may initially be specific or multiple and is subject to change by Scottish Government		No Licence required

9.4.7 Movement of meat during outbreak in domestic poultry

The movement of poultry and wild bird meat, minced meat, meat preparations and meat products containing such meat within a PZ, SZ or RZ will be subjected to restrictions as follows:

- meat from poultry originating in a PZ must be restricted meat; the restricted meat or its packaging must bear a special mark which may replace the ID mark and be produced in accordance with the domestic legislation.

The categorisation as restricted meat and special mark also applies to poultry meat from PZ produced between 21 days prior to the estimated earliest infection date

When applied to retail packaging, the size of the mark may vary according to the size

Special mark:

(a) UK – letters 8 mm high

(b) XXXX (where XXXX is the approval number of the premises, as referred to in point 7 of Part B of Section I of Annex II to Regulation (EC) No 853/2004) – numbers 11 mm high

(c) diameter (to outer edge of border) - not less than 30 mm

(d) thickness of border – 3 mm

of the packaging; however, it must be legible to the naked eye.

Only designated slaughterhouses/GHE can dispatch poultry meat from birds originating in the PZ, SZ and RZ.

Also, cutting plants, cold stores and establishments preparing minced meat, meat products and meat preparations situated within the PZ, SZ and RZ can dispatch their products within GB providing the applicable general licence/s are complied with and the raw material has been obtained in accordance with the domestic legislation and is not intended for supply to international trade, including NI.

The special mark must be applied to poultry meat from birds originating from the Protection Zone or its packaging under the direction and control of the FSS.

The term **"restricted meat"** is used to mean:

- meat from poultry originating from a Protection Zone (PZ)
- meat from poultry originating from an area that subsequently became a protection zone and was slaughtered within 21 days of the date estimated by an APHA veterinary inspector as being the earliest date of infection at a premise in the relevant zone
- meat that has not been kept separate from the previous 2 categories
- any meat, processed meat or meat products derived from any of the above that has not been heat treated to a temperature of at least 70°C reached through the entire meat or product

The term **"unrestricted meat"** is used to mean:

- meat from poultry originating outside of a PZ
- meat from poultry originating in an area that subsequently became a PZ but was slaughtered at least 21 days before the date estimated by an APHA veterinary inspector as being the earliest date of infection at a premise in the relevant PZ
- any meat falling into the restricted meat category that has been heat treated to at least 70°C throughout by an approved establishment (in accordance with Article 4 of Regulations (EC) 853/2004) becomes unrestricted meat and can be marked with the oval ID mark

Restricted meat bearing the special mark will be dispatched from designated slaughterhouses/GHE to approved establishments under a general licence issued by Defra.

Level 2 designated slaughterhouses/GHE are required to notify their clients that they have been designated for receiving and processing poultry from premises within a PZ for AI. The FBO must ensure that the customers to whom the FBO is dispatching any restricted meat are fully informed of the requirement of maintaining the special mark

after the meat is cut or processed in the cutting plants and the need of keeping the segregation of the restricted meat from other meat.

As a condition of the designation of the slaughterhouse for Level 2, the FBO must, at least, send communication lines to their clients as per the designation requirements.

The primary purpose of this special mark is to prevent export of the meat or resultant products.

Establishments that intend to further process meat bearing the special mark don't need to be designated. Further process in this context means any activity that removes the special mark from the meat/wrapping/packing. When removed, the special mark will need to be replaced by the new establishment's own special mark all the way down to retail level.

FSS officials in designated slaughterhouses for Level 2 are to check, in particular:

- correct marking (special mark) of the meat obtained from birds originating from the PZ
- separation of special marked meat from oval ID mark meat in cutting establishments
- special marked meat is processed separately from oval ID marked meat
- if special marked meat is mixed with oval ID mark meat, the resulting meat / products must bear the special mark
- special marked meat is wrapped / packed with the special mark of the new establishment where it has been unwrapped / unpacked; the requirements for the correct application of the special mark are equivalent to those for the oval ID mark

When restricted meat is heat treated to at least 70°C throughout in an approved establishment (in accordance with Article 4 of Regulations (EC) 853/2004) to produce unrestricted meat, the HACCP based procedures, document and records – particularly the monitoring records for the heat treatment process and the prevention of cross-contamination must be strictly adhered to.

9.4.8 Hunting ban

Where there is a confirmed outbreak in wild birds the hunting of wild birds may be prohibited in wild bird control area (WBCA) and wild bird monitoring area (WBMA)

Where the confirmed outbreak is in domestic poultry no person shall release game birds in the PZ or SZ.

A shooting ban may be introduced.

9.5 Production of poultry meat

9.5.1 Production of poultry meat from a PZ

Meat from birds originated in the Infected Premises (IP) slaughtered within 21 days of the date estimated as being the earliest date of infection at that premises must be traced and detained. Scottish Government may decide the disposal of that meat.

Meat produced from birds originated in the PZ slaughtered within 21 days of the date estimated as being the earliest date of infection at the IP of that zone becomes restricted meat once the PZ is declared. That meat must be traced for the removal of the oval identification mark and the application of the special mark. The Scottish Government will instruct FSS on the actions to be taken.

Production of poultry meat, minced meat, meat products and meat preparations from healthy birds originating in the PZ can take place in slaughterhouses, cutting plants and other establishments within the PZ, SZ, RZ and/or FZ if:

- the slaughterhouse/GHE is approved and designated and complies with all the designation requirements
- the birds have been transported under a Licence
- the meat is produced in accordance with Regulations (EC) 852/2004, 853/2004 and is subject to official controls under Regulation (EC) 2017/625 and the associated Commission Delegated and Implementing Regulations
- the special mark is applied to the product
- the meat is restricted
- the conditions of the applicable general licence(s) are complied with

Restricted poultry meat and products from healthy birds originating from the PZ can be marketed within the UK with no further treatment. This meat from a PZ will only be supplied for export (intra-community or international trade) if **ALL** of the following conditions are complied with:

- the meat or its packaging is marked with the special mark; this mark identifies them as originating in a PZ

  Note: This special mark is the ID Mark and no additional ID Mark must be applied. When marked with this special mark the product is not eligible for export.
- the product undergoes heat treatment to inactivate any AI virus present
- the oval ID Mark is applied after the treatment has been completed
- the establishment applying the heat treatment and the oval ID mark and follows the conditions of the applicable general licences

Where birds from a PZ are slaughtered and processed, the parts of the slaughterhouse/GHE and the equipment used for the slaughter and processing of those birds must be cleansed and disinfected before other poultry is slaughtered or processed.

Note: Traceability of the meat is a legal requirement in all circumstances. The FBO should be aware that robust internal traceability systems will help to minimize the costs of the required tracing of the meat produced from the PZ before the declaration of the PZ.

9.5.2 Production of poultry meat from SZ and RZ

These restrictions only apply for a highly pathogenic outbreak in domestic poultry.

Production of poultry meat, minced meat, meat products and meat preparations from healthy birds originating in the SZ or RZ, when applicable, can take place in slaughterhouses/GHE, cutting plants and other establishments within the PZ, SZ, RZ or FA if:

- the birds have been transported under a licence
- the slaughterhouse/GHE is approved and designated and complies with all the designation requirements the meat is handled and transported in compliance with the applicable general licence(s).

It is important to note that meat from poultry originating from the SZ or from abattoirs located within the PZ, SZ and RZ, despite being “unrestricted” might still be subject to international trading restrictions. In most instances this meat will be only suitable for trade within GB.

9.5.3 Production of wild feathered game meat from PZ and SZ

Scottish Government may establish restrictions and controls on wild feathered game meat depending on the epidemiology and risk of the outbreak.

For details of commercial and export documentation see the Scottish Government website.

9.5.4 Production of poultry meat from FA

Slaughterhouses within the FA must be designated by FSS on behalf of Scottish Ministers to receive birds that originate within the PZ, SZ, RZ or VZ. Reference: See sub-topic: ‘Designation of slaughterhouses under a domestic poultry outbreak’. Any slaughterhouse/GHE situated within the FA can receive birds that originate within the FZ without any designation.

There are no restrictions to the production of poultry meat from birds originating in the AI FA establishments situated within the AI FA, providing it is produced in accordance with Commission Regulations (EC) 852/2004, 853/2004 and subjected to official

controls and inspection in accordance with Regulations (EC) 2017/625, 2019/624, 2019/625 and particularly 2019/627, and that adequate biosecurity measures are implemented. The oval ID Mark is to be applied.

9.5.5 Production of wild feathered game meat from FZ

There are no restrictions to the production of wild feathered game meat from birds originating in the AI FA in establishments situated within the AI FA, providing it is produced in accordance with Commission Regulations 852/2004, 853/2004 and subjected to official controls and inspection in accordance with Regulations (EC) 2017/625, 2019/624, 2019/625 and particularly 2019/627.

Where the establishment is approved, the oval ID Mark is to be applied.

9.5.6 Animal by-products and waste disposal

ABP produced in slaughterhouses situated within an AI FA must be handled, stored and disposed in accordance with The Animal By-Products (Enforcement) (Scotland) Regulations 2013

Reference: See Chapter 2.8 on 'ABP' for additional information.

Special ABP categorisation and disposal rules apply for ABPs originating from birds from the PZ for Level 2 designated slaughterhouses/GHE/CPs as follows:

- No Cat 3 ABP product is allowed to go into raw pet food production.
- FBO will need a written confirmation from the rendering company that Category 3 ABP material will be subjected to a minimum heat treatment of 70°C.If the FBO does not have this confirmation, Category 3 ABPs from birds originating from a PZ must be disposed as Category 2 ABP or above.
- If Category 3 ABPs from birds originating in the PZ get mixed with Category 3 ABP from birds outside the PZ, the above controls apply to the entirety.

Meat processing establishments handling meat bearing the special mark (birds from PZ) are advised to dispose Cat 3 ABP through a route that involves heat treatment to a minimum of 70°C.

9.5.7 Cleaning and Disinfection (C&D)

Government approved disinfectants must be used in live animal areas in accordance with this list.

FBOs using a detergent and/or disinfectant agent must ensure that they are used as effectively as possible, to the correct concentration as stipulated in the approved disinfectants list and must, in particular, give consideration to the following in deciding which products to use and how to use them:

- the nature of the premises to be cleansed or disinfected

- the type of vehicle or other thing to be cleansed or disinfected
- any instructions from the manufacturer of the product (or of a veterinary inspector) as to pressure, concentration, minimum temperature and required contact time

FBOs must ensure during the Cleansing and Disinfection processes that:

- bedding, litter and faecal matter from transport vehicles are thoroughly soaked with disinfectant if not disposed
- equipment and installations are effectively Cleansed and Disinfected
- the ground, any floors, ramps and walls are washed and Cleansed and Disinfected by thorough brushing and scrubbing

When washing with liquids applied under pressure, recontamination of areas or parts previously cleansed must be avoided.

FBOs carrying out a Cleansing and Disinfection procedure must ensure that a written record of that procedure is made, showing the date and time the procedure took place. Such record must be kept at the premises for a period of 12 months.

Additional FSS checks are required to verify compliance with the C and D conditions attached to the licences: After unloading at the premises of destination, the parts of the vehicle used to transport (including crates and equipment) anything which might be contaminated with mud, slurry, animal faeces, excretions, feathers or any other similar matter must be cleansed and disinfected on site.

FSS staff must carry out 100% checks of C and D of crates, modules and vehicles used to transport birds originating from a PZ and/or SZ and of all the crates, modules and vehicles if the slaughterhouse is located in a PZ or SZ

The Transport of Animals (Cleansing and Disinfection) (Scotland) Regulations 2005 (legislation.gov.uk)

Additional FSS staff may be required to perform those checks. A reminder of some important areas to be considered:

- Birds in the sheds/crates/modules must have no access to the abattoir area. There should be no poultry freely roaming within the curtilage of the abattoir. Welfare standards must be maintained.
- The hard standing area used for the C and D of the livestock transport must be maintained clean and free of animals/vermin/pets. This area must be C and D before commencing operations if necessary and other vehicles should not have access to this loading area for the duration of operation as a designated establishment.
- In the case of animals transported in a container, the interior of the container shall be cleansed whether or not it is soiled, and the exterior of the container and any

parts of the means of transport carrying the container shall be cleansed if they are soiled.

The wheels, mudguards and wheel arches of the means of transport shall be cleansed whether or not they are soiled and whether or not the animals were transported in a container.

- Every part of a means of transport required to be cleansed shall also be disinfected. The abattoir must be clean prior to commencing killing. Naturally vermin, wildlife (including wild birds) and poultry should not have access to the abattoir to avoid transmission of undetected disease.

No additional FSS cleansing and disinfection checks are required for the transport of birds that originate from the RZ and FA. However, the FBO must maintain high standards of C&D of all crates, modules and vehicles.

Disinfection procedures (Level 2 designations only):

Manure and used bedding must:

- be steam treated at a temperature of at least 70°C
- be destroyed by burning
- be buried deep enough to prevent access by wild birds and animals
- be stacked to heat, sprayed with disinfectant and left for at least 42 days

Slurry must be stored for at least 60 days after the last addition of infectious material unless (in the case of slurry which has been treated in accordance with a VIs instructions) a VI authorises a shorter storage period.

