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FINAL REPORT OF AN AUDIT

CARRIED OUT IN

THE UNITED KINGDOM

FROM 18 TO 29 NOVEMBER 2013

IN ORDER TO EVALUATE THE IMPLEMENTATION OF CONTINGENCY PLANS IN RELATION TO ANIMAL HEALTH, INCLUDING PROVISIONS ON THE PROTECTION OF ANIMALS DURING DEPOPULATION FOR DISEASE CONTROL

In response to information provided by the Competent Authority, any factual error noted in the draft report has been corrected; any clarification appears in the form of a footnote.

Executive Summary

This report describes the outcome of a Food and Veterinary Office (FVO) audit in the United Kingdom carried out between 18 and 29 November 2013, as part of the FVO audit programme for 2013. The main objective of this audit was to evaluate the resources and arrangements put in place to implement the European Union requirements for contingency planning, including provisions on the protection of animals during depopulation, in the event of one or more outbreaks of epizootic diseases. This evaluation included follow-up of actions taken by the competent authorities in response to relevant recommendations in previous audit reports summarised in the follow-up module of Country Profile DG(SANCO)/2012-6424, valid as of September 2013. A secondary objective was to gather information and to identify areas of best practice in relation to a number of issues relevant to epizootic disease control but not explicitly specified in EU legislation.

In general, the UK competent authorities are well-prepared for dealing with epizootic outbreaks. Adequate legislation, capable laboratories and robust structures are in place, as well as procedures for ensuring that trained staff, equipment and facilities are available. However, the role of the National Disease Control Centre and the command structures in case of outbreaks in Northern Ireland or Scotland is not clear in the contingency plans in these devolved Administrations, which may impede coordinated actions in an outbreak. In addition, the contingency plans in the national reference laboratories are focussing on samples taken in Great Britain and there are no formal agreements or procedures in place for dealing with samples taken in Northern Ireland, which may delay the analysis of such samples if Great Britain and Northern Ireland experience simultaneous outbreaks.

Active and passive surveillance programmes are in place although the tendency to negate suspect cases on clinical grounds both in practice and during exercises could, if applied during a real outbreak, lead to failure to detect spread of disease.

Although vaccination strategies are in place, the incomplete transposition of EU legislation on emergency vaccination against CSF and the failure to define vaccine requirements in certain contingency plans may delay the implementation of emergency vaccination.

The substantially different standstill rules across UK may undermine public perception, and thus the impact, of these important biosecurity measures. There is a system in place for tracing movements of animals but the deficiencies observed, with regard to delayed or incorrect registration of sheep movements and the fact that only cattle movements can be traced in a single database when animals have moved between GB and NI, may delay the identification of contact holdings in an outbreak.

The systems in place for depopulation and disposal of carcasses in the UK are largely in line with EU animal welfare and carcass disposal requirements during an outbreak.

The status of recommendations 18512 (in progress), 26725 (action still required) and 2007-7577-5 (action still required) in the follow-up module of the UK Country Profile DG(SANCO)/2012-6426 remain unchanged.

The report makes recommendations to the Competent Authorities aimed at addressing areas in which further improvements are required.

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Abbreviations and definitions used in this report

Abbreviation	Explanation
AFBI	Agri-Food and Biosciences Institute
AHS	African Horse Sickness
AHVLA	Animal Health & Veterinary Laboratories Agency
AI	Avian Influenza
AMLS	Animal Movements Licensing System
APHIS	Animal and Public Health Information System
ASF	African Swine Fever
BT	Bluetongue
CEDCC(NI)	Central Epizootic Disease Control Centre (NI)
CSF	Classical Swine Fever
CTS	Cattle Tracing System
CVO	Chief Veterinary Officer
DARD	Department of Agriculture and Rural Development
Defra	Department of Environment Food and Rural Affairs
DG(SANCO)	Health and Consumers Directorate General
ELISA	Enzyme-Linked Immuno-Sorbent Assay
EHD	Epizootic Haemorrhagic Disease of deer
FMD	Foot-and-Mouth Disease
FOB	Forward Operations Base
FVO	Food and Veterinary Office
GB	Great Britain
LDCC	Local Disease Control Centre
LSD	Lumpy Skin Disease
MS	Member State
ND	Newcastle Disease
NDCC	National Disease Control Centre
NEG	National Expert Group
NI	Northern Ireland
NRL	National Reference Laboratory
OCC	Outbreak Coordination Centre
OIE	World Organisation for Animal Health
PCR	Polymerase Chain Reaction
RP	Rinderpest

