

Generic Contingency Plan for an Outbreak of a Notifiable Animal Disease

Annex B

Foot and Mouth Disease

Issue 1 – July 09

Contents

The contents of Annex B on Foot and Mouth Disease **must** be read in conjunction with the Isle of Wight Council Generic Contingency Plan for an Outbreak of a Notifiable Animal Disease.

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1. Introduction

Annex B only contains information that is applicable during an outbreak of Foot and Mouth Disease. All structures, stakeholders, roles and information that are relevant to all notifiable animal diseases are contained within the main generic contingency plan.

1.1 Foot and Mouth Disease

Foot and Mouth Disease (FMD) is an infectious viral disease that affects all cloven-hoofed animals, particularly cattle, pigs, sheep, goats and deer. The disease is serious for animal health and for the economics of the livestock industry. It is one of the most infectious animal diseases. While FMD is not normally fatal to adult animals, it is debilitating and causes loss of productivity, for example milk yields may drop or the animals may become lame, these effects may be permanent. In young animals it can be fatal on a large scale.

1.2 Risk of Foot and Mouth Disease Spreading to the UK

The UK remained free from FMD for many years, but suffered an outbreak in 2001. Between February and September of that year, 2,030 cases occurred in the UK. The causal agent for this outbreak has been identified as Type 0 Pan Asia strain.

In August and September 2007 there were eight confirmed cases of Foot and Mouth Disease in a localised area in the south-east of England. The source of this outbreak was the research laboratories at Pirbright in Surrey. Pirbright was the only known UK location where the strain concerned; O1BFS 1860, is held.

In Britain the disease primarily arises as a result of imported infection. FMD is endemic in Africa, Asia and parts of South America, with sporadic outbreaks in disease-free areas. Therefore, the principle risk of the disease entering the UK is through illegal imports. This of course could happen at any time. The EU and the UK have enhanced their controls on imports of illegal meat and meat products to reduce the risk, however this risk cannot be totally eliminated.

1.3 Human Health Concerns

Advice from the Department of Health is that it is extremely rare for humans to contract FMD. There has only been one recorded incident of FMD in a human in the UK and this was during the outbreak of 1966. The general effects of this case were similar to influenza with some blisters.

The Food Standards Agency has advised that FMD in animals has no implications for the human food chain.

There is, however, a human condition called Hand, Foot and Mouth Disease, which is unrelated and which does not affect animals.

1.4 Isle of Wight Council Generic Contingency Plan for an Outbreak of a Notifiable Animal Disease

The contents of Annex B on FMD **must** be read in conjunction with the Isle of Wight Council Generic Contingency Plan for an Outbreak of a Notifiable Animal Disease (hereafter referred to as the Generic Plan).

Annex B only contains information that is applicable during an outbreak of FMD. All structures, stakeholders, roles and information that are relevant to all notifiable animal diseases are contained within the main Generic Plan.

Further details are also available in the Exotic Animal Disease Generic Contingency Plan produced by Defra. This is available at http://www.defra.gov.uk/animalh/diseases/control/contingency/exotic.htm

1.5 Overview of Local Authority Role

FMD is a notifiable animal disease.

Local authorities will perform a range of essential duties in the event of a FMD outbreak. The role played by the local authority will be key in the effective control and eradication of a disease situation, and in ensuring that the needs of the local community are provided for. The Secretary of State has a certain degree of flexibility in terms of the control measures depending on the circumstances of the disease outbreak. Therefore local authorities are strongly advised to carefully examine individual Declaratory Orders.

The basic disease control policy is slaughter of all susceptible animals on premises infected with FMD, and dangerous contacts. Movement restrictions are also put in place to help contain the disease. Biosecurity is of paramount importance in control of FMD.

The animal health and welfare enforcement function within local authorities will perform a range of key duties in the event of a confirmed case of FMD. Local authorities are responsible for enforcing the Foot and Mouth Disease (England) Order 2006, which outlines the controlled zones and restrictions upon the movement of animals and animal products in the event of a FMD situation. The Order also includes requirements relating to disinfection of premises and equipment, maintenance of records and introduces a number of treatments that have to be applied to meat and other animal products from infected areas.

Local authorities will also play an essential role in ensuring that their communities are effectively made aware of the exact current situation and any restrictions upon activities, without causing concern or panic. This role must be fulfilled through all feasible avenues, but particularly the animal health and welfare, emergency planning and communications functions.

2. Epidemiology

2.1 Definition

FMD is an acute infectious disease, which causes fever followed by development of vesicles (blisters), chiefly in the mouth and on the feet. The disease is caused by a virus, of which there are 7 types. Each type causes similar symptoms and they are only distinguishable in the laboratory. The 7 serotypes are; 0, A, C, SAT1, SAT2, SAT3 and Asia 1. The strain that affected the UK in 2001 was identified as the 0 pan Asia strain and during 2007 the UK experienced the O1BFS 1860 strain.

FMD is probably the most infectious disease infecting either man or animals, and can spread rapidly. Therefore it is important to gain control of the disease as quickly as possible. Among farmed animals, cattle, sheep, pigs, goats and deer are susceptible. Hedgehogs, rats and any wild cloven-footed animals can also contract it.

The incubation period, the interval between exposure to infection and the appearance of the disease varies between 24 hours and 10 days, or even longer. The average time, under natural conditions is 3 to 6 days.

2.2 After-Effects of the Disease

FMD is rarely fatal, except in very young or old animals. The disease normally runs its course in 2 – 3 weeks, after which most animals recover. However, affected animals lose condition and secondary bacterial infections may prolong the recovery period. FMD therefore has serious economic consequences. The most severe consequences are seen in dairy cattle. Milk yield will be reduced, chronic mastitis may develop and the value of the cow will be permanently reduced. Cattle may also experience abortion, sterility, chronic lameness and chronic heart disease.