Manure, litter and bedding which may be contaminated may, if licenced by an APHA VI, be moved to:

- a treatment plant carrying out procedures for the destruction of AI virus
- storage prior to destruction
- such other place as the VI may license.

The transport of such manure, litter or bedding must be in closed, leak-proof vehicles or containers and in accordance with an APHA's VI instructions.

9.6 Enforcement Responsibilities

9.6.1 Enforcement of licence requirements

The LA is the enforcing authority for movement controls.

FSS staff are authorised to verify compliance with the conditions of the licence. Any suspected NC must be reported to the LA Trading Standards Department and the local APHA office.

9.6.2 Enforcement of C and D requirements

Additional FSS checks are required to verify compliance with the C and D conditions attached to the licences.

In accordance with the Transport of Animals (Cleansing and Disinfection) Scotland (2005) Order, FSS staff must carry out 100% checks of C and D of crates, modules and vehicles used to:

- transport birds from a PZ or SZ
- transport birds to a slaughterhouse situated within a PZ or SZ

Where C and D is unsatisfactory, FSS AOs to report the incident to the LA.

9.6.3 Enforcement of AI designation requirements

Where the OV is not satisfied that the FBO is complying with the conditions under which they were designated, they must advise the FBO to correct the deficiency immediately. Where this informal approach is not successful, the OV must contact the FSS Vet Advisor immediately detailing the reasons why the establishment does not meet the requirements and recommend that the designation is suspended. The FSS Vet Advisor will inform the FBO and relevant Government departments.

10. African and Classical Swine Fever

10.1 Introduction

10.2 SF controls related to Protection Zone and Surveillance Zone

10.3 Designation of slaughterhouse in case of SF outbreak

10.4 Preparedness

10.5 Meat Controls

10.6 SF Slaughterhouse/GHE case

10.7 SF Farm case

10.8 Enforcement Responsibilities

10.1 Introduction

African swine fever virus (ASFV) is a DNA virus and is the causative agent of African swine fever (ASF). Classical swine fever virus (CSFV) is a positive-sense single-stranded RNA virus (ssRNA(+)) and is the causative agent of classical swine fever (CSF).

Both CSFV and ASFV exclusively affect pigs (Suidae) (including domestic pigs and wild boar) and are collectively referred to as the ‘swine fevers’.

All pigs are susceptible to CSFV and ASFV regardless of whether they are kept or feral, however the risk of infection and control measures applied to kept and feral pig populations do vary.

Neither CSFV nor ASFV are known to have any health impact for people.

ACF and ASF are notifiable diseases of animals. The domestic legislation requires that any person who suspects that a domestic or feral pig or carcase is infected with the disease must immediately notify the appropriate authority through Animal and Plant Health Agency (APHA). Animals of the Suidae family including pigs and wild boar are susceptible to **Swine Fevers (SF)**.

These viruses produce similar clinical signs and impact on pig health. They are, however, caused by different viruses with different incubation periods and different underlying science. The steps to control both diseases are very similar.

ASFV has never been detected in the United Kingdom (UK). CSFV was eradicated from GB in 1966, with occasional outbreaks subsequently being contained and eradicated. The last UK outbreak occurred in 2000.

ASFV and CSFV can be spread through:

• Direct contact with infected pigs, faeces, genetic material or body fluids;

• Indirect contact via fomites such as equipment, vehicles or people who work with pigs moving between pig farms with ineffective biosecurity

• Pigs eating infected pig meat or pig products. Both ASFV and CSFV can survive in meat and pig products including frozen and cured products for several years

Aerosol routes are not thought to be a major mechanism of spread for ASFV or CSFV although these have been shown to occur experimentally.

It is possible that ASFV or CSFV can be spread over short distances via mechanical vectors (an animal, for example, a large biting fly or scavengers that can carry a pathogen from one host to another without being infected itself).

In addition, ASFV can be spread by biological vectors (an animal which becomes infected in whose body the pathogenic organism develops and multiplies before being transmitted to the next host), in particular soft ticks of the genus Ornithodoros. Current evidence suggests there are no known competent vectors for ASFV in the UK.

Offspring of CSFV-infected sows can become infected in the uterus and can shed the virus for months after birth.

Both ASF and CSF can occur in acute, chronic and mild forms. The acute form can cause severe disease from which the majority of affected pigs die.

The clinical signs of CSF are very similar to ASF and the two diseases can only be differentiated by diagnostic tests.

The latest information about ASF in UK can be found online.

The latest information about CSF in UK can be found online.

Pictures of clinical signs and lesions of ASF are available online.

Industry guidance on cleansing and disinfection of vehicles transporting pigs are available online.

Regulation:

The Diseases of Swine Regulations 2014

Animal Health Act 1981 as amended by the Animal Health Act 2002

The Products of Animal Origin (Disease Control) (Scotland) Order 2008

The African Swine Fever (Import Controls) (England and Scotland) Order 2022

The Classical Swine Fever (Scotland) Order 2003 (legislation.gov.uk)

The Diseases of Swine Regulations 2014 (legislation.gov.uk)

The Disease Control Strategy for African and Classical Swine Fever in Great Britain describes how government and others would manage an outbreak of either ASF or Classical swine fever (CSF) in Great Britain (GB) and is available online.

Definitions:

In relation to SF controls, the applicable legislation defines:

- "Designation of premises, slaughterhouses and game handling establishments": The Scottish Ministers may designate any establishment or premises for the purposes of slaughtering animals, or cutting, preparing, processing, packing, wrapping, storage or treatment of meat.
- During an outbreak, the animals and other potentially infectious material (for example, manure, restricted meat, animal by-products) would be moved under specific or general licences.
- A person moving any pig under the authority of a specific licence must: carry the licence or a copy of it at all times during the movement; and on demand by an inspector or other officer of the appropriate authority, produce the licence or a copy and allow a copy or extract to be taken.
- A person moving any pig under the authority of a general licence must at all times during the movement, carry a document containing details of what is being transported, including the quantity; the date of the movement; the names of the persons responsible for the pig or other potential infectious material being moved at the place of departure and the place of destination; the addresses of the place of departure and the place of destination; on demand by an inspector or other officer of the appropriate authority, produce the document and allow a copy or extract to be taken; and keep the document for at least six months.
- A "restricted animal" is an animal of a species susceptible to SF which is at, in or from:
  - suspect premises

- an establishment where a disease is suspected
- infected premises
- an establishment where a disease is confirmed an infected area
- a protection zone, or
- a surveillance zone.

- "Restricted meat" is meat, including meat that has come into contact with meat produced on or after the date that a protection zone or a surveillance zone is declared, or an earlier date where the Scottish Ministers specify such a date for the purpose of disease control from a restricted animal. Where restricted meat has been treated in accordance with the relevant legislation at a treatment centre it ceases to be regarded as restricted meat.

10.2 SF controls related to Protection Zone and Surveillance Zone

After the confirmation of ASF/CSF, control zones will be established around the Infected Premises (IP):

- The Protection Zone (PZ) will centre around the IP with a minimum radius of at least 3 km.
- The Surveillance Zone (SZ) will centre around the IP with a radius of at least 10 km. The PZ will be found within the SZ.

A decision to make zones larger will be taken based on epidemiological advice, the local industry structure and density of the industry and the wider disease control benefits weighed against consideration of the practical implications and costs of managing larger zones.

10.2.1 Movement Restrictions

Initially pigs cannot be moved off or onto premises in the PZ or SZ. Pigs may be moved within a premises as long as they do not cross a public or private road. Derogations are unlikely to be available in the period following declaration of the zones.

Over time the disease situation stabilises and confidence in the situation in that area increases, although there will remain some uncertainty about the disease situation. In this phase, the government will start to consider requests for movements. It will assess the level of risk presented by each type of movement requested and what conditions can be set to mitigate any remaining risk of disease spread.

The government will coordinate decisions on the principles of what restrictions may be eased through licensing and may start to consider the case to allow limited movement of pigs off premises in the PZ or SZ:

- for immediate slaughter in a designated slaughterhouse
- to other premises within the same zone due to welfare problems
- for culling and movement of the carcase to a rendering plant for processing
- pigs may be licensed from outside the control zones onto premises within zones.

APHA may license the movement of a pig from outside the surveillance zone (SZ) to a designated slaughterhouse/GHE within the zone (SZ) for immediate slaughter provided that the vehicle transporting the pig is thoroughly cleansed and disinfected at the slaughterhouse after the pig has been unloaded. The licence may be granted by an APHA veterinary inspector (VI) to allow movement of a pig after the expiry of the relevant period specified in the legislation, if the pig is transported directly to a designated slaughterhouse, the APHA VI has individually inspected the pigs on the premises of origin, samples have been taken and the pigs are transported in a vehicle sealed by an APHA VI.

APHA may license the movement of a pig from outside the protection zone (PZ) to a designated slaughterhouse inside the zone for immediate slaughter provided that all conditions in the licence are followed. The licence may be granted by APHA VI only after the expiry of the relevant period specified in the legislation.

Trucks and vehicles that have carried live pigs or other livestock or material which may be contaminated with ASF virus are prohibited from leaving premises in the PZ/SZ unless they have undergone cleansing and disinfection (C&D). In the PZ, C&D of such vehicles must be inspected and authorised by an APHA VI.

10.2.2 Operation of meat establishments within the PZ/SZ

Pig slaughterhouses and GHE located in the PZ/SZ would need to be designated for being able to operate during the outbreak. Pre-designation of the slaughterhouses before the outbreak would facilitate the designation when required.

The movement of pigs from outside the PZ/SZ to a slaughterhouse located within the zones may be licensed from early in the outbreak as the movement is from a low disease risk area to a slaughterhouse for immediate slaughter.

Slaughterhouses operating within a control zone must be designated. There is no requirement to control meat plants or other places receiving carcases or meat from animals originating outside the PZ/SZ slaughtered within the PZ/SZ.

The practice of allowing C&D of vehicles away from the slaughterhouse will be suspended in these circumstances and they must fully C&D prior to leaving the slaughterhouse.

Cutting plants located in within the PZ/SZ do not need to be designated for SF unless they are accepting restricted meat.

However, when applying for pre-designation of an abattoir/GHE with co-located cutting plant, this must be included in the application.

10.2.3 Operation of establishments outside the PZ/SZ

Pigs originating outside the PZ/SZ and slaughtered at a slaughterhouse outside the PZ/SZ will not be subject to any additional controls, save any imposed in wider movement restriction or other control zones. There is no requirement for the slaughterhouse to be designated or for the meat to be controlled or (heat) treated.

The practice of allowing C&D of vehicles away from the slaughterhouse may be suspended if the disease situation requires.

Slaughterhouse located outside the PZ/SZ may be designated for processing pigs from the PS/SZ. Once pigs originating from within the PZ/SZ can be licenced to slaughter they must go to a slaughterhouse designated to slaughter animals from the PZ/SZ. Ideally the slaughterhouse will be located within the PZ/SZ, but regardless of location it must be designated.

Cutting plants and treatment establishments accepting restricted meat must be designated for ASF.

10.2.4 Operation of GHE

On confirmation of disease in feral pigs, the appropriate authority may declare a feral pig control zone (FPCZ).

Meat from a feral pig hunted in any FPCZ that are confirmed free of swine fever by testing, would be controlled, specially marked and treated (heat-treated) prior to being allowed to enter the food chain.

GHE accepting feral pigs located in the FPCZ or receiving bodies from that area have to be designated.

10.2.5 FBO/FSS Duties

FBO Duties	FSS Duties
FBO at a meat establishment must prevent the acceptance of restricted animals/meat unless the establishment has been granted with a designation for ASF/CSF	OV to ensure that all pigs accepted for slaughter: • In the case of pigs from outside the PZ/SZ, the conditions of the general license have been complied with. • In the case of pigs from PZ/SZ, the conditions of the specific licenses have been complied with and they have been accepted into a

	slaughterhouse designated for ASF/CSF. • In case of slaughterhouses/GHEs located within or receiving pigs from PZ/SZ, the slaughterhouse/GHE is designated for that outbreak of SF. A pre-designation does not qualify the slaughterhouse for receiving animals from PS/SZ. OV should discuss with the FBO the need of pre-designation and/or activating the designation for being able to operate and provide advice on the application process.
Upon confirmation of an ASF/CSF outbreak in Great Britain, the FBOs should enhance their Food Chain Information (FCI)/Hunter declarations controls and establish procedures for ensuring that movement rules are observed by the pig suppliers and lorries transporting pigs to the slaughterhouse.	OV should complete any endorsement as required by the movement licensing, as appropriate and ensure the instructions of the movement licence are followed.
Potential slaughtering of restricted pigs from control zones in non-designated slaughterhouse/GHE is a breach of the legislation and will involve withdrawals/recalls and production disruptions	
Specific movement licenses accompanying the pigs may require countersigning by the FBO slaughtering the pigs and/or the OV of the establishment. FBO should read and act upon the instructions provided in the movement licences.	Report to LA any movement requirement breach. Inform the FSS Vet Advisor. When any breach in the movement licence conditions has been committed by the FBO of a designated slaughterhouse/GHE, the request of a suspension of the designation should be considered by the OV in liaison with the Vet Advisor.