RVF	Rift Valley Fever
SAMS	Scottish Animal Movements System
SG	Scottish Government
SGP	Sheep and Goat Pox
ScotEID	Scottish Electronic Identification Database
SVD	Swine Vesicular Disease
UK	United Kingdom
VS	Vesicular Stomatitis
WG	Welsh Government

1 Introduction

This audit took place in the United Kingdom (UK) from 18 to 29 November 2013 and was undertaken as part of the FVO (Food and Veterinary Office) planned audit programme. The audit team comprised two auditors from the FVO and one National Expert. The team was accompanied throughout the audit by representatives of the Contingency Planning Division of the Animal Health & Veterinary Laboratories Agency (AHVLA).

2 Objectives

The main objective of this audit was to evaluate the resources and arrangements put in place to implement the European Union (EU) requirements for contingency planning, including provisions on the protection of animals during depopulation, in the event of one or more outbreaks of the following epizootic diseases: Foot-and-Mouth Disease (FMD), Bluetongue (BT), Classical Swine Fever (CSF), African Swine Fever (ASF), Swine Vesicular Disease (SVD), African Horse Sickness (AHS), Avian Influenza (AI), Newcastle Disease (ND) and a number of other diseases. Whilst contingency planning for all of these diseases is included within the scope of this audit, the audit concentrated, in particular, on ASF, FMD, AI and AHS. ASF is considered to be a current risk due to the presence of disease close to EU borders. FMD is one of the most difficult diseases to contain and affects several livestock species. AI was chosen as an example of a poultry disease where specific requirements for contingency plans are laid down in European legislation. AHS was chosen due to the large equine population in the UK and the ever increasing mobility of horses.

This evaluation included follow-up of actions taken by the competent authorities in response to relevant recommendations in previous audit reports dealing with contingency planning, animal identification and movements. However, follow-up of recommendations related to identification and movement of cattle will be made during an audit on the UK bovine tuberculosis programme, which is planned for 2014. A summary of the current status of follow-up can be found in the follow-up module of the Country Profile (DG(SANCO)/2012-6424, valid as of September 2013) which is available on the FVO website:

http://ec.europa.eu/food/fvo/index_en.cfm

A secondary objective was to gather information and to identify areas of best practice in relation to a number of issues relevant to epizootic disease control but not explicitly specified in EU legislation. Such issues include routine monitoring for epizootic disease, the deployment of risk analysis with subsequent determination of alert levels and Member State (MS) requirements for biosecurity measures on farms.

In pursuit of this objective, the following sites were visited:

MEETINGS / VISITS		no.	COMMENTS
Competent Authorities	Central	2	Opening and closing meetings in London with the UK central competent authority and representatives from the competent authorities of England, Scotland, Wales and Northern Ireland.
	Regional/ local	8	England: AHVLA in Chelmsford (regional office), Bury St Edmunds, Preston and Gloucester (field offices)

			Wales: AHVLA Cardiff (field office and specialist service centre) Northern Ireland: Department of Agriculture and Rural Development head office in Belfast, local office in Newry and local disease control centre in Cookstown
Laboratories		3	UK National Reference Laboratories: Pirbright Institute, AHVLA Weybridge Control laboratory: Agri-Food and Biosciences Institute (Northern Ireland)
Holdings		2	One pig farm, one sheep farm
Markets/ Dealers		2	One livestock market (GB), one approved assembly centre (Northern Ireland)
Establishments		1	One rendering facility (Category 1 and 3)

3 Legal Basis

The audit was carried out under the general provisions of EU legislation and, in particular:

- Article 45 of Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

Full legal references to EU legal acts quoted in this report are provided in Annex 1 and refer, where applicable, to the last amended version. In addition, a summary of the main legal requirements in certain disease-specific EU Directives is provided in Annex 2.