2.3 Transmission

FMD is highly contagious and a very small quantity of virus is capable of infecting an animal. The virus is present in great quantities in the fluid in the blisters that the disease causes. It can also occur in the saliva, milk and dung. At the height of the infection the virus will be present in the blood and all parts of the body. Contamination of objects with any discharges from an infected animal is a danger to other stock. Under favourable conditions, cool and dark, the virus can survive for long periods.

Airborne spread of the disease can also occur and under favourable climatic conditions the virus can spread considerable distances. Indeed circumstantial evidence suggests that the outbreak on The Isle of Wight in 1981 was caused by airborne transmission of the virus from Brittany in northern France.

Animals pick up the virus either by direct contact with an infected animal, by contact with foodstuffs or other objects that have had contact with an infected

animal, or by eating or coming into contact with the carcase of an infected animal.

Lorries, loading ramps and market places where infected animals have passed have the potential to cause infection until disinfected, as do the boots, clothes and hands of stockmen who have been in contact with infected animals. Even roads can become contaminated and the virus could be picked up on the wheels of passing vehicles. Dogs, cats, poultry, wild game and vermin can also carry the infection.

As it can be seen, FMD is highly infectious and would easily and quickly spread around the country if a disease control strategy were not put in place.

2.4 Clinical Signs

Affected animals display blisters (vesicles) on the feet or in the mouth. Other symptoms depend on the species of animal that is affected.

More information on symptoms as well as pictures of infected cattle, sheep, goats and pigs are available at:

www.defra.gov.uk/footandmouth/about/clinical.htm

2.4.1 Clinical Signs in Cattle

Symptoms in cattle are summarised as follows:

- Vesicles on the feet and in the mouth (tongue, gums, lips)
- Slobbering and smacking of the lips,
- Shivering,
- Tender and sore feet,
- Sudden drop in milk yield,
- Raised temperature.

In the early stages the animal will be off its food, cudding may cease, it may be blowing slightly and have a staring coat. An animal at pasture will stay away from the rest of the herd and will probably lie down. Blisters usually begin to appear within a few hours, most frequently on the upper surface of the tongue and the bulb of the heel. There is quivering of the lips and uneasy movement of the jaw, with copious frothy saliva produced.

At about the same time there is evidence of pain in the feet. The animal lies down constantly and walks very tenderly if forced to move, occasionally shaking a leg. Loss of condition is marked. Cows and heifers may also develop blisters on the teat and resent attempts at milking.

Examination of the mouth in the early stages will show the blisters. These can be found on the upper surface of the tongue, the dental pad, inside the lips and sometimes on the muzzle. Initially blisters appear as small raised areas, whitish in colour and containing fluid, they quickly increase in size until they may be the size of half a walnut. Two or more blisters may join to form a

larger one, sometimes covering half the tongue surface. As the disease progresses, the blisters burst and collapse leaving the skin loose and wrinkled with a dead appearance. On handling the skin is easily removed leaving a raw surface. Once the blisters have burst the temperature of the animal falls, pain decreases and the animal may begin eating again.

Blisters on the feet develop at about the same time as the ones in the mouth, or a little after, they rarely develop before. Typically they occur on the bulbs of the heel, at the front of the cleft of the hoof and in the cleft itself. The blisters on the feet usually burst fairly quickly due to movement of the feet, and then appear as a ragged tear exposing a raw surface.

2.4.2 Clinical Signs in Sheep/Goats

The symptoms in sheep and goats are summarised as follows:

- Vesicles may be found on the hoof where the horn joins the skin which may extend all round the coronet and in the cleft of the foot,
- When vesicles have burst the horn is separated from the tissues underneath and hair around the hoof may appear damp,
- Vesicles on the dental pad and sometimes the tongue.
- Sudden severe lameness,
- Lies down and unwilling to rise,
- When made to rise, stands in half-crouching position, with hind legs brought well forward and reluctant to move.

The principal symptom is sudden severe lameness affecting one or more legs. The animal will look sick, lie down frequently and be very unwilling to rise. Usually the disease affects all four legs resulting in the half-crouching position which is adopted when made to stand.

Mouth symptoms are not often noticeable in sheep, when they do occur blisters affect the dental pad and sometimes the tongue.

2.4.3 Clinical Signs in Pigs

The symptoms in pigs are summarised as follows:

- Vesicles form on the upper edge of the hoof, where the skin and horn meet, and on the heels and in the cleft,
- Vesicles may extend right round the top of the hoof causing the horn to become separated,
- Vesicles may form on the snout or on the tongue,
- Sudden lameness,
- Prefers to lie down,
- When made to move squeals loudly and hobbles painfully.

The principal symptom is sudden lameness and the animal prefers to lie down, although the lameness may not be so apparent when the animal is on deep bedding or soft ground.

Mouth symptoms are not usually apparent but blisters may appear on the mouth or tongue.

Swine Vesicular Disease has identical symptoms to FMD, therefore any suspected cases of Swine Vesicular Disease must be treated as suspect FMD until laboratory tests have shown otherwise.

2.5 Main Aspects of Disease Control

In Great Britain the accepted disease control strategy involves:

- Slaughter
- Disinfection
- Movement control
- Option of vaccination

In tackling any fresh outbreaks of FMD the Government's objectives will be to eradicate the disease as quickly as possible and re-establish the UK's disease free status.

EU Directive 2003/85/EC sets out the measures to control FMD. The basic disease control policy required under the Directive is the slaughter of all susceptible animals on premises infected with FMD and animals identified as 'dangerous contacts'. Dangerous contacts are animals which have been exposed directly or indirectly to the risk of infection, either by movements of vehicles, people or animals, or by their proximity to a confirmed case.