When the vehicle transporting the pigs has been sealed by APHA, the FBO must request the presence of the OV for verifying the unsealing of the vehicle	The OV must verify the APHA unsealing of the vehicle
Ensure manure or slurry, including digestive tract contain, from pig origin must not be transported or spread unless that it is done under a licence granted by an APHA VI.	On confirmation of an ASF/CSF outbreak in GB, when a pig slaughterhouse/GHEs is predesignated, the OV should review and verify the compliance with the designation conditions for being able to recommend or not its designation and advice the FBO of any identified shortcoming which would need to be corrected before the FBO can apply for the designation.
	When inspecting cutting plants during an outbreak, the inspector must ensure that pig carcases and pig meat bear a valid health mark or identification mark. Meat bearing crossed health marks or crossed identification marks must not be in cutting plants which have not been designated for ASF/CSF

10.3 Pre-designation/Designation/Activation of Designation of meat establishments in case of SF outbreak

During an outbreak of SF, the following designation requirements apply:

- Slaughterhouses/GHEs (including any co-located cutting plant) accepting susceptible animals from PZ/SZ (or Feral Pig Investigation or Control Zones) would need to be designated.
- Slaughterhouses located in PZ/SZ would need to be designated.

- Cutting plants accepting restricted meat must be designated for that.
- Treatment establishments receiving restricted meat for SF treatment must be designated.

The pre-designation process allows the FBO to be prepared to apply for a designation in the case of an outbreak and will make the designation process quicker. For further information regarding preparedness please refer to section 10.4 of this chapter.

Animal By-Products from restricted animals must be categorised as Category 2 material (category 1 material if originated from wild animals). Any other animal by-product contacting directly or indirectly those products or meat from restricted animals must be categorised as Category 2 material as well.

10.3.1 Pre-designation process in peace-time

The aim of the pre-designation process is to allow the FBO and the resident FSS officials to be prepared in advance of applying for the activation of designation if needed during an outbreak and for speeding up the designation process during an outbreak.

FBOs of slaughterhouses, GHEs, cutting plants and treatment establishments may apply for a pre-designation for ASF anytime. If the pre-designation is granted, on request of the FBO, the designation may be subsequently activated during an outbreak.

A site approved for several co-located activities (slaughter, cutting, processing) under the same approval number would require pre-designation /designation for each activity.

FBO requiring pre-designation should contact the FSS OV who will then forward the application to FSS Veterinary Advisor for the area. In case of standalone CPs the application should go directly to the FSS Vet Advisor for the area. The assessment will then be carried out by the FSS Vet Advisor or an allocated OV.

Swine Fever Pre-Designation application form can be found at Annex 30.

10.3.2 Designation process during SF outbreak

FBOs of pre-designated establishments will require the activation of the designation after verifying that all the information included in the pre-designation form remains accurate and the requirements will be complied with.

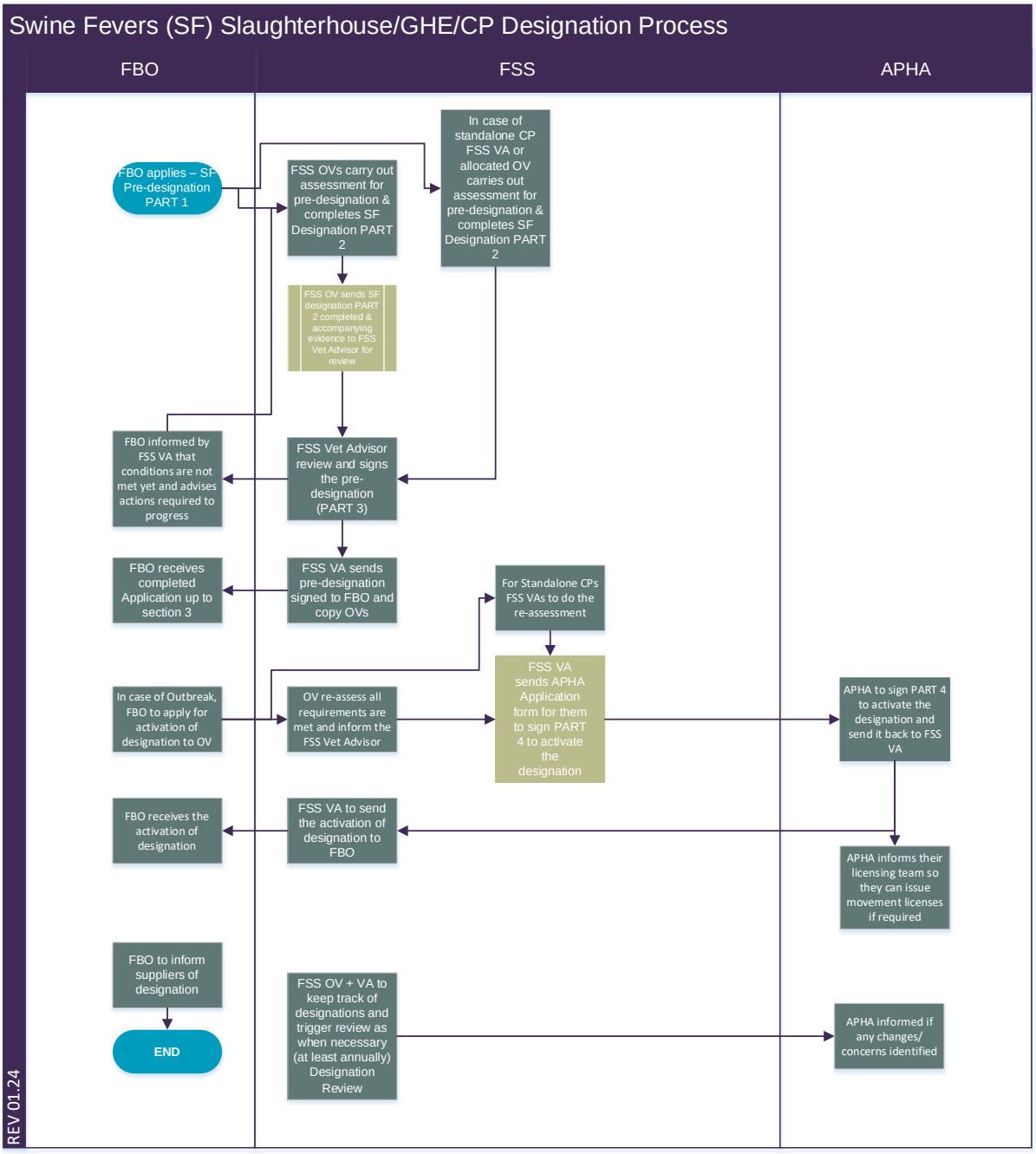
Activation of pre-designations cannot be granted unless there is an officially confirmed outbreak and SF restrictions are in place. The pre-designation does not guarantee the activation of designation.

Establishments which are not pre-designated at the time of the outbreak can apply for a designation. However, the designation process may take longer than in the case of already pre-designated establishments.

During a SF outbreak, FBO of pre-designated establishment requiring activation should contact the FSS OV on site or the Vet Advisor in case of standalone CP to request the activation of the designation.

FBO of other establishment requiring designation should contact the FSS OV who will inform FSS area Vet Advisor.

Designated slaughterhouses/GHEs located within a Protection Zone may require additional approval from Scottish Government for operating.



10.3.3 Regionalisation

In addition to the controls related to PZ and SZ, regionalisation may be implemented as part of the ASF controls.

Regionalisation is allowed at international level for the handling of outbreaks of ASF while reducing the impact of ASF outbreaks in international trade. The legal basis for regionalisation or zoning is in the World Trade Organisation (WTO) – World Organisation for Animal Health (WOAH) is in Article 6 of the Sanitary and Phytosanitary (SPS) Agreement and chapter 4.3 of the OIE Terrestrial Animal Health Code.

The WOAH defines zone/region as a clearly defined part of a territory containing an animal subpopulation with a distinct health status with respect to specific disease for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade.

Regionalisation is applied in the European Union for the management of the ASF outbreaks in its member states. The Implementing Decision 2023/594/EU establishes the criteria for demarcating Parts I, II, III and IV subjected to specific restrictions in relation to animals, meat and by-products:

Part IV: occurrence of ASF in both domestic pigs and wild boar. The disease control presents specific challenges due to the systemic and high level non-compliance by stakeholders with the relevant EU requirements, in particular in relation to identification, registration and traceability of pigs and there are certain difficulties for the veterinary authorities to ensure the conformity with those requirements.

- Part III: occurrence of ASF in both domestic pigs and wild boar.
- Part II: occurrence of ASF only in wild boar.
- Part I: higher risk area with no cases, nor outbreaks, of ASF and where higher surveillance (in particular passive) is applied adjacent to a Part II, III or IV.

The restrictions relevant for meat controls applied to the parts can be summarised as:

- Live pigs cannot be dispatched from Parts II, III or IV.
- Pig meat, pig meat preparations and pig meat products cannot be dispatched from Parts III or IV.
- Animal by-products from porcine animals cannot be dispatched from Parts III or IV.

10.4 Preparedness

10.4.1 FBO Preparedness

All FBOs handling or processing pigs, wild boars or their meat should be encouraged to be prepared for the possibility of an SF outbreak affecting GB. This preparation should include:

- the implementation of enhanced biosecurity standards in the premises
- the establishing of procedures for minimizing the impact of a potential withdraw/recall
- the establishing of procedures for the adequate handling of restricted meat.

FBO must provide the required facilities and equipment for the cleansing and disinfecting of vehicles transporting pigs on site and any restricted meat. FBO should promote and supervise the adequate implementation by drivers of the sequence of stages for dry-cleaning, washing and disinfection using disinfectant authorised under

the general order as required by the legislation and the good practices promoted by the industry which can be found online.

FBO should establish a cleaning schedule and a documented procedure for the frequent and effective cleansing and disinfection of lairages, animal by-product areas and associated areas and implements.

FBO should clearly define the batches, establish robust internal traceability of meat at slaughterhouses, GHEs and cutting plants and implement an adequate cleansing and disinfection of the food contact surfaces between batches (for example, by using cleaning with detergent followed by use of effective food-grade disinfectant effective against the virus following their manufacturer instructions and using adequate concentration and contact time).

Further guidance for traceability and preparedness for recalls/withdrawals is available at Withdrawals and recalls guidance | Food Standards Scotland.

FBO should consider applying for a pre-designation for SF, which would improve their preparedness and speed up the designation process in case of SF outbreak.

FBO should schedule the arrival of animals for allowing their slaughter, in peacetime, within 48 hours of arrival and, when possible, the day of arrival. The schedule for arrival of animals and slaughtering should allow the adequate cleaning and disinfecting of lairages ensuring the adequate contact time for the disinfectants to act and their rising and/or drying as per manufactures instructions for preventing the risk of residues from disinfectants in the meat.

Slaughterhouses are animal holdings and therefore, the FBO's slaughterhouses have a responsibility to prevent animal diseases. General guidance for animal diseases prevention including biosecurity measures, staff and visitor's controls, buildings, equipment and vehicles controls are available at Disease prevention for livestock and poultry keepers - GOV.UK (www.gov.uk).

10.4.2 FSS team preparedness

The OV at pig slaughterhouses and Game Handling Establishments processing wild boars should discuss regularly with the FBO their preparedness for SF outbreaks.

When the establishment has been designated for SF, the OV should review the pre-designation at least once a year, using the opportunity for providing advice for improving the FBO preparedness and reviewing FSS team preparedness including awareness and procedures in place.

The designation review form can be found at Annex 31.

The OV must ensure compliance with necessary biosecurity measures.

The FSS team can improve the preparedness for an SF outbreak by:

- Being able to identify the signs of SF infection at the ante-mortem and port-mortem inspection and the reporting procedures to APHA on suspicion of notifiable diseases.
- Applying strict biosecurity practices such as:
  - Comply with FBO's biosecurity procedures.
  - Ensure a good separation of personal clothing and protective clothing using designated changing areas.
  - Eat only in designated areas separated from protective clothing and inspection equipment.
  - Use dedicated protective clothing in the lairage and yards.
  - Comply with the FSS procedures in relation to PPE, particularly:
    - Staff must not take protective clothing home for laundering. If overalls need to be transported to another site for laundering, they should be placed in special bags for transport and then placed directly into laundry bin. Those special bags are available from procurement.
    - When carrying out ante-mortem inspection, non-white coats may be worn with waterproof over trouser or leggings. Coats must not be taken outside the establishment and must be sent to laundry as per other protective clothing. Waterproof over trouser/leggings must be disinfected with an approved disinfectant.