4 Background

Given the potential impact of outbreaks of epizootic disease, it is important that Member States can react immediately and effectively in a coordinated manner and in co-operation with neighbouring countries. EU legislation requires MS to have contingency plans in place to combat such outbreaks so as to reduce their adverse consequences. Of critical importance to the suppression of an outbreak of epizootic disease, is the swiftness of initial diagnosis and the deployment of the first stages of the contingency plan. The table below lists the most recent outbreaks of epizootic diseases in the UK, as reported to the World Organisation for Animal Health (OIE):

Disease	**Last detected**
AI	Highly pathogenic AI 2008 Low pathogenic AI 2006
ND	2006
BT	2008
CSF	2000
FMD	2007
SVD	1982

Rinderpest (RP)	1900
Sheep and Goat Pox (SGP)	1866
AHS, ASF, Vesicular Stomatitis (VS), PPR, lumpy skin disease (LSD), Rift valley fever (RVF) and epizootic haemorrhagic disease of deer (EHD) have never been detected in UK	

The whole system of contingency planning in the UK was most recently audited in 2004 (DG (SANCO)/7267/2004) and audits of related areas were carried out between 2006 and 2011: intra-community trade of live animals (DG(SANCO)/8148/2006); foot-and-mouth disease (DG(SANCO)/2007-7416); sheep and goat identification (DG(SANCO)/2007-7577); bovine tuberculosis (DG(SANCO)/2011-6057); and traceability of beef and beef products (DG(SANCO)/2011-6023). The main deficiencies linked to the scope of the current audit were related to the official controls on holdings, animal identification and animal movements. Current information on the actions taken by the UK in response to the relevant recommendations in previous FVO reports is based on a general follow-up audit, which was carried out by the FVO in the UK in November 2012, and on information received since then from the UK authorities. The state of play as of September 2013 has been described in the UK Country Profile (DG(SANCO)/2012-6424).

5 Findings And Conclusions

5.1 Competent Authorities

Legal requirements

Regulation (EC) No 882/2004 lays down rules for the performance of official controls. In particular Article 4 requires the designation of competent authorities, co-ordination and co-operation between and within competent authorities and that sufficient legal powers are available to the competent authorities. The availability of sufficient legal powers for the implementation of contingency plans is specified in most of the relevant Directives (see Annex 2). In addition, Council Directive 2003/85/EC (Article 74(3)(d), (g) and (i) and Annex XVII(6)) requires close cooperation with environmental authorities and enforcement bodies in relation to FMD control; Council Directive 2005/94/EC on the control of avian influenza (Article 62(3)) requires close cooperation between the competent authorities responsible for the different sectors, particularly those in charge of animal health, public health, environmental matters and health and safety of workers.

Findings

5.1.1 Competent authority structure

Information on the organisation and structure of the competent authorities can be found in the Country Profile for UK (see http://ec.europa.eu/food/fvo/country_profiles_en.cfm) and in the UK Multi-Annual National Control Plan for 2013-2015, available on the website of the UK Food Standards Agency (http://www.food.gov.uk/multimedia/pdfs/enforcement/ukmancp201315.pdf). These documents provide information on the structures and responsibilities of the competent authorities under normal circumstances.

Animal health and animal welfare are fully devolved matters in the UK; the responsible bodies are the Department of Environment Food and Rural Affairs (Defra) in England, the Scottish Government (SG) in Scotland, the Welsh Government (WG) in Wales and the Department of Agriculture and Rural Development (DARD) in Northern Ireland (NI). Defra is the central competent authority for UK. Great Britain (GB) and NI are defined as different epidemiological units.

In GB AHVLA, working closely with Defra, SG and WG, takes the lead in operational aspects of preparing for and controlling outbreaks and incidents of exotic notifiable animal diseases, whilst in NI these responsibilities are all within DARD.

In case of an outbreak of an exotic animal disease, the UK Chief Veterinary Officer (CVO) in Defra is responsible *inter alia* for contacts with the European Commission and other MS as well as being responsible for activating and chairing the National Disease Control Centre (NDCC) which will bring together the operational and policy functions that need to be activated across the UK. There are also CVOs for Wales, Scotland and Northern Ireland.

5.1.2 Legal powers available to the competent authorities

The Animal Health Act 1981 is the main legislation in GB which provides the legal basis for Ministers to make Orders and to authorise Regulations dealing with all relevant aspects of control and eradication of diseases. In Scotland, the Animal Health Act 1981 has been amended by the Animal Health and Welfare (Scotland) Act 2006. The corresponding legal act in NI is The Diseases of Animals Order (NI) 1981.

Under the Animal Health Act 1981 (GB) and the Diseases of Animals Order (NI) 1981, a large number of provisions give legal powers to the devolved Administrations for the implementation of necessary measures for controlling epizootic diseases in line with EU legislation.