Following slaughter, preliminary cleansing and disinfection of the affected premises takes place. Restrictions will be placed on the movement of animals in an area of not less than 10 Km radius around the infected place. Movement of animals within and into this area will be restricted and movement of animals out of this area will not be permitted.

The Directive does place prominence on the use of emergency vaccination in the event of a FMD outbreak and the Government will consider the use of emergency vaccination, based on emerging epidemiological and logistical factors, as soon as the first case of FMD is confirmed.

3. Legislation

The overarching requirements of the Civil Contingencies Act 2004, the Animal Health Act 1981 as amended by the Animal Health Act 2002 and the European Communities Act 1972, are detailed in the Generic Plan. **The legislative information provided within this Annex relates specifically to FMD.**

Please note that during an FMD outbreak, Defra are likely to produce a regularly updated movement matrix on their website, covering the various movement controls and movements permitted under the legislation.

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

The Act provides for the control of outbreaks of animal diseases, including FMD. This includes the slaughter of any animals for the purposes of preventing the spread of foot and mouth disease, regardless of whether it is confirmed that they have been exposed to the disease or are suspected of having been. This allows for the slaughter of stray animals where it is not clear where they have come from or what other animals they have been exposed to. The Act as amended also allows animals to be slaughtered wherever necessary to prevent the spread of disease (a 'firebreak' cull).

Council Directive 2003/85/EC

The Directive sets out minimum control measures Member States must take against FMD and allows stricter measures to be taken if the disease situation requires it. It requires rapid action to be taken if disease is suspected, including, movement controls. The basic disease control strategy is the slaughter of all animals on an infected premises and those identified as 'dangerous contacts'.

The ban on prophylactic (routine) vaccination is maintained but emergency vaccination is given prominence as a potential disease control strategy in the event of an outbreak.

Other measures in the Directive include:

- Provision for the adoption of 'special measures' to be applied to premises such as zoos, wildlife parks and laboratories and to allow for the conservation of farm animal genetic resources. These measures may include protective emergency vaccination and protection from emergency slaughter.
- The requirement for a Member State 'to prepare all arrangements necessary for emergency vaccination in an area at least the size of the Surveillance Zone' as soon as the first case of FMD is confirmed.
- Details of the treatment required, for animal health reasons, to meat and meat products and milk and milk products from the Protection, Surveillance and Vaccination zones.

EU Directive 2003/85/EC has been transposed into domestic legislation with three separate pieces of legislation:

- The Animal Health Act 1981 (Amendment) Regulations 2005
- The Foot and Mouth Disease (England) Order 2006
- The Foot and Mouth Disease (Control of Vaccination) (England) Regulations 2006

The Animal Health Act 1981 (Amendment) Regulations 2005

These take account of the Directive by making a minor technical amendment to the Animal Health Act 1981 to change the Secretary of State's previous discretion to slaughter any animals affected by FMD to a duty to slaughter all susceptible animals, but only on an infected premises. The Regulations also allow certain exceptions to this duty to slaughter in laboratories, zoos, wildlife parks, rare breeds and separate production units.

The Foot and Mouth Disease (England) Order 2006

This transposes the bulk of the EU Directive, as well as some additional provisions preserved from the Foot and Mouth Disease Order 2003, which is now repealed. Slaughter of susceptible animals on infected premises remains the principal tool for controlling a FMD outbreak. The Order sets out the procedures and controls required on suspicion and confirmation of FMD, and provides for the creation of a number of zones providing different levels of control. The Order also introduces a number of treatments, such as heat treatment (cooking), deboning and maturation that have to be applied to meat and other animal products from an infected area.

The Foot and Mouth Disease (Control of Vaccination) (England) Regulations 2006

These Regulations transpose the vaccination provisions of the Directive. The Regulations allow vaccination as an acceptable disease control strategy in addition to the slaughter policy. The Regulations prohibit vaccination except under licence by the Secretary of State and they also ban the export of vaccinated animals to other EU Member States. The Regulations provide for control zones both where vaccination takes place, and where it is expressly prohibited. The Regulations also introduce treatments for meat and other animal products from vaccinated animals.

The Foot and Mouth Disease (Packing Materials) Orders, 1925 and 1926

These require hay and straw which has been used as packing to be kept away from all animals and to be destroyed, unless it is used again as packing or returned in a crate or box to be used so again. No trees or plants etc packed in straw or hay may be exposed for sale or stored in any place near where animals are exposed for sale.

The Transport of Animals (Cleansing and Disinfection) (England) (No 3) Order 2003, as amended

This Order requires that vehicles and equipment used to transport animals must, with very few exceptions, be cleansed and if necessary disinfected, after the animals have been unloaded and before any further animals are loaded. This is one of the main principles of disease prevention.

Any outbreak of Foot and Mouth Disease will also impact on certain existing rules. For example the movement of carcasses (other than from infected premises, dangerous contact premises etc) for correct disposal will be banned (Animal By-Products Regulations 2005). Plus the opportunity to move livestock in extreme welfare cases will be similarly banned (Animal Welfare Act 2006).

4. Wider Stakeholders – FMD

Key stakeholders and wider stakeholders that are relevant to all notifiable animal health diseases are listed within the Generic Plan. This section only outlines wider stakeholders that may be of relevance during an outbreak of FMD.

There are a number of national associations that represent breeders and keepers of animals that are susceptible to FMD. In particular there are a vast number relating to specialist breeds. It is recommended that local authorities make contact with any local branches of the main associations. It is also recommended that authorities make contact with any other hobbyist or specialist associations operating within their area.

The majority of areas will have their own smallholders association. Details can frequently be located on the internet, and authorities should make contact with these.

Some associations that may have local branches include:

Royal Association of British Dairy Farmers

http://www.rabdf.co.uk/mainnavigationpage/index2.html

The Royal Association of British Dairy Farmers is an independent, specialist sector body dedicated to representing the interests of practical British Dairy farmers. The association has County representatives.