- Arrange systems for the frequent change or/and disinfection of the protective clothing used in the lairage, yards and animal by-product areas.
- The use of disposable PPE may be considered particularly during an outbreak when dealing with restricted animals or meat. When used, the disposal must be established observing good biosecurity practices.
- Use of designated parking.
- Ensure robust cleaning and disinfection practices for the PPE and tools.
- Ensure a safe handling, storage and dispatching of dirty protective clothing.
- Plan a suitable system for overcrossing the Health Mark in case of being necessary during the outbreak.

10.5 Meat Controls

10.5.1 Meat controls

Meat produced from pigs originating from the PZ/SZ (regardless of where they were slaughtered) is termed "restricted meat". Such meat receives a special mark (a crossed through oval health mark) and cannot be sold fresh. It must be treated at a designated treatment centre and prior to treatment only handled at designated premises.

Note: “Restricted meat” is meat, including meat that has come into contact with meat produced on or after the date that a protection zone or a surveillance zone is declared, or an earlier date where the Scottish Ministers specify such a date for the purpose of disease control from a restricted animal. **Where restricted meat has been treated in accordance with the relevant legislation at a treatment centre it ceases to be regarded as restricted meat.**

In some circumstances Third Countries may require the implementation of additional safeguard measures that apply to pigs, pork and pork products produced within the UK or a region of the UK. Should this happen, additional measures, such as special marking and trade restrictions may be imposed. Where a special stamp is proposed to indicate meat is restricted to the domestic market, it is likely a round stamp will be adopted.

It is paramount that “restricted meat” is continuously and robustly identified, separated and clearly marked with crossed identification mark or crossed health mark and that its traceability is thorough and consistent at all the stages.

Any risk of direct or indirect cross-contamination from “restricted meat” to other meat must be prevented.

The legislation requires that records related to “restricted meat” must be kept for 3 years from the date of slaughter, movement or treatment.

The FBO must not place on the market or export any “restricted meat”.

10.5.2 Animal by-products control

All the animal by-products generated from “restricted animals” or “restricted meat” and any by-product contacting directly or indirectly with them must be categorised as category 2 material (category 1 material if originated from wild animals).

Category 2 material must be stored and dispatched in closed leak-proof containers, observing adequate biosecurity practices.

Containers of category 2 material must be cleansed and disinfected immediately after its use.

When the establishment is located in a restricted area or has been handling restricted meat, the disinfection of the containers should be carried out using an approved disinfectant at the appropriate concentration.

Manure, litter and slurry including digestive tract contain from designated slaughterhouses can only be dispatched under a special licence issue by APHA.

The yards and the animal by-products handling and storage areas must be kept clean and, when necessary, disinfected.

10.5.3 Marking of restricted meat

Restricted meat must be marked with a specific Health Mark/Identification Mark which is Health Mark or Identification Mark over-stamped with a diagonal cross. This can be:

- a diagonal cross, superimposed on the health mark or identification mark applied under article 5 of Regulation (EC) No 853/2004 laying down specific hygiene rules for food of animal origin, or;
- a health mark oval stamp, 6.5 cm wide and 4.5 cm high with two straight lines crossing at the centre of the stamp in such a way that the information of the Health Mark is not obscured.

10.5.4 Movement of restricted meat

Restricted meat can only be moved or dispatched:

- From designated slaughterhouses/GHEs to designated cutting plants. When the cutting plant is collocated, it requires a separate designation and the movement records between the slaughterhouse and the cutting plant must be kept.
- From designated slaughterhouses or designated cutting plants to designated treatment establishments.

Movements of restricted meat must be reduced to the minimum and re-dispatching of restricted meat is not allowed.

Freezing of restricted meat should not be carried out. The restricted meat must be treated without delay. Once it has been treated in a designated treatment centre, the meat product may be frozen as it will not be restricted any more.

The movement of restricted meat must be carried out preventing any risk of contamination from the restricted meat to other products or the environment during the handling, loading/unloading and transport.

The commercial document accompanying the meat must clearly state that the meat is “restricted meat”. Any person who is in possession of restricted meat must make records of the following:

- the quantity of meat handled; the disease which caused the meat to be subject to restrictions under the disease legislation;
- the quantity of meat placed into and removed from cold storage;
- the date of such movement into or out of cold storage;
- the quantity of such meat that is no longer intended for human consumption.

Records must be kept for 3 years from the date of slaughter, movement or treatment.

10.5.5 Treatment of restricted meat

One the following treatments must be applied to “restricted meat” in designated treatment establishments:

- Heat treatment in a hermetically sealed container with an F value of 3 or more (where F is the killing effect on bacterial spores: an F value of 3 means that the coldest point in the product has been heated sufficiently to achieve the same killing effect as 121°C in three minutes with instantaneous heating and chilling).
- Heat treatment at a minimum temperature of 80°C which must be reached throughout the meat.
- Heat treatment in a hermetically sealed container to at least 60°C for a minimum of 4 hours during which time the core temperature must be at least 70°C for 30 minutes.
- Natural fermentation and maturation of not less than nine months for boneless meat resulting in the following characteristics: a Water Activity (Aw) value of not more than 0.93 or a pH value of not more than 6.
- Treatment of hams and loins involving natural fermentation and maturation for at least 190 days for hams and 140 days for loins.

In addition to the HACCP records, the occupier of a treatment centre where restricted meat is treated must keep records of the following:

- the date of the treatment;
- the species of animal from which the meat came;
- the quantity of meat treated
- the treatment applied.

Records must be kept for 3 years from the date of slaughter, movement or treatment

10.5.6 FBO/FSS Responsibilities

FBO Responsibilities	FSS Responsibilities
Restricted meat is marked with the special mark required by the legislation.	FSS staff delivering official controls in approved establishments during an SF must verify compliance with the rules for “restricted meat” in particular: • Restricted animals and restricted meat can only be present in an

	establishment specifically designated for SF. The OV/OA must request a copy of the designation to the FBO for verification purposes. • Requirements established in the designation for SF. • Complete separation from other meat/animals/animal by-products. • Continuous and adequate application of the required marking at all times. • Dispatching of restricted meat to exclusively SF designated premises. • Records regarding traceability of restricted meat and animal by-products. • Treatment parameters and practices.
FBO must not be in possession or control of restricted meat unless it is marked with the required special mark and the establishment is designated for SF.	Detain any meat that is in doubt and seek clarification.
Do not remove the special mark except to enable cutting, preparing, processing, packing or treatment of the restricted meat. Any person who removes the special mark, other than a person treating meat at a designated treatment centre, must reapply the special mark, with the appropriate plant approval number, after cutting, preparing, processing or packing the meat. The reapplication of the special mark should be immediate to avoid keeping the meat unattended at any time without being properly identified with the special mark.	Record in the daybook details of the verification of “restricted meat”.
	Detain any meat when in doubt and seek clarification.
Keep records for 3 years from the date of slaughter, movement or treatment. of: • the quantity of meat handled; • the disease which caused the meat to be subject to restrictions under the disease legislation;	Report any incident related to “restricted meat” to FSS Incidents, inform immediately the Vet Advisor and refer it to the relevant Local authority.

• the quantity of meat placed into and removed from cold storage; • the date of such movement into or out of cold storage; • the quantity of such meat that is no longer intended for human consumption. • the date of the treatment; • the species of animal from which the meat came; • the quantity of meat treated; • the treatment applied	

10.6 SF Slaughterhouse/GHE case

Live animals, carcases and offal with suspicious SF clinical signs or lesions found during routine ante-mortem or post-mortem inspection, are called 'slaughterhouse/GHE cases'. The animals may or may not have come from premises included in SF Surveillance Zone/Protection Zone.

FBO Duties	FSS Duties
Assist the OV and APHA VI during the investigation of the suspected case.	On suspicion of SF during AMI or PMI, OV to follow instructions on section 2 of this chapter.
Not to move, or permit to be moved: • the pig or carcase which is the subject of the notification from the premises where it is located; • any other pig or carcase to or from those premises; • any other animal from those premises if the APHA VI is of the opinion that it is likely to spread disease; • anything off those premises unless the APHA VI is of the opinion that it is not likely to spread disease.	If SF is identified/suspected at the slaughterhouse, the OV must report to APHA who will provide further instructions and inform the FBO of the suspicion requesting to stop the production as established by the legislation.
Ensure that any person who has been in contact with any pig or carcase, or who has been on any part of the premises that may be contaminated with disease, takes all necessary biosecurity precautions to	Ensure that when APHA is notified of suspicion of disease in pigs at an establishment, the establishment will be placed under restrictions and further movements of animals onto the premises prohibited whilst

reduce the risk of spreading disease before leaving the premises.	investigations take place. The killing of pigs will be halted by the FBO until the APHA VI arrives and assesses the situation. Suspect animal(s) must be kept isolated and no product of animal origin (for example, meat, animal by-products) or potentially contaminated items/vehicles/person must leave the establishment.
Do not permit any pig to be slaughtered unless authorised by an APHA VI.	If instructed by APHA VI, ensure that if any remaining pigs will be killed without delay, the meat is detained and kept separate from other meat instructed by APHA VI.
Identify and isolate any carcase in which ASF has been suspected, any carcase originating from the same premises (and any carcase that has been in contact with any such carcase) so that such carcases do not come into contact with any other pig or carcase at the slaughterhouse/GHE.	Meat and any product (for example, animal by-products, edible co-products, manure, digestive tract contain) that has come from the suspect pig/s or may have come into contact with such meat/products, will be detained pending the outcome of the investigation.
	If swine fever is confirmed these meat/products will be handled and disposed of as category 2 material (category 1 material if originated from wild animals) in leakproof and closed containers. All meat at the premises will temporarily be detained until the APHA VI has assessed the risk of the meat/products being infected or contaminated with swine fever virus. Where there is no risk of ASF infection or contamination, meat/products may be released otherwise it will be detained pending test results.
	If ASF can be negated by the APHA VI on clinical grounds, restrictions can be lifted and normal business resumed. All meat that had been detained will be released for sale subject to it continuing

	to comply with food hygiene requirements.
	Ensure that if samples need to be taken to confirm or negate the presence of ASF then restrictions will remain in force for 24-48 hours; this will prevent further animals being brought into the abattoir for slaughter. The APHA VI will assess which pigs in the lairage may be infected and take the necessary samples. The OV and the APHA VI should liaise with the FBO to discuss impacts, mitigations and to work through the FBO's contingency plan.
Cross contamination is a risk at both production areas (between meat/products) and lairages (between animals). The APHA VI, working with FBO and OV will determine which animals and products may be at risk and thus detained and potentially disposed of. Withdrawal/recall of meat/products exposed to the risk of contamination may be necessary. Therefore, records will need to be available from the FBO at the time of the APHA visit or as soon as is practically possible	
All animal waste (including manure, digestive tract content, hair, bones) and animal-by products have to be handled and transported preventing the risk of spread of the virus and disposed in a way assuring inactivation of virus.	The OV should work with the FBO and APHA when disease is confirmed to manage any necessary disposal. To move anything off the site, licenses will be required.
In case of requiring a recall/withdrawal, the quantities/batches affected will depend on: • the batch size, • segregation during processing • traceability. • the quality and frequency of staff hand washing • sterilisation of tools • cleansing and disinfection procedures • robust implementation of C&D particularly for food contact surfaces, scalding tank/steam chambers and depilation machinery.	

The potential need of recall/withdrawal would likely be for animal health purposes only as there would not be public health concerns. Depending on the risk assessment, the product may be subjected to a withdrawal rather than a recall. In that case, the withdrawal may be applied up to retail or retail distribution but not consumers and probably not from shop shelves. In order to minimize the size of the recall/withdraw, small batches, cleaning and disinfection between batches and robust traceability systems including records are recommended. Similar procedures would be applied in Game Handling Establishments where ASF is suspected.	
	Verify the compliance with the FBO's duties established in the legislation, reminding the FBO of their obligations and reporting any breach to the APHA VI.

10.7 SF Farm case

Animals at a farm where SF has been confirmed will be disposed of at the farm and will never be sent to a slaughterhouse. However, animals from that farm may have been sent to slaughter before disease was confirmed, whilst the disease was incubating. Therefore, the meat from these pigs may be affected by SF and will need to be traced, withdrawn, and disposed of. Animal products potentially infected with SF will be disposed of as category 2 animal by-products.