The FVO noted that:

- the Decisions related to the diseases covered by the scope of this audit have all been transposed into national legislation in the four devolved Administrations;

- legislation that was recently introduced in England, Scotland, Wales and NI transposing Council Directive 92/35/EEC provided, for the first time, the legal powers to allow the control of AHS in UK.

5.1.3 Cooperation between and within competent authorities in development of Contingency Plans

Each devolved Administration is responsible for its own contingency plans but there are structures in place, such as the UK Animal Disease Policy Group, for regular exchanges of views and for coordination between the four Administrations.

The Animal Disease Policy Group is a decision-making forum both in "peacetime" and during outbreaks, bringing together policy teams from each of the devolved Administrations, CVOs, lawyers, experts, communications advisers, Chief Scientific Adviser representatives, economists, Cabinet Office (Civil Contingency Secretariat) and others, such as public health bodies, where needed. There are consultation procedures in place and relevant other authorities, laboratories and

stakeholders are involved when contingency plans and strategies are drawn up or reviewed.

In GB, "Core Groups" of stakeholders have been created for avian diseases, pig diseases, equine diseases and EU Animal Health Law. In England there are also core groups for FMD and BT. These groups are consulted during the development of disease-related strategies.

The FVO team noted that:

- although the GB Animal Health Act 1981 does not apply to NI, it stipulates that orders by the GB Ministers shall be communicated to DARD (NI) and every order by DARD in relation to diseases of animals shall be communicated to GB Ministers;

- the organisation "on the ground" is different between NI and GB which operate separately. However, there are regular formal and informal contacts between NI and GB Administrations at central policy and technical levels. Formal cooperation between the competent authorities takes place in several areas, e.g. the Animal Disease Policy Group, monthly CVO meetings, the Outbreak Readiness Board and the Veterinary Risk Group;

- in addition to the cooperation between NI and GB, there is an All-Island Animal Health and Welfare Strategy and established forums for cooperation and coordination between NI and the Irish competent authorities;

- background documents checked from the recent development of the GB Control Strategy for AHS showed that this strategy had been developed in close cooperation with stakeholders and equine veterinary practitioners.

Conclusions on Competent Authorities:

Although the competent authority structures and interactions are complex and animal health is a fully devolved matter, there are defined procedures for the exchange of information and coordination at strategic and technical levels between the four devolved Administrations in peacetime, which pave the way for coordination and cooperation also in a crisis. Following the recent transposition of EU legislation for African Horse Sickness, the four devolved Administrations have sufficient legal powers to deal with the control and eradication of those exotic animal diseases included in the scope of this audit.

5.2 Contingency Plans

Legal requirements

Requirements for Member States to have contingency plans to control disease outbreaks are stipulated for the following diseases: FMD (Council Directive 2003/85/EC), BT (Council Directive 2000/75/EC), CSF (Council Directive 2001/89/EC), ASF (Council Directive 2002/60/EC), SVD and a number of other diseases (Council Directive 92/119/EEC), African Horse Sickness (Council Directive 92/35/EEC), AI (Council Directive 2005/94/EC) and ND (Council Directive 92/66/EEC). A summary of some specific requirements of these Directives is provided in Annex 2.

Requirements relating to holding registration, animal identification and movement controls for cattle, sheep and pigs are laid down in Regulation (EC) No 1760/2000, Council Regulation (EC) No

21/2004 and Council Directive 2008/71/EC respectively, and associated implementing measures.

Findings

5.2.1 Coverage and approval

On 28 February 2012 a framework GB and NI Contingency Plan for Exotic Notifiable Diseases of Animals (hereafter referred to as the GB and NI Contingency Plan) was published on the website www.gov.uk, with links from the websites of Defra, WG, SG and DARD. This framework plan has been agreed between the four devolved Administrations and outlines the roles of the four CVOs, structures in GB and NI, procedures, meetings and communications within GB and within UK when exotic animal diseases are suspected or confirmed.