The National Sheep Association

http://www.nationalsheep.org.uk/

The National Sheep Association aims to promote and represent the sheep industry to others. The association does have regional branches.

The British Pig Association

http://www.britishpigs.org.uk/about.htm

The British Pig Association registers pedigree pigs and represents the interests of pedigree pig breeders.

National Pig Association

http://www.npa-uk.net/

The National Pig Association is active on behalf of its members for the growth and prosperity of the British Pig industry.

5. Overview of Disease Stages and Controls

The following diagram details the various stages of a Foot and Mouth Disease outbreak, and the restrictions that would be applied under The Foot and Mouth Disease (England) Order 2006.

Notification (Part 2)

Anyone who knows or suspects that FMD exists must notify Animal Health

Measures applicable in respect of a Temporary Control Zone (Article 17)

No person shall move a susceptible animal into or out of a TCZ except where the movement is through the zone without stopping or is to finish a journey started before the creation of the zone.

Susceptible animals cannot be moved to and from premises within the zone except to complete a journey started before the creation of the zone, or under a licence. However, Secretary of State may not apply this, but may apply other measures instead, including that all premises in the zone where susceptible animals are kept shall keep records and that susceptible animals shall be kept isolated.

Suspicion (Part 2)

Where an inspector knows or suspects that FMD exists or has existed in the previous 56 days, or knows or suspects that an animal is contaminated, he shall serve a notice on the occupier of the premises (Article 10). The requirements in Schedule 1 of the Order shall apply to the premises.

If an inspector knows or suspects that an animal in transit is affected he shall serve a notice on the person in charge of the vehicle (Article 11). The vehicle shall be directed to a premises, the occupier of this premises shall also be served with a notice and the requirements of Schedule 1 shall apply.

The Secretary of State shall declare a Temporary Control Zone (Article 16) and the measures in Article 17 shall apply. The Secretary of State may also declare a Supplementary Control Zone (Article 19)

Schedule 1 - Measures applicable on premises where FMD suspected or confirmed

- Maintain a record of animals, including deaths
- · Display signs
- Isolate susceptible animals
- Restrictions on movement of animals, fodder, persons, vehicles and other things likely to spread disease.
- Where appropriate clean clothing and remove dirty clothing before entering or leaving
- Set up C&D points at entrances
- Control rodents

Veterinary Inquiry (Part 2)

The Chief Veterinary Officer shall ensure that the presence or suspicion of infection or contamination is investigated by a veterinary inspector. This includes tracing of possible disease spread.

Schedule 3 – Cleansing and disinfection of premises

Part 1 – General procedures for cleansing and disinfection of premises

Part 2 – Cleansing and disinfection of infected premises

Part 3 – Disinfection of contaminated used litter, manure and slurry

Measures following Confirmation of FMD (Part 3)

Animals will be slaughtered. Carcasses, faecal material and other things liable to spread disease will be subject to controls. The Secretary of State shall ensure that premises are cleansed and disinfected. Products from infected premises shall be traced.

Provisions in Schedule 4 for restocking of premises apply.

Schedule 5, Parts 1 and 2 – Measures in the Protection Zone

- Keep records
- Keeper of a susceptible animal shall prevent it straying and an inspector may detain any stray or feral animal
- Dogs and poultry must be kept under control
- Except in certain circumstances sheep dipping and shearing requires a licence
- Except in certain circumstances ultrasound scanning of sheep requires a licence
- Restrictions on movement of semen, ova, embryos, hides and skins of susceptible animals originating in zone.
- Restrictions on wool, ruminant hair and pig bristles from animals originating in zone
- Restrictions on other animal products produced in the zone or from animals originating in the zone
- Restrictions on movements of susceptible animals from or to premises in the PZ
- Restrictions on movements of animals from or to premises in the PZ where susceptible animals are kept
- Restrictions on movement of animals into or out of a PZ
- Movement of animal transport vehicles from a premises in a PZ where susceptible animals are kept requires a licence
- No person shall hold an animal gathering
- Controls on gatherings of people
- Controls on breeding of susceptible animals
- Private slaughter of susceptible animals prohibited
- Licence required to transport fodder
- Restrictions on the sale of fodder originating in a PZ
- Restrictions on the transport, treatment and spreading of dung and manure produced in a PZ
- Restrictions on the sale of fresh meat derived from susceptible animals originating in a PZ
- Restrictions on sale of fresh meat derived from susceptible animals on premises in the PZ
- Restrictions on sale of meat products derived from susceptible animals originating in a PZ
- Restrictions on milk and milk products

Infected Area – Declaration of Protection and Surveillance Zones

The Secretary of State shall declare an area to be a Protection Zone (Articles 31 and 32). This shall be centred on the infected premises and have a radius of at least 3Km. The measures in Parts 1 and 2 of Schedule 5 apply in the PZ.

The Secretary of State shall declare an area to be a Surveillance Zone (articles 31 and 32). This shall be centred on the same premises and have a radius of at least 10Km. The measures in Parts 1 and 3 of Schedule 5 apply in the SZ.

The Secretary of State shall also declare a Restricted Zone if the CVO advises that this would prevent disease spread (Article 39). This is of such size as considered necessary. In addition to any other measures, the measures in Schedule 7 apply in the Restricted Zone.

Where the disease is confirmed in a wild animal, a Wild Animal Infected Zone shall be declared (Article 40). In addition to any other measures, the measures in Schedule 8 shall apply.

Lifting Restriction

Restrictions will continue to apply until the declaration creating the PZ, SZ or other restricted zones is amended or revoked in accordance with Article 37.