FBO Duties	FSS Duties
FBO will be notified by APHA that the slaughterhouse has received pigs from an IP and the products from these pigs must be withdrawn and disposed of.	OV will be notified by APHA that the slaughterhouse has received pigs from an IP and the products from these pigs must be withdrawn and disposed of.
The FBO is responsible to dispose of the carcase/meat and derived products including animal by-products, coproducts.	OVs must follow APHA instructions. APHA will determine the earliest estimated date of introduction of the SF virus on the IP farm following the epidemiological investigation and will provide instructions about the requirements for tracing, withdrawal and disposal of any meat and animal-by-products.
If the product has already left the establishment the FBO is responsible for notifying the recipient that they have	Pigs moved from the IP to slaughter in the period after SF may have been introduced at the farm, but before

similar responsibilities to dispose of the meat or notify other premises if the meat has been moved.	disease restrictions were imposed may have been infected with SF. Therefore, will be subjected to APHA epidemiological investigation and risk analysis. The meat from these pigs may be infected with SF and will need to be traced, withdrawn and disposed of.
Records must be retained for inspection	OVs must verify the FBO's batching procedures in place for assessing the risk of other meat being contaminated. This would require the consideration of: • FBO's internal traceability procedures; • cleaning schedules, frequencies; • procedures applied in the lairage, scalding tank/depilation machine and food contact surface (for example, evisceration/cutting equipment, cutting board).
Meat must be withdrawn by processors, manufacturers, distributors and retailers as far as retail shelves but not from end consumers.	Verify: • FBO's traceability records for the affected meat, liaising with the FSS Incidents team for the wider supervision for any withdrawal needed • traceability records for any category 3 material and manure/digestive tract contain generated or potentially contaminated with the virus. This would require the assessment of the batching of animal by-products and the frequency of collection and liaison with APHA.
Any person who is in possession of meat from a restricted animal originating from the "relevant date" from suspect premises, or meat that has come into contact with such meat, must detain that meat until those premises are no longer suspect premises. "Relevant date" means the date the suspect premises or infected premises became subject to disease restrictions, or any earlier date where the Secretary of State specifies such a date for disease control purposes.	
Any person in possession of meat produced from a restricted animal originating from infected premises from the relevant date, or meat that has come into contact with such meat, must destroy that meat without delay.	
Any person who has owned or been in possession of meat referred above must	

endeavour to trace that meat and inform the recipient of that meat, other than a consumer, that it is from infected premises.	

10.8 Enforcement Responsibilities

Enforcement	Authority Responsible	Regulation
SF controls	• Local Authority • FSS staff can hold the granting of pre-designations/activation of designations and recommend the suspension or withdrawal of them.	The Diseases of Swine Regulations 2014 Animal Health Act 1981 as amended by the Animal Health Act 2002 The Products of Animal Origin (Disease Control) (Scotland) Order 2008
Licence and movement requirements	• Local Authority. • FSS staff are authorised to verify compliance with the conditions of the licence.	
Designated Establishments	• Scottish Government • FSS staff can hold the granting of pre-designations and recommend the suspension or withdrawal of them.	

11. Bluetongue Virus Disease (BTV)

11.1 Introduction

11.2 Ante-Mortem requirements

11.3 Movements Rules

11.4 Designation of a slaughterhouse

11.5 Meat Controls

11.6 Enforcement Responsibilities

11.1 Introduction

Bluetongue Virus (BTV) Disease is a notifiable disease of ruminants, including sheep, cattle, deer, goats and camelids. It is generally accepted that BTV does not cause disease in other animals or humans.

The severity of the infection depends upon the strain of the virus and may be affected by serotype. There are currently 29 different BTV serotypes. Further information about BTV in UK can be found online.

Photos of clinical signs can be found here.

These instructions are applicable in case of outbreak of BTV. However, part of these instructions may be applicable to certain scenarios (situations) where there is a risk of introduction of the disease through the import of animals.

Ruminant Health & Welfare is monitoring the disease and providing updates and advice on their hub, including the technical webinars our OVs are attending.

Regulations:

Bluetongue (Scotland) Order 2012

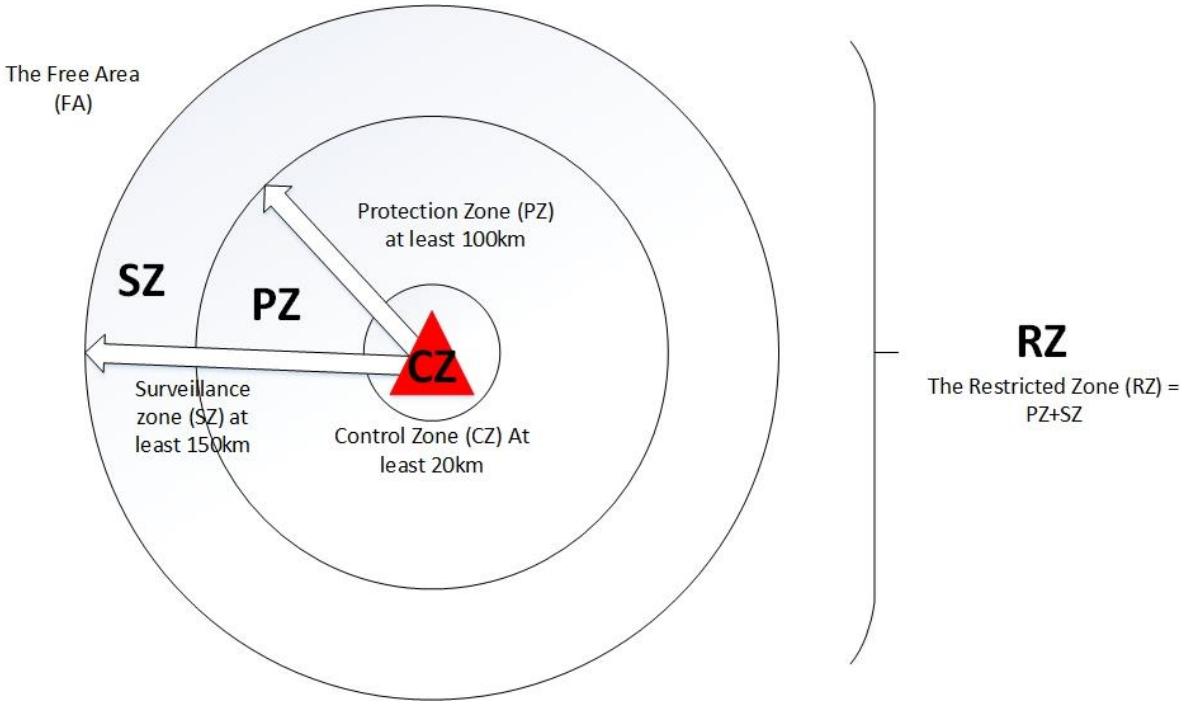
Council Directive 2000/75/EC

Commission Regulation (EC) No. 1266/2007

11.1.1 Zones

Once circulation of disease is officially confirmed, appropriate areas are declared as a Control Zone (CZ) or a Temporary Control Zone (TCZ) (which must include the infected premises) and a Restricted Zone (RZ) (made up of a Protection Zone (PZ) and Surveillance Zone (SZ)).

- CZ or TCZ - at least 20km around infected premises
- PZ - at least 100km around infected premises (with flexibility to adjust according to epidemiological circumstances).
- SZ - at least 150km around the infected premises (with flexibility to adjust according to epidemiological circumstances).



Ilustration of the relationship of disease control zones

A map with the current zones will be available on the relevant devolved government policy websites.

An outbreak is only confirmed once the disease is found to be circulating in the midge vector populations. A single infected animal alone would NOT therefore constitute an outbreak, unless it can be proven to have become infected by resident midge vectors via another animal in the vicinity.

During a BTV outbreak, restrictions may apply to red meat slaughterhouses approved for processing ruminants and game handling establishments (GHE) operating within RZ. Only specifically designated slaughterhouses outside the PZ are permitted to receive ruminants from the BTV zones under a General Licence.

There are no restrictions on the movement of non BTV susceptible species such as pigs and poultry within the BTV RZ. Slaughterhouses processing such species alone (for example, pigs) will operate as normal.

The potential licensed movement of ruminants to slaughter are:

- Movement of animals for slaughter from premises in TCZ.
- Movement of animals for slaughter from a RZ.
- Movement out of a RZ for slaughter within 24 hours at a slaughterhouse (which must be designated if receiving animals from a PZ).
- Movement out of PZ to a designated slaughterhouse in SZ.

Each movement is also subject to special conditions as stipulated on the license which has implications for both the transporter and the slaughterhouse operator on arrival.

The FBO of the slaughterhouse in an SZ also needs to have a licence to operate if they receive animals from a PZ.

11.1.2 Legislation

The Bluetongue (Scotland) Order 2012 No. 199. This Order implement Council Directive 2000/75 and enforces Commission Regulation 1266/2007

Note: Scottish Ministers are the Competent Authority.

11.2 Ante-Mortem Requirements for BTV

Although BTV has no public health implications, it has major significance for animal health and substantial economic consequences. It is important for the OV to be vigilant for BTV clinical signs at ante-mortem and post-mortem inspections on all ruminants.

Photographic images of clinical signs can be found here.

If you suspect the presence of the disease, contact APHA immediately following the procedure for reporting suspect cases of Notifiable Diseases laid out in Section 2 of this Chapter, inform the FBO of the slaughterhouse and report it to the Vet Advisor.

After notification, the OV must follow the instructions issued by the APHA VI. FBOs should be aware that if a BTV positive case is identified in a slaughterhouse, APHA will serve a Notice declaring the slaughterhouse as an infected premises and certain conditions will then be imposed.

Licensed insecticides or repellents which must be applied to lorries prior to loading or buildings, in accordance with the manufacturer instruction do not need to be declared on the FCI.

Flexibilities on OV attendance in low-capacity establishments are **not applicable** in slaughterhouses receiving animals covered by BTV movement licences.

11.2.1 "Dusk" rule

Animals moved under a General Licence from a RZ to a slaughterhouse within the PZ have to be moved and slaughtered at least two hours before sunset at the latest and 1 hour after sunrise (the 'dusk' rule).

The OV is to report any non-compliance with the requirements of the 'dusk rule' to their Local Authority Trading Standards Office and to the Vet Advisor who may consider the recommendation of the suspension of the designation of the slaughterhouse.

11.2.2 Residues

BTV movement controls may involve the use of insecticides and repellents at farm level and during transport.

This should be taken into consideration when carrying out the ante-mortem inspection and, particularly, during the assessment of the FCI. Withdrawal periods prior to slaughter must be adhered to as stipulated by the manufacturers' instructions for any pour on insecticides or residual sprays that are applied to animals.

The insecticides required for premises and vehicles are not usually licenced for being used directly on the animals. Those environmental insecticides or repellents must be licensed by the HSE and used as per manufacturer's instructions. As they are not applied directly on the animals, they are not required to be recorded in the FCI.

For more information regarding the approved insecticides or repellents please visit:

Pesticides- HSE.

Insecticides or repellents used on the animals must be licenced by the VMD, used as per manufacturer's instructions, the withdrawal periods observed and declared in the FCI.

11.3 Movement Rules

11.3.1 Movement of live animals

The movement of susceptible live animals (for example, ruminants) will be subject to restriction.

The direct movement to slaughter of ruminants is likely to be allowed soon after the start of an outbreak providing the movement takes place under a general licence or a specific licence issued by APHA.

For movement licences and most up to date licensing requirements FSS staff / FBOs may consult the DEFRA website or contact their local APHA office in the first instance.

11.3.2 Movement of Fallen Stock & Deer Carcases

There are no movement restrictions on fallen stock from slaughterhouses and deer carcases to GHE.

11.3.3 FBO and FSS duties

FBO Duties	FSS Duties
FBOs should be aware that for animals moved under a General Licence the movements must be timely reported to the Scot EID for cattle and Scottish Animal Movement Unit (SAMU) for sheep and goats.	OV is to report any non-compliance with the requirements of the movement licences to their Local Authority Trading Standards Office.
To endorse the movement licence by signing it to confirm that the animals have arrived and been slaughtered immediately. The FBO must send the completed movement licence to the issuing APHA licencing office.	The OV / OA should endorse the movement licence by completing the part dedicated to the OV / OA for confirming that all ruminant animals covered by the licence have been slaughtered in compliance with the movement licence conditions. Once this part has been completed, the licence must be returned to the FBO.
	On arrival at the slaughterhouse the animals must be slaughtered no later than two hours prior to sunset on the same day as arrival and the journey must be planned accordingly in conjunction with the slaughterhouse operator.
	The OV should verify that the FBO is complying with the licence requirement of returning the completed movement licence to the issuing APHA licencing office.

11.4 Designation of a Slaughterhouse for BTV

The designation needs to be granted by Scottish Ministers before receiving or processing animals, to:

- Slaughterhouses in bluetongue free areas which want to receive susceptible animals from the CZ, PZ or SZ during a BTV outbreak.
- Slaughterhouses processing imported susceptible animals representing a higher risk of introduction of the BTV disease.

Abattoirs with field lairage, co-located ruminant animal holdings or unclear boundaries are not acceptable and cannot be approved for designation.

The Scottish Ministers may designate slaughterhouses for the purpose of slaughtering animals out of a restricted zone.

The conditions of any designation must be such as to ensure that the slaughterhouse operates in accordance with the Commission Regulation.

The operator of a slaughterhouse in a surveillance zone may only slaughter an animal from a PZ if licensed to do so by the Scottish Ministers.