Each of the four devolved Administrations has developed and published its own contingency plan for exotic notifiable diseases:

- The Scottish Government Exotic Diseases of Animals Contingency Framework Plan (May 2013) covers all the main components of a generic contingency plan, including the roles of and interactions with operational partners and other authorities and agencies within and outside Scotland. There are also six disease-specific comprehensive annexes (including references to EU and national legislation) dealing with ASF, CSF, AI, ND, FMD and SVD, and a specific Communication Strategy;

- Defra's (England) Contingency Plan for Exotic Notifiable Diseases of Animals (2012) and The Welsh Government Contingency Plan for Exotic Animal Diseases 2013 are almost identical in structure and both cover all the main components of a generic contingency plan, including chapters on the decision-making and implementation of vaccination for FMD and CSF. There are no disease-specific contingency plans in England or Wales but references to EU and national legislation as well as more detailed instructions and procedures are included in the Operations Manual on the AHVLA intranet;

- In NI, the publicly available generic Contingency Plan for Epizootic Diseases of Animals is different in structure from the English/Welsh plans and deals mainly with processes, command structures and responsibilities. However, the annexes include tables outlining the different alert levels for investigations related to FMD, highly pathogenic AI and BT, respectively. Disease-specific plans for ASF, CSF, AHS, AI, BT, FMD, references to EU and national legislation, and operational instructions for different aspects of disease eradication (e.g. a specific operations manual for epizootic outbreaks in ports and airports) are available on the DARD intranet.

Disease-specific control strategies for GB have been published for FMD, AHS, ASF, CSF and avian diseases (AI and ND) as well as a UK control strategy for BT. These strategy documents explain to stakeholders and the general public how the legal powers will be used by the authorities in an outbreak and are also aimed at supporting the contingency plans.

The FVO team noted that:

- although different in structure, the contingency plans, control strategies and manuals in the four devolved Administrations cover the main measures for controlling an outbreak of an exotic notifiable animal disease;

- in addition to disease-specific documents, both AHVLA and DARD manuals include detailed instructions on the initial response to a notification of a suspect case of a notifiable disease;

- the AHVLA instruction on the initial response also includes target response times for dispatch of a veterinary officer to the holding, depending on which disease is suspected. For exotic diseases (FMD, SVD, VS, AI, ND, ASF, CSF, BT, AHS) the dispatch time following clinical suspicion is 30 minutes from receipt of the notification;

- detailed staff instructions are available for the main exotic animal diseases both in NI and in GB.

5.2.2 Documentation

Reviews, including stakeholder consultations, of the contingency plans in England and Wales are required at least once per year under the animal Health Act 1981. In Scotland and NI, contingency plans are to be reviewed "regularly", but no time limits have been set.

The FVO team noted that:

- those contingency plans and control strategies, as well as operation manuals, instructions and forms which are available on the internet (contingency plans) and intranet (other documents) of AHVLA in GB and DARD in NI all have issue dates;

- the contingency plans for England, WG, SG and NI in force at the time of the audit were all less than one year old and the GB and NI Contingency Plan had been published in 2012;

- the control strategies date from 2008 (BT), 2010 (ASF, CSF), 2011 (FMD) and 2012 (avian diseases and AHS). The avian diseases control strategy has been revised once since it was first published;

- all AHVLA organisational charts and process charts included in the Operations Manual (Chapter 75) are dated 2010 and the information regarding Contingency Contracts pre-dates the 2011 Contingency Contract Review. For example, the NDCC Cell Overview diagram in the Operations Manual is quite different from the NDCC structure depicted in the generic contingency plans for England and Wales;

- the "Generic Library" on the DARD intranet includes a copy of the GB and NI Contingency Plan;

- the links to the Defra Contingency Plan in the DARD Generic Library and in the SG Contingency Plan for CSF, both lead to versions of the Defra plan which are no longer valid.

5.2.3 Competent authority command structure during an epizootic outbreak

The GB and NI Contingency Plan describes the UK structures and procedures in an outbreak situation; the roles and interactions of the four CVOs; how to ensure adequate staff resources; procedures for, and participants in, GB and UK level meetings; and procedures for internal and external communication during an outbreak. It also describes the groups in each devolved Administration that would be responsible for management of the wider consequences of a disease

outbreak and for strategic directions to the tactical response, which is coordinated by the NDCC in GB. In NI the central command consists of a Strategy Group led by the DARD Permanent Secretary and the tactical level Central Epizootic Disease Control Centre (CEDCC).

Any outbreak of an exotic animal disease would be declared by the CVO responsible for the area affected. However, irrespective of the location of the outbreak, the UK CVO would be responsible for activating the NDCC. The Animal Disease Policy Group is included in the NDCC to review, discuss, challenge or agree to disease control policies and strategic recommendations presented to them and has a role in ensuring that policies are consistent across the four Administrations. The Disease Strategy Group in Scotland and the Emergency Co-ordination Centre in Wales provide further strategic and tactical functions for their respective governments. In NI these functions are within DARD.