Schedule 5, Parts 1 and 3 – Measures in Surveillance Zones

- Keep records
- Keeper of a susceptible animal shall prevent it straying and an inspector may detain any stray or feral animal
- Dogs and poultry must be kept under control
- Except in certain circumstances sheep dipping and shearing requires a licence
- Except in certain circumstances ultrasound scanning of sheep requires a licence
- Restrictions on movement of semen, ova, embryos, hides and skins of susceptible animals originating in zone.
- Restrictions on wool, ruminant hair and pig bristles from animals originating in zone
- Restrictions on other animal products produced in the zone or from animals originating in the zone
- Restrictions on movement of susceptible animals from premises in the SZ
- Controls on certain gatherings of animals and people in the SZ
- Restrictions on sale of fresh meat from susceptible animals originating in SZ
- Restrictions on sale of fresh meat produced on premises in SZ
- Restrictions on sale of meat products derived from susceptible animals originating in SZ or produced on SZ premises
- Restrictions on sale of milk and milk products produced from susceptible animals originating in SZ or on premises in SZ
- Restrictions on collection, transport and processing of raw milk produced in SZ
- Controls on transport, treatment and spreading of dung and manure produced in SZ

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6. Plan Implementation – Local Authority Functions and Responsibilities

The Generic Plan template includes an overview of each key local authority function throughout a disease outbreak, including job specifications. It also contains a summary of key actions to take within the first 24 hours of an animal disease outbreak and a template agenda for initial meetings.

However, the role performed by the Animal Health and Welfare Enforcement Inspector will change in consideration of legislative duties, and the operational requirements that are unique to each disease. As a result each individual annex includes further details of what is required from that role in consideration of the unique requirements of each disease.

The details provided below must be utilised in conjunction with the Generic Plan.

6.1 Animal Health and Welfare Enforcement Function— Foot and Mouth Disease

6.1.1 Initiation and Activation – Foot and Mouth Disease

The principal consideration for local authorities in the event of an FMD outbreak will be effective enforcement of movement controls (including those of people onto suspect/infected premises), cleansing and disinfection requirements and advising/enforcing the many other restrictions contained within the FMD Order. This reflects the national control policies in order to prevent spread of disease;

- slaughter,
- disinfection and
- control of movements.

Upon confirmation of FMD it is likely that there will be an immediate GB wide ban on movement of susceptible species.

In the early stages of an outbreak, local authorities and the police will play an important role in enforcement of a movement ban. Authorities should;

- ensure sufficient resources are deployed to carry out this function.
- quickly assess if they have sufficient capacity to effectively enforce the movement restrictions and the ability to advise on the other restrictions
- consider seconding animal health staff from other local authorities.
 (Refer to the LACORS Guidance on Secondment of Officers During an Animal Disease Outbreak,

http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=14916&docType=C

- establish effective communication with their local communities
- establish strong communication/liaison links with Animal Health
- establish effective communication channels with the farming industry

Local authorities must remain aware that there will be immediate extensive interest in any suspect and confirmed cases of FMD in view of the widespread media coverage during the 2001 and 2007 FMD outbreaks, It is therefore essential that all local authority staff aim to ensure that all communication with the public is accurate and prevents widespread panic.

6.1.2 Management and Control – Foot and Mouth Disease

Animal Health will take the lead in visiting and carrying out enforcement at all suspect premises and any dangerous contact premises that have been identified. Local authorities should not knowingly enter premises with confirmed or suspected FMD. This is because officers would not then be able to visit other farm premises for 72 hours afterwards in order to prevent possible spread of the disease. Local authorities must be prepared to deal with reported breaches of the controls and be ready to close any rights of way that cross suspect or infected premises. These rights of way should only be re-opened if the disease is confirmed as not being present.

It is likely that the policy advice and general information made available by Defra/LACORS will change rapidly in the event of a FMD outbreak. Local authorities must maintain proactive awareness of the current situation and guidance through the Defra and LACORS websites. It is suggested that a designated Officer is given responsibility for routinely checking these websites for updated information.

6.1.3 Animal Health and Welfare Inspector Job Specification – Foot and Mouth Disease

In the event of an outbreak of FMD it is likely that the local authority will require a number of individuals to fulfil the role of Animal Health and Welfare Inspector.

The information below must be viewed in conjunction with the Generic Plan. The job description below aims to provide further details about the activities to be carried out by an Animal Health and Welfare Inspector that are unique to an outbreak of FMD.

The other job specifications outlined within the generic plan remain essentially the same for all disease situations.

Key Responsibilities - Including Specific FMD Information		
1.	Enforcement of Animal Health and Welfare Legislation	
	This specifically relates to the enforcement of The Foot and Mouth	
	Disease (England) Order 2006, though local authority animal health	
	and welfare Inspectors must always remain aware of all animal	
	health and welfare legislative responsibilities.	
2.	Enforcement of Movement Restrictions	
	Local authorities are responsible for monitoring and enforcing all	
	control measures including the movement restrictions in The Foot	

and Mouth Disease (England) Order 2006. These cover movement of live animals, animal products such as meat and milk, fodder and dung. The animal health and welfare Inspector will be responsible for completing patrols, responding to intelligence and enforcing as appropriate. For this to be effective it is vital that inspectors have up to date information regarding emerging suspect/infected premises, changes to the control zones and changes to the licensing regime.

The approach taken to the enforcement of movement restrictions will depend considerably upon the extent of the disease situation, the make up of the local farm population and the range of premises/businesses involved. Local authorities must work in partnership with the Local Disease Control Centre (LDCC) to review priorities and resource requirements. Animal Health and the local police force will be key partners in this area of work.

3. Contribution to the issuing of Notices and Individual Movement Licensing (if required).

The Foot and Mouth Disease (England) Order 2006 provides powers to inspectors to issue Notices and also allows for movement licensing to take place for a range of specific requirements, and more general needs as the disease situation is controlled. The issuing of such licences will be based upon a veterinary decision, and therefore Animal Health will take the lead in this work.