11.4.1 FBO/FSS Responsibility

FBO	FSS
Application for pre-designation	Verify compliance with designation rules and once satisfied with that, recommend the pre-designation and send to FSS Vet Advisor for countersigning, who will verify and forward to APHA
If the slaughterhouse is within a restricted zone, to contact APHA to request a movement licence	

The specific pre-designation and designation conditions are described in the pre-designation/designation application form. They include:

- **Controls related to the compliance of the "dusk rule".** The rules are only applicable for animals moved under a BTV licence. The procedures in place should be documented for facilitating staff training and implementation when the designation is activated.
- **Controls of slaughtering other animals without undue delay.** Movement rules require that animals should be slaughtered no later than 48 hours after arrival (for animals moved under BTV movement licences, the "dusk rule" apply). This applies at both pre-designation and designation stages. If the FBO is not complying with this condition, the OV should not recommend the pre-designation.

- **Requirements in relation to biosecurity.** In particular the slaughterhouse has to keep yards and surrounds clean and minimise areas which could harbour vectors. This applies at both pre-designation and designation stages. If the FBO is not complying with this condition, the OV should not recommend the pre-designation.
- **Requirements in relation to the management of manure.** When the designation is activated, manure must be removed from the abattoir on a daily basis. Pre-designated slaughterhouses must have documented procedures reflecting the capability of applying that requirement when the designation is activated.
- **Requirement in relation to the cleaning and disinfection of lairage and associated areas.** The lairage is cleansed and disinfected as part of the abattoir's normal operating protocol. The cleaning and disinfection procedures for the lairage, unloading areas and walkways must be clearly documented including frequency and disinfectant in use. Those procedures must be implemented as per established procedures in both pre-designation and designation stages. The procedures may establish different frequencies during outbreaks but during outbreaks, unloading facilities for vehicles and any walkways likely to become soiled with dung must be fully cleansed and disinfected on at least a daily basis.

On granting the pre-designation/designation, the OV should keep a copy in the plant file and verify compliance.

FSS auditors should verify compliance with the conditions established in the pre-designation/designation document and that the information on it remains accurate.

Failure to comply with the conditions should trigger the consideration of the suspension or revocation of the pre-designation/designation. The OV should contact the Vet Advisor in those cases.

The application for pre-designation/designation of a slaughterhouse for bluetongue template can be found at Annex 32.

11.5 Meat controls

There are no specific meat restrictions (for example, special mark or treatment) related to BTV.

11.6 Enforcement Responsibilities

Enforcement	Authority Responsible	Regulation
License Requirements including “dusk rule”	• Local Authority • FSS staff can hold the granting of pre-designations recommend the suspension or withdrawal of them	The Bluetongue (Scotland) Order 2012 No. 199. This Order implement Council Directive 2000/75 and enforces Commission Regulation 1266/2007
Designated Establishments	• Scottish Government • FSS staff can hold the granting of designations/activation of designations and recommend the suspension or withdrawal of them	

12 Foot and Mouth Disease

12.1 Introduction

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12.6 Enforcement Responsibilities

12.7 Suspected case at slaughterhouse

12.1 Introduction

This section describes how an outbreak of Foot and Mouth Disease (FMD) would be managed in Scotland. Focussing on the controls applicable in slaughterhouses, cutting plants and meat processing plants.

Responsibility for managing outbreaks in Scotland falls under the responsibility of the Scottish Government. Food Standards Scotland is the key operational partner of Scottish Government for the managing the outbreak in relation to slaughterhouses and approved meat establishments.

The FMD strategy for Great Britain can be found in the following link.

For further information regarding how to sport and report Foot and Mouth Disease please visit:

Foot and mouth disease: how to spot and report the disease – gov.scot (www.gov.scot)

12.1.1 Legislation

The Animal Health Act 1981.

The Foot-and-Mouth Disease (Scotland) Order 2006

The Foot and Mouth Disease (Slaughter and Vaccination) (Scotland) Regulations 2006

The Foot-and-Mouth Disease (Scotland) Amendment Order 2007

The Foot-and-Mouth Disease (Scotland) Amendment (No. 2) Order 2007

Animal Health and Welfare (Scotland) Act 2006 (legislation.gov.uk)

The Animal Health Act 1981 (Amendment) Regulations 2005

12.1.2 Clinical signs and effects

Seven distinct serotypes of the FMD virus have been identified. The clinical signs of FMD are similar to other vesicular diseases and confirmation of diagnosis can only currently be made following laboratory tests. Affected animals have a high fever, which is followed by the development of blisters mainly in the mouth and on the feet. In some species however (notably sheep and goats), the disease is less severe or occurs as a sub-clinical infection.

Some strains can give rise to high levels of mortality in young animals. In adult animals the disease is not usually fatal, however it causes severe pain and distress, especially in cattle, and animals may be left permanently lame with reduced productivity following recovery.

The virus is present in great quantity in the fluid from the vesicles, and it can also occur in the saliva, milk and dung. Contamination of any objects with any of these secretions or excretions is a danger to other susceptible animals. Heat and some disinfectants will destroy the virus, whereas cold and darkness tend to keep it alive. Survival of the virus in the environment depends on a range of factors and is highly variable. Under field conditions, this can range from days to months.

The virus can be transmitted on fomites (an inanimate object capable of transmitting infectious organisms from one individual to another, for example, vehicles and farm equipment), as well as mechanically by animals and other living vectors. Susceptible animals can pick up the virus either by direct contact with an infected animal, or by contact with foodstuffs or other things which have been contaminated by an infected animal, or by eating or coming into contact with some part of an infected carcase.

Airborne spread of the virus can also occur and, under favourable climatic conditions, the disease could spread several miles by this route.

12.2 Control Zones

12.2.1 Controlled Zones

According to the WOAH, “zone” means a part of a country defined by the Veterinary Authority, containing an animal population or subpopulation with a specific animal

health status with respect to an infection or infestation for the purposes of international trade or disease prevention or control.

Zones will be put in place on suspicion or confirmation of disease at an Infected Premises to limit spread of disease. The zones have associated restrictions on the movement of animals, animal products and anything else which can spread disease. The restrictions are stricter close to IP.

- A **Protection Zone (PZ)** – mandatory on confirmation of disease and will cover a minimum of 3 km radius from the Infected Premises. The Authority may decide not to put in place a PZ where the premises are a slaughterhouse or a place where animals have been sent by the Authority following suspicion of disease in an animal in transit.
- A **Surveillance Zone (SZ)** – mandatory on confirmation of disease and will cover a minimum of 10 km in radius from the Infected Premises. The Authority may decide not to put in place a PZ where the premises are a slaughterhouse or a place where animals have been sent by the Authority following suspicion of disease in an animal in transit.
- A **Restricted Zone (RZ)** – may be declared to implement a national movement ban across GB by each Administration at the beginning of any FMD outbreak if required.

When an APHA VI is unable to rule out the disease during the investigation of a suspected case, samples will be taken. The APHA VI will also serve a notice on the occupier of the premises designating it a Suspect Premises. No movements of any person or thing are permitted on or off the premises unless licensed by a VI.

If samples are submitted because FMD cannot be ruled out, a **Temporary Control Zone (TCZ)** may be put in place around the suspect premises with a default size of 10km in radius. The zone can be larger or smaller if considered more appropriate for controlling the spread of disease. Within the TCZ, movements of susceptible animals to and from premises (including into or out of the zone) are not allowed except under licence.

A **Supplementary Movement Control Zone (SMCZ)** may also be established at suspicion stage, restricting the movement of animals in a wider area.

If laboratory tests and veterinary investigations do not indicate the presence of FMD any longer (or the virus of any other notifiable vesicular disease), restrictions on the premises will be lifted.

Routine, preventative vaccination is banned under EU law, allowing the EU to maintain the highest FMD status under international trade rules of “countries free from FMD without vaccination”. However, from the outset of an outbreak the Government is

legally obliged to consider whether vaccination would assist disease control and as appropriate activate arrangements to implement vaccination.

If vaccination is implemented, it will normally be carried out within **Vaccination Zone(s) (VZ).**

A **Vaccination Surveillance Zone (VSZ)** extending at least 10 km beyond the edge of the vaccination zone will be put in place. This zone and its restrictions remain until FMD-free status is achieved.

Once vaccinated, live animals cannot be traded either within the EU or Internationally. EU safeguard measures (for example, special certification or special marking) will be in place restricting non-heat-treated meat and meat products to the domestic market for most of the duration of an outbreak. The nature of the restrictions may depend on the slaughter date of the animal.

12.2.2 Designation

There are two types of FMD designation for establishments:

- Level 1. Establishments producing unregulated meat during an outbreak of FMD.
- Level 2. Establishments producing regulated meat during an outbreak of FMD.

‘Regulated meat’ means, for the purposes of this document, fresh meat etc. referred to in Part 2 of schedule 4 of Foot-and-Mouth Disease (Scotland) Order 2006.
‘Regulated meat’ is meat from susceptible animals originated in PZ or SZ produced after 21 days before the earliest infection date and any other meat which may not have been stored and transported separately from it. Regulated meat does require specific treatment for inactivating the virus and must be ‘regulated meat’ at all times until it is subjected to a specific treatment in a designated treatment establishment.

Approved meat establishments will need to be designated by APHA on behalf of Scottish Ministers before receiving and processing susceptible animals and meat from premises within a PZ or SZ.

Establishments operating and situated within a PZ or SZ must be designated to be able to operate during the outbreak regardless of the origin of the animals or meat.

Additionally, all the slaughterhouses operating during an FMD outbreak within the Restricted Zone (RZ) (possibly the whole of Great Britain) need to be designated even if they are not receiving animals from a PZ or SZ.

In order to facilitate preparedness for a potential outbreak, FBOs may apply for a pre-designation anytime. Pre-designation can be granted by FSS.

On request of the FBO, the pre-designation may be subsequently activated during an outbreak of FMD. Regardless of pre-designation, plants are not designated until the APHA activates the designation during an outbreak.
Movement of animals or product to the plant may additionally require a movement licence issued by APHA.

Designations are only valid during the outbreak period and to process products produced during the outbreak period. Once the outbreak officially ends, the establishment will remain pre-designated providing that there are no relevant changes.
If there are any changes affecting the legal entity, the management, the biosecurity facilities or the control procedures required for the designation, the FBO must inform the FSS OV and, if applicable, re-apply for a pre-designation.
In the case of a new outbreak, the establishments will have to apply for the activation of the pre-designation.

Only approved establishments demonstrating robust compliance with all the designation requirements will be designated to operate during an FMD outbreak.

Once the approved premises is designated, FSS is responsible to review the designation either annually or when any change to the process applies.

NOTE: The FMD designation application and review forms, as well as procedures to undertake them are currently being developed and will be published as soon as they are ready.

For any establishment handling ‘regulated meat’ (level 2 designation) they must have satisfactory chiller capacity for maintaining the separation between different categories of meat. This will imply separate chillers in the case of exposed meat or clear physical separation in case of fully wrapped and packed meat and satisfactory handling and disposal of ABP generated from ‘regulated meat’.

For slaughterhouses applying for any designation (i.e. level 1 or level 2), the following requirements must be met:

- Satisfactory C and D facilities for ensuring the 100% C and D of livestock lorries on site. This may be achieved by limiting throughput.
- Satisfactory capacity and arrangement for the handling, treatment and disposal of manure.
- Satisfactory presentation of heads and feet for post-mortem inspection.
- Satisfactory biosecurity measures in place covering all visitors, vehicles and laundry.
- Satisfactory arrangements with the FSS for ensuring full OV attendance and the post-mortem inspection of all the heads and feet of susceptible species.

For treatment establishments, satisfactory implementation of HACCP-based procedures guaranteeing and demonstrating the effective treatment of the 'regulated meat'.
Activation of a designation does not mean the establishment will be able to receive animals for slaughter or meat as such movements will additionally require a licence.

12.2.3 Movement of susceptible animals

At the start of any outbreak, there will be a high degree of uncertainty about where in the country FMD may exist. The position will start to become clearer as tracings, surveillance and the epidemiological investigation progress. Decisions on change control measures will only be taken when the epidemiological position for any particular outbreak indicates that the risk of spread can be adequately mitigated by biosecurity conditions. It is essential that restrictions remain in place as long as necessary to ensure the disease can be controlled and eradicated as quickly as possible.

Changes in movement restrictions can be expected to be phased. The first phase will be limited to those activities which need to happen at the beginning of any outbreak to address immediate animal welfare needs, for example, movement of dairy cows for milking, transport of feed to animals within zones or very low risk activities, collection and processing of milk.

Restrictions can be expected to be eased incrementally as certainty about the outbreak increases. Low risk movements will be considered, for example, movements direct to slaughter to a designated slaughterhouse within a short distance, before higher risk movements go live.

Government will address issues relating to ensuring what operations industry can reasonably continue to carry out during an outbreak through discussion with the FMD industry stakeholders in Scotland.