Defra is able to trigger the use of a Cross Government Memorandum of Understanding on Mutual Aid. Under the Civil Contingencies Act 2004, responders shall endeavour to provide mutual aid in the form of personnel and/or equipment.

In 2004 UK signed the International Animal Health Emergency Reserve Agreement with Ireland, USA, Canada, Australia and New Zealand whereby the signatories agree to assist each other by providing veterinary and technical staff in the event of an outbreak.

The FVO team noted that:

- the Welsh and the English contingency plans clearly state that the NDCC would be placed in London and that the OCC would lead field operations and coordinate the communication between the NDCC and the LDCC(s) which is in accordance with the GB and NI Contingency Plan;

- although the UK CVO and the representatives from NI stated at the closing meeting that the NDCC for an outbreak in the UK would always be based in London, the GB and NI Contingency Plan, the NI Contingency Plan and the Scottish Contingency Plan do not describe the command structure in that way:

    - the GB and NI Contingency Plan defines the NDCC as the coordinating body for the tactical response only in GB (England, Scotland, Wales);

    - in the NI Contingency Plan the central command structure is located in NI. The plan neither mentions an NDCC nor describes a relationship between the NDCC in London and the CEDCC(NI) located in DARD;

    - Scottish Contingency Plan places the NDCC (in London) on the same level as the SG Disease Strategy Group for outbreaks involving Scotland. The Animal Disease Policy Group, National Expert Group, National Emergency Epidemiology Group and the Outbreak Coordination Centre (OCC) are referred to as “shared structures” between the UK/GB structures (Ministers, National Security Council and NDCC) and the SG structures;

- GB and NI have similar, but not identical, strategic, tactical and operational control structures;

- existing AHVLA structures at central, regional and local levels can smoothly be transformed into an outbreak organisation for GB and the same is true for DARD in NI;

- In England, Scotland and Wales there are specific guidelines for investigations of zoonotic diseases, outlining structures, roles and responsibilities of the animal and public health bodies involved, notification and reporting and how to deal with risks for exposure;

- in NI the Department of Health and Social Services and Public Safety coordinate the communications for public health aspects of an incident, the NI Central Crisis Management Arrangements coordinate the strategic response and the Crisis Management Group coordinates the efforts of all NI Departments.

5.2.3.1 National Disease Control Centre and Disease Control Centres at central levels in the devolved Administrations

The GB and NI Contingency Plan states that, for any outbreak in GB, the NDCC would be located in London. If the outbreak is small and located only in Scotland or Wales, parts of the NDCC may be placed there. Representatives from the devolved Administrations may be based in the NDCC during a large scale outbreak in GB.

The English Contingency Plan includes descriptions of how and at which levels (strategic, tactical or operational) the Environment Agency, the Health Protection Agency, the Association of Chief Police Officers, the National Animal Health and Welfare Panel, Department of Health, Department for Transport, the Food Standards Agency, Natural England, stakeholders, Core Groups would be involved.

According to the NI Contingency Plan, the command structure comprising strategic and tactical structures at central level, and an operational structure at local level, would be activated by the NI CVO if an outbreak was confirmed in NI, but would normally not be activated for outbreaks confined to GB. If activated, the central command structure would carry out all the tasks normally assigned to the NDCC, except for contacts with other countries and international organisations.

According to the SG Contingency Plan, a Disease Strategy Group would be established by the Scottish Ministers if a case of a notifiable exotic animal disease was confirmed in Scotland. This group would be responsible for coordinating and managing the Scottish disease control response and would have communication links into the LDCC in Scotland. The group would *inter alia* choose which disposal facility to use, based on a list of suitable facilities from the NDCC. Should the disease outbreak be located elsewhere in GB, a Scottish Disease Policy Unit would be established instead.

According to the Welsh Contingency Plan, an Emergency Co-ordination Centre may be established by the Welsh CVO. The Centre would normally not be established for a disease outbreak outside Wales. In the event of a disease outbreak in Wales, AHVLA would be responsible for the delivery of the operational response necessary to control the disease, with the support of the WG. Once activated, the Emergency Coordination Centre would co-ordinate advice and determine policy on disease control from a Welsh perspective, maintain an overview over the Welsh outbreak, liaise with the LDCC and be the main link with the NDCC.