The majority of movements are likely be covered by various general movement licences based on veterinary risk, with the latest versions available via the Defra website.

4. Monitoring Cleansing and Disinfection Requirements

Local authorities are responsible for enforcing the cleansing and disinfection requirements of The Foot and Mouth Disease (England) Order 2006. This is principally under Article 45; cleansing and disinfection of vehicles transporting susceptible animals, but there are also requirements within Schedules 5, 7 and 8 and other specific Articles.

Due to the highly contagious nature of FMD, ensuring consistently high levels of biosecurity is paramount. During any farm visits or market inspections for example, local authorities will be expected to both demonstrate and enforce bio-security conditions, including the use of appropriate clothing and equipment.

Cleansing and disinfection should be carried out in accordance with Schedule 3 and Article 8, and with regard to Schedule 2 of the Transport of Animals (Cleansing and Disinfection (England) (No. 3) Order 2003, and also with regard to any advice and information issued by Defra on biosecurity, cleansing and disinfection of livestock vehicles and approved disinfectants. This information is available on Defra website and links are in Section 8 of this Annex.

5. Erection of Signs

Local authorities have a duty, under Article 44, to erect signs at the

boundaries of declared zones.

In addition to this, inspectors (following guidance) should consider erecting closure notices on rights of way that cross suspect/infected premises so as to prevent unwitting breaches by the public of Sch 1, paragraph 7 restrictions. This is assuming that the permission in the following paragraph has not been given.

Subject to certain conditions (including written consent from the Secretary of State), an inspector can place signs prohibiting access to land in a Protection Zone, including public footpaths and common land (Article 36).

LACORS has produced guidance on production and erection of signs and this is available on LACORS' website http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=15694&docType=C

6. Detention of Stray Animals

An inspector may detain any stray or feral susceptible animal found in a Protection Zone, Surveillance Zone, Restricted Zone or Temporary Control Zone. Animal Health personnel can then slaughter these animals under the Animal Health Act (Paragraph 3, Schedule 3). It will be important to liaise at a local level with Animal Health to agree an approach on detention and slaughter of stray animals.

7. Tracing Of Animal Products

Local authorities may be required to assist Animal Health in the tracing of milk, meat and other animal products from animals originating on infected premises (Article 21).

8. Dissemination of Guidance and Information

Animal Health and Welfare Inspectors will need to ensure that accurate guidance and information is provided to members of the community, including provision of leaflets or letters during all intelligence and enforcement work. Section 7 of this Annex provides some further information on producing advice leaflets/letters.

6.2 Other Local Authority Services – Foot and Mouth Disease

The Generic Plan includes an overview of each key local authority function throughout a disease outbreak, including animal health and welfare enforcement, highways and footpaths, communications and emergency planning. The outline for each function also includes job specifications.

Specifically in terms of an FMD outbreak, the local authority may wish to establish a hotline and/or page on their website dedicated to footpath and rights of way issues. This could help ensure high levels of compliance with any footpath or common land closures. Authorities should consider that prior written consent is required from the Secretary of State in order to prohibit entry onto land. However, rights of way that cross suspect/infected premises must receive special attention and consideration should be given to their immediate closure upon receipt of information from Animal Health/Defra. The

impact on the countryside and local economy should also be carefully considered when proposing footpath or common land closures.

Liaison between all services is therefore vitally important to ensure that the approach to disease management is joined up, considers the needs of the local community and aims to maintain access to the countryside and promote tourism and local businesses.

Communication with local residents is therefore also of paramount importance. Emergency Planning and Communications services must remain aware that accurate and timely communication with local residents will be a key function.

It must to be borne in mind, that where premises have been put under restrictions, if a livestock keeper doesn't elect to restock, then the premises are likely to remain infected for a year, with the ongoing need for enforcement.

6.2.1 Stand Down and Recovery - Foot and Mouth Disease

Due to the nature of FMD and the potential impact on the local economy, a Strategic Recovery Group should be established. This should comprise of representatives from services across the local authority, and could even engage the local community, for example tourism, business and industry groups. The Strategic Recovery Group should continue to monitor the economic status of the local area with a view to ensuring satisfactory recovery.

Other local authority services should also follow the stand down and recovery procedures laid down in the Generic Plan.

7. Useful Information and Advice

7.1 Advice on Writing Public Information and Advice Leaflets/Letters

Due to the flexibility that the Secretary of State has to introduce control zones and different measures within these zones, it is difficult to centrally produce template advice leaflets/letters. Local authorities will also wish to tailor the advice and information to reflect priorities in their own local area. However, this section contains advice on the type of information that could be included within advice leaflets or letters. The content of such leaflets or letters must be agreed locally with Animal Health.

When drafting information or advice, particular regard should be paid to the contents of the Declaratory Order.

Information and advice leaflets could include:

- Information on the declared zones, including a link to Defra website
- Clinical signs of FMD. If there is a particular type of animal predominately farmed in the area then this information could be restricted to, or focussed on that species.
- Advice on contacting Animal Health if suspect livestock are affected.
- Movement restrictions. This should include a link to information and General Licences on Defra website. It might be possible to include a list of General Licences available, although it will not be possible to provide information on all types of movement restrictions.
- Cleansing and disinfection/biosecurity requirements
- Practical advice on biosecurity.
- Requirements to keep records
- Importance of preventing animals from straying and of keeping poultry and dogs under control.
- Requirements for horse keepers
- Controls on animal gatherings and gatherings of people.
- Controls on sheep dipping, shearing and ultrasound scanning.
- Contact details for local authority, including specifically Animal Health and Welfare Enforcement Team, Local Animal Health Office.
- Details of local authority and Defra websites.
- List of frequently asked questions, see below.