12.3 Meat controls

Below are explained the controls that apply in the following different circumstances:

Temporary Control Zones (TCZ) and Supplementary Movement Control Zone (SMCZ)	There is no specific control requirement for meat and milk from TCZ and SMCZ, unless premises are also within another zone, in which case the conditions for that zone apply. However, the controls for PZ and SZ will be applied retrospectively and therefore, some of the meat will

	subsequently need to be traced, marked and treated if FMD is confirmed (see below sub topics).
Potential infected material from IP	Meat and meat products, carcases, milk and milk products, hides and skins derived from susceptible animals from the IP will need to be traced. Once traced the owner will be required to either dispose of them or treat them as directed to kill any virus that may be present. This includes meat, milk or other products at the IP that were produced from susceptible animals originating from the IP or in some cases originating from other farms where the IP product has been in contact with such products. Compensation is not paid. The FSS Incidents team will coordinate the tracings of meat and other products of animal origin intended for human consumption from animals originated in the IP. Once found, FSS staff should detain them for ensuring their adequate disposal.
Regulated meat produced before confirmation of IP and establishment of PZ and SZ	Meat produced from animals originating from an area that subsequently became a PZ which was produced in the 21 days before the earliest infection date in that PZ and any other meat which was not stored and transported separately from it becomes ‘regulated meat’. Such must be traced for ensuring its marking and treatment. If Scottish Government require the tracing, the FSS Incidents team will coordinate the tracings of meat and other products of animal origin intended for human consumption. Once found, FSS staff should detain them for ensuring their adequate disposal or over-marking followed by treatment.
In PZ	Fresh meat from animals originating from a PZ can be marketed if either: • it was produced more than 21 days before the earliest infection date and stored and transported separately from meat produced 21 days or fewer before the earliest infection date; or • a treatment is applied before being marketed. This meat is ‘regulated meat’ until it is treated for inactivating the FMD virus. The production of ‘regulated meat’ requires:

	• separation of animals and product in abattoirs, transport and storage and subsequent plants until treatment complete, • meat to be health marked or identification marked and that mark to be over stamped until treated, and • meat to be treated for inactivating the FMD virus in an FMD designated establishment. The main treatment allowed for meat and offal is heat treatment (cooking). (See 12.3.1) Slaughterhouses handling animals originating from farms in the PZ must be designated for FMD. Any commercial premises located in the PZ which handles meat must be designated for operating under the FMD outbreak.
Fresh meat, minced meat, MSM and meat preparations	Where this meat is from susceptible animals and produced on approved establishments in a protection zone, the establishment must be designated by the FSS for operating during the FMD outbreak. The establishment must process only meat which was either: • produced in the protection zone more than 21 days before the earliest infection date there, or • produced from animals reared and slaughtered outside a protection zone, or • produced from animals transported to the establishment under the authority of a licence granted under The Foot and Mouth Disease (Scotland) Order 2006 The establishment must at all times during the production process stores, identifies and transports restricted meat separately from other meat.
In SZ	Fresh meat from animals from a SZ can be marketed if either: • the animals were on the same premises for at least 21 days before slaughter and were identified so as to allow tracing of the premises; and the meat has been detained under supervision for at least 7 days and until any suspicion of infection on the premises of origin has been ruled out; or

	• the animals were on the same premises for at least 21 days before slaughter during which no susceptible animals were brought onto the premises; samples taken within the 48 hours before loading have tested negative; and meat has been detained under supervision for 24 hours and not released until after a repeat inspection of animals on the premises of origin has ruled out on clinical grounds the presence of infected or suspect animals.
Fresh meat, minced meat, MSM and meat preparations produced in approved establishments in SZ	The establishment must be designated for operating during the FMD outbreak. The establishment must process only meat which was either: • produced from animals transported to the slaughterhouse from the surveillance zone and it falls within paragraph The Foot and Mouth Disease (Scotland) Order 2006 • produced from animals reared and slaughtered outside the surveillance zone and its associated protection zone, or • produced from animals transported to the slaughterhouse from the protection zone under the authority of a licence granted under The Foot and Mouth Disease (Scotland) Order 2006. The establishment must at all times during the production process; store, identify and transport products intended to be eligible for despatch outside the protection zone separately from those which are not eligible for that movement, and in accordance with the conditions of the authorisation.
In VZ	If vaccination is used for the control of the disease the Scottish Government will issue guidance for the meat controls from a VZ.

12.3.1 Meat treatments

Treatments required for meat before being marketed:

- Separation required in abattoirs, transport and storage and subsequent premises until treatment complete.

- Beef and sheep carcases (excluding heads, viscera and offal) must be health marked or identification marked, those marks over-stamped/cross-stamped and subsequently heat treated (cooked) or matured and deboned to specific standards
- Pig meat (excluding heads, viscera and offal) must be health marked or identification marked, those marks over-stamped and subsequently heat treated (cooked) to specific standards
- Offal must be trimmed to specific standards packaged, identified by an over-stamped ID Mark and subsequently treated by specific heat treatment or by specific fermentation and maturation for destroying the FMD virus

Meat Treatment for meat and offal from susceptible animals from PZ and for offal and certain meat from SZ	Meat requiring treatment to ensure the destruction of FMD virus must have undergone any of the following treatments: • heat treatment in a hermetically sealed container at a level of at least FO3; heat treatment at a minimum temperature of 70°C, reached throughout the meat; • heat treatment in a hermetically sealed container to at least 60°C for a minimum of 4 hours, during which the core temperature must be at least 70°C for 30 minutes; • natural fermentation and maturation of not less than nine months, resulting in the following characteristics: ▪ Aw value of not more than 0.93, or ▪ pH value of not more than 6.0; • heat treatment ensuring a core temperature of at least 65°C is reached for the time necessary to achieve a pasteurisation value equal to or more than 40.
Meat from susceptible animals from SZ	Trimming- offal standards • heart from which lymphatic glands, connective tissue and adhering fat has been completely removed, • liver from which lymphatic glands, adhering connective tissue and fat has been completely removed, • whole masseter muscles, • tongues with epithelium and without bone, cartilage and tonsils, • lungs from which the trachea and main bronchi and the mediastinal and bronchial lymphatic gland have been removed,

	• other offal without bone or cartilage from which lymphatic glands, connective tissue, adhering fat and mucous membrane have been removed.
De-boning standards	Meat (together with diaphragms but excluding offal) is deboned if the bone and main accessible lymphatic glands have been removed.
Maturation	Carcases are matured if they: • have been matured at a temperature of more than 2°C for at least 24 hours; and • have a pH value in the middle of the Longissimus dorsi recorded at less than 6.0.

12.4 FBO/FSS responsibilities

12.4.1 FBO Responsibilities

- Application for FDM pre-designation/designation

The FBO should apply to be pre-designated or designated to the OV on site.
The following tables summarise the required designations for operating during an FMD outbreak:

Slaughterhouse located in:	PZ	SZ	RZ	Free Area
Animals originating from: Farm in PZ Farm in SZ Farm in RZ Farm in free area	 Level 2 Level 2 Level 1 Level 1	 Level 2 Level 2 Level 1 Level 1	 Level 2 Level 2 Level 1 Level 1	 NP* NP* Level 1 NR*
Cutting Plant/meat processing plant located in:	PZ	SZ	RZ	Free Area
Regulated meat	Level 2	Level 2	Level 2	NP*
Unregulated meat	Level 1	Level 1	NR	NR*

*****NP – Not Permitted (high risk movement not allowed). NR – Not Required (no particular designation is required).

Treatment establishments applying any allowed treatment for destroying the FMD virus require a specific designation for that process.

- Biosecurity

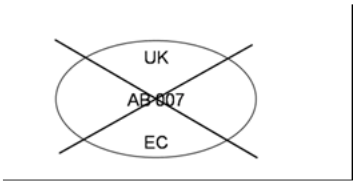
Good biosecurity standards in slaughterhouses must be implemented at all times but, during an FMD outbreak, they must be heightened.
Guidance on biosecurity is available on the Scottish Government website, link here. Defra pages of Gov.uk.

- Marking of meat

A special mark (for example, Round Mark with the letters GB instead of the oval mark with the letters EC) may be required for all the meat produced in the Restricted Zone (i.e. either the whole GB or any regionalisation which may be allowed) by international trade safeguard measures. In previous outbreaks, the round mark required by the Commission Decision 2001/304/EC included size specification for that special mark (GB = 7 mm, Establishment No = 10 mm, Circle outer diameter = 50 mm, Line thickness of circle = 3 mm).

All the 'regulated meat' (meat for PZ or SZ) must have an 'regulated meat' heath mark or ID mark clearly applied to it. Every single health mark and ID mark applied on "restricted meat" must be clearly 'regulated meat'.

'Regulated meat' means, in relation to a health marked or ID marked item, bearing an additional diagonal cross consisting of two straight lines intersecting at the centre of the health mark or ID mark and allowing the information there to remain legible (whether or not that additional cross is applied by the same stamp as the mark).



All meat with an 'over-stamped' heath mark or identification mark is 'regulated meat' must be treated in a designated establishment using specific treatments for destroying the FMD virus.

Regulated meat can be transported to a designated treatment centre for an approved treatment to ensure any undetected FMD virus is destroyed. After treatment, the restricted markings can be removed and the normal oval (or round mark if the EU Decision requires this) health mark be applied.

- Traceability and record keeping

Traceability of the meat is a legal requirement in all circumstances. The FBO should be aware that robust internal traceability systems will help to minimize the costs of the required tracing of the meat produced from the PZ before the declaration of the PZ.
The occupier of every premises in a PZ or SZ where susceptible animals are kept shall create and maintain the records regarding the number of each species of animal kept and the stock of meat, meat products, carcases, hides and skins, manure, fodder and used litter. The occupier shall maintain these records updating them within 24 hours of any change.

12.4.2 FSS Responsibilities

- FSS presence

During an FMD outbreak, low-capacity designation at slaughterhouses and Game Handling Establishments are suspended. At least one OV must be present at all times when slaughtering until all animals have passed post-mortem inspection.
Additional FSS attendance may be required to provide the controls and verification required for the control of the outbreak.
Strict biosecurity practices must be implemented by FSS staff at all times. Particular attention must be paid to the use, handling and disposal of protective clothing and the C&D of footwear and equipment.

- Confirmation of FMD designation of the slaughterhouse

OVs must obtain confirmation from the FSS Vet Advisor that the slaughterhouse is designated for handling regulated meat and/or operating within a PZ/SZ before releasing animals from PZ or SZ for slaughter.

OVs must obtain confirmation from the Vet Advisor that the cutting plants or treatment establishments to where ‘regulated meat’ is dispatched are designated for handling and treating ‘regulated meat’.

FSS staff should encourage FBOs to apply for pre-designation even if they do not need it, so they can operate without disruption should they require it at a later stage.

- Movement of animals

On arrival to the slaughterhouse the OV or OA must inspect the movement licences and accompanying documents for every animal or batch of animals to verify:

  - the origin of the animals

- that the consignment is intended for that slaughterhouse
- that where the animals originate from a PZ/SZ, they are kept separated from other animals.

- Cleaning and Disinfection

Additional FSS checks are required to verify compliance with the C&D conditions attached to the licences.

After unloading at the premises of the destination, the parts of the vehicle used to transport anything which might be contaminated with mud, slurry, animal faeces, excretions or any other similar matter including the wheels and wheel arches must be C&D on site.

The provisions for signing the driving declaration and leaving the establishment without the vehicle being C&D are not applicable in control zones during an FMD outbreak.

FSS staff must carry out 100% checks of C&D of vehicles used to transport animals from a PZ/SZ and of all vehicles if the slaughterhouse is located in a PZ/SZ. Additional FSS staff may be required to perform those checks.

The hard standing area used for the C&D of the livestock transport must be maintained clean and free of animals/vermin/pets. This area must be C&D after finishing operations. Other vehicles should not have access to this loading area for the duration of operation as a designated establishment.

C&D must include the wheels and wheel arches.

All transport vehicles must be thoroughly C&D after unloading the animals and before leaving the slaughterhouse. Special care must be taken to avoid any recontamination of vehicles after C&D, particularly through soil and dirt adhering to the wheel arches and surrounding parts (as this is not controlled by the wheel mats at the exit). This may necessitate spraying the exterior of the vehicle at the boundary of the site.

The abattoir must be clean prior to commencing killing. Naturally vermin and poultry should not have access to the abattoir to avoid transmission of undetected disease.

No additional FSS C&D checks are required in a slaughterhouse located outside of the PZ/SZ where the transport of animals originated from outside the PZ/SZ. However, the FBO must maintain high standards of C&D of all vehicles and no transport vehicle must leave any designated slaughterhouse without being C&D.

- Confirmation of slaughter

The OV or the OA under the OV supervision must confirm that the animals arriving under a Specific Licence have been slaughtered by endorsing the licence presented by the FBO.

Where any problems arise relating to animal movements the OV must contact the Local Authority.

The OV should verify that the FBO is returning the completed Specific Licence to the issuing APHA office.

- Enhanced PMI

The designation of slaughterhouses includes the requirement of the presentation of all the heads and feet from all the susceptible animals to the official post-mortem inspection.

The FSS is committed to provide additional resources when necessary for allowing the post-mortem inspection of heads and feet but in certain circumstances the speed of the line may need to be reduced for allowing that inspection.