7.2 Frequently Asked Questions

The following information is largely from Defra website.

The nature of the disease

What is it?

Foot-and-mouth disease (FMD) is an acute infectious disease, which causes fever, followed by the development of vesicles (blisters) – chiefly in the mouth and on the feet. The disease is caused by a virus of which there are seven types, which produce similar symptoms and can only be differentiated in the laboratory.

How is it spread?

The virus is present in great quantity in the fluid from the blisters, and it can also occur in saliva, milk and dung. Contamination of any objects with any of these discharges is a danger to other stock. At the height of the disease, virus is present in the blood. Infected animals begin by excreting the virus a few days before signs of the disease develop. Pigs in particular produce large numbers of virus particles.

Airborne spread of the disease can take place and under favourable climatic conditions the disease may be spread considerable distances by this route. For example, circumstantial evidence strongly suggests that the outbreak on the Isle of Wight in 1981 resulted from the airborne spread of the virus from Brittany in northern France.

Animals 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 such an animal, or by eating or coming into contact with some part of an infected carcase. In the past, outbreaks of the disease have been linked with the importation of infected meat and meat products.

The disease is spread mechanically by the movement of animals, persons, vehicles and other things which have been contaminated by the virus. Trailers, lorries, market places, and loading ramps – in or over which infected animals have travelled – are dangerous until disinfected. Roads may also become contaminated and virus may be picked up and carried on the wheels of passing vehicles.

The boots, clothing and hands of a stockman who has attended diseased animals can spread the disease and dogs, cats, poultry, wild game and vermin may also carry infection.

Which countries have recently had FMD?

FMD is endemic in parts of Asia, Africa and the Middle East. An outbreak of the disease occurred in England in August and September 2007. Cases of FMD were reported in Botswana, Egypt, China, Nigeria, Palestine and Kazakhstan during 2008.

For up-to-date information local authorities should consult http://www.defra.gov.uk/animalh/diseases/notifiable/fmd/index.htm

Can people contract the disease?

Advice from the Department of Health is that it is very rare. There has only been one recorded case of FMD in a human being in Great Britain and that was in 1966. The general effects of the disease in that case were similar to influenza with some blisters. It is a mild short-lived, self-limiting disease. The Food Standards Agency has advised that the disease in animals has no implications for the human food chain.

There is, however, a human condition called Hand, Foot and Mouth disease, which is unrelated. It does not affect animals. If you are concerned, you should contact your GP.

Which animals are susceptible to FMD?

Among farm stock, cattle, sheep, pigs, and goats are susceptible, as are llamas and alpacas. Some wild animals such as hedgehogs, coypu, and any wild cloven-footed animals such as deer can contract it. Certain zoo animals including elephants can also contract it.

What are the signs?

Vesicles (blisters) in the mouth or on the feet and other signs which vary somewhat but can include:

Cattle – Fever, dullness, blowing slightly, off feed, shivering, sudden reduced milk yield and sore teats in milking stock, slavering, tenderness of feet or lameness. Feeding and cudding may cease and the animal is "tucked up" with a staring coat. If at pasture, the animal will be away from the rest of the herd and probably lying down. Quivering of the lips and uneasy movement of the lower jaw with copious frothy saliva around the lips that drips to the ground at intervals. Loss of condition is marked because of the fever and because the mouth is so painful that the animal is afraid to eat.

Sheep and goats – Fever, severe lameness affecting one or more legs, stiff-legged walk, off colour, tendency to lie down, unwillingness to rise and increased lamb mortality. Mouth symptoms are not often noticeable.

Pigs – Fever, sudden lameness, dullness, off feed. Mouth symptoms are usually not visible, but blisters may develop on the snout or on the tongue.

More details on how to spot foot-and-mouth disease can be found at: www.defra.gov.uk/footandmouth/about/clinical.htm

What kinds of virus are there?

There are seven main types: O, A, C, SAT.1, SAT.2, SAT.3 and Asia 1. Within each type there are many sub-types, e.g. O1 and A22. The average incubation period is 3-8 days but it can be shorter or may extend to 14 days or longer. The virus responsible for the 2001 outbreak in the UK was the highly virulent pan-Asiatic O type, while the 2007 outbreak in England was O₁BFS 1860.

When animals recover from infection by one type of virus they have little or no protection against attacks by any one of the others.

How is the virus destroyed?

It can be destroyed by heat, sunlight, low humidity, or certain disinfectants, but it may remain active for a varying time in a suitable medium such as the frozen or chilled carcase of an infected animal or on contaminated objects. Cold and darkness tend to keep it alive. Under favourable conditions it can survive for long periods.

What are the effects of FMD?

The disease is rarely fatal, except in the case of very young animals, which may die without showing any symptoms. Exceptionally, a severe form of the disease may cause sudden deaths among older stock.

The after-effects of FMD are serious. Affected animals lose condition and secondary bacterial infections may prolong convalescence. The most serious effects of the disease however are seen in dairy cattle. Loss of milk yield will certainly be experienced. Chronic mastitis may develop and the value of a cow is permanently reduced. Abortion, sterility and chronic lameness are commonplace and in some cases chronic heart disease occurs.

Can FMD be cured?

There is no cure. It usually runs its course in 2 or 3 weeks after which the great majority of animals recover naturally. Slaughter remains the basic control policy because widespread disease throughout the country would cause significant welfare problems and be economically disastrous due to the effects already noted above.

Disease control measures

How is the disease controlled?

The basic disease control policy is the slaughter of all susceptible animals on premises infected with FMD and dangerous contacts. This is in keeping with EU legislation and OIE guidelines. Movement restrictions are also put in place to help contain the disease.

There is an EU wide ban on the use of prophylactic (routine) vaccination, which has been in place since 1992. This allows EU Member States to retain the highest FMD status under international rules of "countries free from footand-mouth disease without vaccination".

However, the new EU Directive gives greater prominence to the potential use of emergency vaccination in the event of an outbreak as an adjunct to the basic slaughter policy. The Government accepts that emergency vaccination should be considered as a disease control option from the start of any outbreak of FMD.

The UK has its own stocks of 8 different FMD antigen strains held, on its behalf, by a commercial supplier. In addition, the EU Vaccine Bank holds a range of antigens for emergency use.

What happens when a suspect animal is found?

The owner of a suspect animal or carcase must by law report the fact to the <u>Divisional Veterinary Manager</u>. The owner is not expected to diagnose the disease, but s/he ought to know enough about the disease to suspect it. All owners and stockpersons should make themselves familiar with the symptoms, and call in a veterinary surgeon as early as possible; they should never ask another stock-owner to look at the suspect animal.

Restrictions are imposed on the premises from the time of notification prohibiting any animal, person or thing entering or leaving the premises without permission, and a Defra Veterinary Officer (VO) makes an investigation. If signs suggest FMD is present, the VO, after consulting Defra HQ, will sign a notice which prohibits the movement of animals within a radius of 8km of the premises concerned and arrange for sample material from the affected animal(s) to be sent to the Institute of Animal Health, by the quickest possible means, for testing. The Chief Veterinary Officer will confirm the outbreak if the laboratory results confirm the presence of FMD virus.

What happens if disease is confirmed?

On confirmation of the disease a Protection Zone will be imposed with a minimum radius of 3km around the Infected Premises and a Surveillance Zone with a minimum radius of 10km.

Notices are posted at all entrances to the premises and the movement of people on and off the farm is controlled. An approved disinfectant must be used to disinfect footwear, clothing and vehicles before entering or leaving the premises. As soon as possible after confirmation of disease the infected animals are valued and slaughtered. Other susceptible animals are then valued and they too are slaughtered without delay.

What are dangerous contacts?

Dangerous contacts are animals which have been exposed directly or indirectly to the risk of infection, either by movements of vehicles, people or animals, or by their proximity to a confirmed case.

How are carcases disposed of?

Carcases may be disposed of by commercial incineration, rendering or licensed commercial landfill. Mass pyres will not be used in the future but the use of alternative methods of disposal routes such as on-farm pyres and onfarm or mass burial cannot be completely ruled out if demand exceeds the capacity of the preferred options of incineration/rendering and licensed commercial landfill.

What measures are taken to prevent the further spread of disease? After completion of carcase disposal a thorough preliminary disinfection of the premises is carried out. The infected place restrictions are maintained prohibiting unauthorised movement on to or off the premises. At an early stage the destruction of vermin on the infected place is arranged to prevent these creatures mechanically carrying infection to other premises in the vicinity. Further cleansing and disinfection are also required.

What are Controlled Areas?

Controlled Area Restrictions are normally applied to restrict movement of animals outside the Protection/Surveillance Zones where there has been, or is likely to be, a risk of widespread dissemination of the disease; for instance, if an infected animal is found to have passed through a market.

7.3 Vehicle Check Sheet

The following check sheet can be used when vehicles have been stopped to check compliance with movement restrictions and cleanliness.

Vehicle Check Sheet Livestock Movement Restrictions

Animal Health Act 1981 The Disease Control (England) Order 2003

Vehicle Registration	Date Time			
Where stopped				
Vehicle type (e.g. artic, Landrover & trailer etc.)				
Animal type & numbers being transported				
Owner of Vehicle Name				
Address (inc. holding number if known)				
Driver's details (if different)				
Address				
Owner of animals (if different)				
Address (inc. holding number if known)				
Where animals collected (if different) (inc. holding number if known)				
Where animals being taken to (inc. holding number if known)				
Yes No	Comments			
Vehicle Clean?				
Wheels/tyres/wheel arches				
Driver's footwell				
_				
Driver's clothing/footwear				
Officer name & number				
Address				
Signature Phone number				
N.B. Please complete a separate report form if you find a vehicle transporting animals belonging to more than one owner.				

8. Additional Information Sources

There is a range of information available to local authorities, the farming community and the general public in relation to FMD.

It is essential that local authorities maintain an awareness of the information issued by central government at all times, but particularly during a disease situation. LACORS will also maintain up to date information specifically for local authorities.

LACORS Information

LACORS guidance for local authorities on road and access signs in a disease situation.

 $\underline{http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=15694\&docType=C}$

LACORS contingency plans and other information

http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=18346&docType=C

LACORS Guidance on secondment of Officers to support other local authorities, including information on authorisations

http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=14916&docType=C

Defra biosecurity guidance for visitors to premises with poultry or farmed animals

http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=15594 &docType=C

Defra guidance on farm visits during FMD outbreak http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=17195&docType=C

Other Specific Information

Defra - FMD General

http://www.defra.gov.uk/animalh/diseases/fmd/default.htm

Defra – FMD Legislation

http://www.defra.gov.uk/animalh/diseases/fmd/policy/index.htm

Defra - FMD Disease Control

http://www.defra.gov.uk/animalh/diseases/fmd/control/index.htm

Defra – General Biosecurity

http://www.defra.gov.uk/animalh/diseases/control/biosecurity/index.htm

Defra – Cleansing and Disinfection of Livestock Vehicles

http://www.defra.gov.uk/animalh/diseases/control/biosecurity/cleansing.htm

Defra – Guidance on Cleansing and Disinfection of Animal Transport http://www.defra.gov.uk/animalh/diseases/control/biosecurity/candd.htm

Defra – Approved Disinfectants

http://www.defra.gov.uk/animalh/diseases/control/testing_disinfectants.htm