- FSS verification of FBO controls in slaughterhouses

Slaughterhouses	Cutting plants/Treating Establishments
The OV must verify that the FBO complies with the objectives of the FMD legislation, movement licences and, where applicable the conditions of the FMD authorisation. In particular:	UAIs must be organised for verifying that FBO complies with the objective of the FMD legislation, movement licences and, where applicable, the conditions of the FMD designation. In particular:
FMD designation status of the slaughterhouse.	FMD designation status of the cutting plant.
Movement licences of animals admitted for slaughter.	Traceability documentation of meat received at the establishment.
C and D of ALL the livestock transport vehicles before leaving the establishment.	'Regulated meat' is meat from animals within the designated protection or SZs. Such meat must: o be marked as 'regulated meat' by 'over-stamping' of the Health Mark or Inspection Mark. o be kept separately from other meat at all times o be transported separately and only to designated premises o not be traded or sold in the UK o not be traded with other EU states o not be exported from the EU

Slaughtering of animals no later than 24 hours after unloading.	Full traceability of 'regulated meat'.
'Regulated meat' is meat from animals within the designated protection or SZ. Such meat must: o be marked as 'restricted meat' by 'over-stamping' of the Health Mark or Inspection Mark. o be kept separately from other meat at all times o be transported separately and only to designated premises o not be traded or sold in the UK o not be traded with other EU states o not be exported from the EU	Verification of the destination of all the dispatched 'regulated meat'.
Full traceability of 'regulated meat'	Application of Special Mark to "unregulated" meat – After treatment the meat is considered unrestricted and the "over-stamped" markings can be removed
Verification of the destination of all the dispatched 'regulated meat'.	Adequate handling, storage and disposal of ABP in compliance with designation conditions and FMD Order.
Application of Special Mark to 'unregulated' meat.	For treatment establishments: HACCP-based procedures demonstrating that the treatment complies with the specific legal requirement, and therefore, would ensure that FMD is destroyed.
Adequate handling, storage and disposal of ABP in compliance with designation conditions and FMD Order.	
Adequate handling, storage and disposal of manure in compliance with designation conditions and FMD Order.	

12.5 Animal by-products and co-products

ABPs and co-products produced in PZ or SZ or from	ABPs and co-products other than hides, skins, wool, ruminant hair or pig bristles must not been sold or consigned for sale unless they satisfy one of the following requirements:

animals originating in such zones	• They were produced more than 21 days before the earliest infection date in the PZ, or in the case of a SZ, the associated PZ and at all times stored and transported separately from animal products not so produced. • They have undergone one of the following treatments: ▪ heat treatment in a hermetically sealed container at a level of at least FO3; ▪ heat treatment in which the centre temperature is raised to at least 70°C for at least 60 minutes. • Blood and blood products used for technical purposes have undergone any of the treatments referred to in point B(3)(c)(ii) of Chapter IV of Annex VIII to Regulation (EC) 1774/2002. • Lard and rendered fats have undergone the heat treatment referred to in point B(2)(d)(iv) of Chapter IV of Annex VII to Regulation (EC) 1774/2002. • Petfood and dog chews complying with the requirements of points B(2), (3) or (4) of Chapter II of Annex VIII to Regulation (EC) 1774/2002. • Game trophies of ungulates complying with the requirements of points A(1), (3) or (4) of Chapter VII of Annex VIII to Regulation (EC) 1774/2002. • Animal casings have been cleaned, scraped and either salted with sodium chloride for 30 days or bleached or dried after scraping and were protected from recontamination after treatment. • It forms part of a composite product (that is, a manufactured or processed product containing more than one ingredient at least one of which is an animal product) and each ingredient which is an animal product has been treated as above or was not produced from susceptible animals originating on IP, suspect premises

	or contact premises or in a temporary control zone, protection zone, surveillance zone or vaccination zone.
Hides, skins, wool, ruminant hair and pig bristles produced in a PZ or SZ or from animals originating in such zones	Hides, skins, wool, ruminant hair and pig bristles of susceptible animals originating in a PZ or SZ must not been sold or consigned for sale unless either: • they were produced more than 21 days before the earliest infection date in the PZ, or in the case of a SZ, the associated PZ, and at all times stored separately from hides and skins which were not so produced; or • it has been treated for complying with the requirements in article 20 of Regulation (EC) 1774/2002 and points: ▪ In the case of hides and skins: A(2)(c) or (d) of Chapter VI of Annex VIII to Regulation (EC) 1774/2002 ▪ In the case of wool, ruminant hair and pig bristles: A(1) of Chapter VIII to Regulation (EC) 1774/2002
Manure produced in PZ	Particular controls apply to manure from premises in a PZ where susceptible animals are kept; or collected from vehicles carrying susceptible animals from or within a PZ. It must only be dispatched under a licence granted by an APHA inspector.

12.6 Enforcement Responsibilities

Enforcement	Authority Responsible	Regulation
License Requirements	• Local Authority • FSS staff are authorised to verify compliance with the conditions of the licence. Any suspected NC must be reported to LA Trading Standards Department and the local APHA office. Vet Advisor must be also informed	The Animal Health Act 1981 and the European Communities Act 1972. The Foot-and-Mouth Disease (Scotland) Order 2006 The Foot and Mouth Disease (Slaughter and Vaccination) (Scotland) Regulations 2006 The Foot-and-Mouth Disease (Scotland) Amendment Order 2007
Designated Establishments	• Scottish Government • FSS staff can hold the granting of pre-designations and	

	recommend the suspension or withdrawal of them	The Foot-and-Mouth Disease (Scotland) Amendment (No. 2) Order 2007 Animal Health and Welfare (Scotland) Act 2006 Council Directive 2003/85/EC of 29 September 2003 on Community measures for the control of foot-and-mouth disease repealing Directive 85/511/EEC and Decisions 89/531/EEC and 91/665/EEC and amending Directive 92/46/EEC The Animal Health Act 1981 (Amendment) Regulations 2005 Transport of Animals (Cleaning and disinfection) (Scotland) 2005 Order
C&D	• Additional checks are required to verify compliance with C&D conditions of the licences and authorisations. Where C&D is unsatisfactory, FSS AO must report the incident to LA. Additionally, the breach of terms of their licence under the FMD Order should be enforced	

12.7 Suspected case in slaughterhouse

The actions to be taken by the OV in cases of suspected vesicular diseases found at the ante-mortem or post-mortem inspection are explained in Section 2 (Action on notifiable diseases) of this chapter.

Where the APHA VI is unable to rule out disease during the investigation of a suspected slaughterhouse case, all animals present will be slaughtered quickly and the meat isolated whilst investigations are undertaken.

No meat is allowed to be removed from the premises until the VI is satisfied that meat to be moved is not at risk of spreading FMD virus. Meat, other products and by-products of animal origin that have come from suspected animals, or may have come

into contact with such products or by-products, will be isolated within the slaughterhouse pending the outcome of the investigation.

The place of origin of all animals suspected of being affected by FMD will be investigated. The FBO is advised to detain the meat in suitable conditions to ensure that the meat remains fit for human consumption if disease is negated and the meat is released for sale.

If FMD is confirmed, this meat and any other product or by-product from the animal will be disposed of.

13. Aujeszky's Disease

13.1 Introduction

13.2 National Serum Survey

13.1 Introduction

Aujeszky's disease, also known as pseudorabies, affects pigs. It can also infect cattle, sheep, cats, dogs and rats. It doesn't affect humans.

13.1.1 Clinical signs

Aujeszky's disease affects the nervous system. In piglets, signs include:

- shivering
- loss of coordination
- weak hind legs

The disease is normally fatal for piglets.

In adult pigs, the signs include:

- breathing problems
- fever and weight loss
- pregnant sows may abort piglets, or give birth to weak and shivering piglets

Aujeszky's disease is generally spread by direct, nose to nose, contact between pigs. The virus can also become airborne and spread over longer distances. It can also spread through objects contaminated with the virus.

For more details about Aujesky's disease please visit: Aujeszky's disease: how to spot and report the disease - gov.scot (www.gov.scot)

13.1.2 Legislation

The main disease control legislation for Aujeszky's Disease are the Aujeszky's Disease Order 1983 and the Aujeszky's Disease (Compensation for Swine) Order 1983.

13.2 National Serum Survey

13.2.1 Purpose

To demonstrate continuing freedom from Aujeszky's disease, a serum sample must be submitted for serological examination from every slaughtered breeding boar. All culled breeding boars (excluding those exported from Northern Ireland for slaughter which are uniquely slap marked for identification) are serologically tested as part of the National Serum Survey.

13.2.2 Who collects samples

The OV is responsible for collecting samples or delegating the task to a suitably trained Official Auxiliary.

Sampling equipment can be obtained from the SLA and Contracts team at operations@fss.scot. The equipment for this survey includes ELISA discs, plastic bags, address labels and photographic slide magazines used to dry the discs.

13.2.3 Sampling process

The method for collecting the serum samples is via ELISA discs.

Samples must be obtained from carcases at a sufficient distance from the point of kill when there is no risk from post slaughter carcase movement and from FBO activities. Where possible this should be done at the post-mortem inspection site.

APHA have consulted their pig expert group leader and the lab testing leader and concluded that sampling from the heart is also possible, as a change in the sampling site makes no difference on the test result.

However, they noted that it is important for the sample to be well stored and dispatched without undue delay.

Caution: Avoid contaminating the disc with water or dirt.

The disc should be grasped by the body of the disc and not by the peripheral discs. Dry the saturated discs in the photographic slide magazines provided, ensuring effective separation between discs to prevent cross contamination.

Wash, rinse and dry the photographic slide magazines between uses.

Note: The 'Clotted blood' method of sampling is no longer to be used.

Step	Action
1	Use one *ELISA* disc for each boar. Pre-number the discs.
2	Each peripheral disc must be saturated with blood. Partially saturated peripheral discs are of no use.
3	Place saturated discs in a clearly identified photographic slide magazine. Place discs in every second compartment of the slide magazine to allow effective separation while they dry.
4	Note sufficient information on the sample submission form to identify the owner of each boar.
5	Drying: Discs should be allowed to dry at room temperature, out of direct sunlight, for at least 12 hours. Discs must be completely dry before despatch to the laboratory.
6	Thread the discs onto file tags in a sequence that corresponds with the submission sheet and place into plastic bags for despatch to the laboratory with the completed submission form.

Storage prior to despatch: Prepared *ELISA disc* samples should be stored at 4°C until posted.

For detailed instruction on how to sample please find a guidance in Annex 22

13.2.4 Posting and packaging

The following points are to be observed:

- Samples may be batched and posted weekly (no more than 14 days from sampling to posting).
- 1st class post must be used.
- Each batch of samples must be accompanied by a completed submission form.
- The package must be marked AD SURVEY SAMPLES.
- Avoid posting samples on a Friday as they may be delayed in transit over a weekend.

13.2.5 Submission address

Serum samples from all slaughterhouses must be sent to:

APHA Weybridge
Woodham Lane
New Haw
Addlestone

Surrey
KT15 3NB

13.2.6 Sample submission form

Each sample submission form must provide sufficient information to identify the person who was the owner of each boar at the time that it was consigned to or purchased by the slaughterhouse.

The sample submission form must be completed and printed to go with the samples to APHA.

Note: Ensure each sample is assigned with a sample number and accordingly stated it in the submission form introducing one sample per row.

Retain a copy of each submission form for at least 1 year.

The form can be found at Annex 23.

13.2.7 Sample recording

Record of samples submitted for the Aujeszky's disease survey must be entered into the FSS Sample Request module on OWS – choose "Aujeszky's disease" from drop-down menu.

13.2.8 Results

Results are reported to Defra and SLA and Contracts team. The SLA team will correlate the results and cascade them.

14. Annexes

Annex 1 AN24 – Form A: Notice

Annex 2 AN1 – Report

Annex 3 AN2 – Certificate

Annex 4 BS112 – Licence

Annex 5 BS15B – Notice

Annex 6 EBL9 – Licence

Annex 7 EBL7 – Submission form

Annex 8a CS117 – TB/ EBL FSS consumables for other red meat abattoirs form

Annex 8b CS118 – TB/ EBL FSS consumables for APHA contracted abattoirs

Annex 9 Sample: TB24

Annex 10 Sample: TB24c

Annex 11 Sample: TB16b

Annex 12 TB24b

Annex 13 Sample: TB24g

Annex 14 Sample: TB104

Annex 15 Sample: TB110 Reactor sampling and submission form

Annex 16 Sample: TB50

Annex 17 Sample: TB24a

Annex 18 Sample: TB55a

Annex 19 CS115 – DNA equipment form

Annex 20 Material for DNA analysis

Annex 21 Sample Booking Despatch Process

Annex 22 Aujeszky's Disease Sampling Guidance

Annex 23 Aujeszky's Disease Sampling Submission Form

Annex 24 Specific licence – movement of poultry to slaughter from premises in a PZ or SZ

Annex 25 AI Application for Pre-Designation

Annex 26 AI Confirmation of Pre-Designation Level 1

Annex 27 AI Confirmation of Pre-Designation Level 2

Annex 28 AI Annual Designation Review

Annex 29 AI Activation of Designation

Annex 30 Application for pre-designation of SH/GHE/CP for Swine Fevers

Annex 31 Swine Fevers Designation Review

Annex 32 Application for pre-designation of SH for bluetongue