The FVO team noted that:

- offices with suitable space and communication equipment for the NDCC are available in Defra headquarters and offices for the CEDCC(NI) are located in DARD headquarters in Belfast;

- suitable means of communication are available as well as computer-based systems to carry out tracing and mapping both in GB and in NI. Common filing systems and means of internal communication between central and local staff exist both in AHVLA and DARD, respectively, although the filing systems for NI and GB are separate;

- both the NDCC and the CEDCC(NI) have the capabilities listed in Council Directive 2003/85/EC (FMD), such as designing control measures and ensuring prompt implementation by the local disease control centre(s) (LDCC), re-deploying staff, providing information, enforcing or liaising with enforcement bodies, and liaising with other authorities and the media;

- staff have been nominated for the different tasks in the NDCC and CEDCC(NI) and these centres are coordinated by the UK and NI CVOs, respectively;

- there is a "battle rhythm" defined for the NDCC in the GB and NI Contingency Plan with pre-determined regular meetings for different levels of the disease control organisation and defined communications channels. These meetings involve only GB. However, it is mentioned in the "battle rhythm" that there may also be *ad hoc* UK level meetings by convening the Animal Disease Policy Group. The NI Contingency Plan includes a "battle rhythm" for the CEDCC(NI) involving only the organisation in NI.

5.2.3.2 Local Disease Control Centres

In GB, existing AHVLA offices (in Wales, Scotland and four regions in England) can be transformed into LDCC where necessary. The AHVLA outbreak management would be located in the LDCC, comprising a Regional Operations Director, the Veterinary Investigations and Surveillance Lead, the Veterinary Leads, the Regional/Field Manager and the Resilience and Operations Manager and a communications cell. If it facilitates field operations, a local AHVLA office close to the outbreak would function as Forward Operations Bases (FOB) and be the base for the field team, including a Field Team Leader, a Veterinary Lead and a Case Officer. The FOB would be used for receiving, instructing, dispatching and debriefing field staff, managing measures on and around outbreaks, records management and for sample collection, packing and dispatch to the analysing laboratories.

In NI one central site, not normally used by the veterinary services, has been prepared to function as the LDCC (referred to as the local epizootic disease control centre), which would be the operational part of the CEDCC(NI). The LDCC comprises a Disease Detection Director, a Disease Eradication Director, a Disease Control Director, an Administrative Manager, an Information and Communication Team, and Managers for Technical and Administrative Support. Staff for these functions have been named and are located in DARD offices during peacetime. One member from the CEDCC(NI) epidemiology team would be included in the LDCC epidemiology team, responsible for tracing, testing, recording and mapping, under the Disease Detection Director. If it facilitates field operations the LDCC Manager can decide to request that a Divisional Veterinary Officer sets up a Delivery-Out Centre closer to the outbreak. There are sites prepared for such centres mainly in divisional DARD Offices but it is also possible to use e.g. certain football clubs and schools.

The FVO team noted that:

- both in NI and GB, the names, roles and tasks of staff in the LDCC have been defined in advance, office space is available and the organisational structures are clear and well defined;

- both in GB and in NI, tools and competent staff are available in the LDCCs for tracings, mapping and for drawing up protection and surveillance zones, taking into account natural boundaries and other local conditions;

- some AHVLA offices have limited or inconsistent internet access. This problem has been noted in several exercises in recent years and was obvious in the regional office visited by the FVO team when efforts were made to demonstrate on-line applications. For this reason the LDCC in this region would be split between this office and an AHVLA field office nearby;

- the buildings for the NI LDCC are spacious, well equipped and available to DARD at short notice. Staff have been nominated and can take up work in the LDCC within hours and the LDCC is prepared for being fully operational within 24 hours. During exercises the NI LDCC has been housing 50-60 staff;

- The NI LDCC manager is responsible *inter alia* for communications with CEDCC(NI) and for ensuring that staff are organised and well prepared for their tasks;

- the GB FOB site visited was well suited to running field operations and could rapidly be re-structured from an AHVLA field office into clean and "dirty" areas, changing rooms, sample handling facilities, briefing and de-briefing areas and rest areas for field staff in accordance with a prepared site plan. Sampling equipment, personal protection equipment, and equipment for killing were available and arrangements were in place to bring in additional supplies;

- the NI LDCC had access to two mobile units (Site Control Vehicles) for on-site controls of persons moving in and out of infected premises, equipment for personal protection and demarcation of zones on the premises and a standardised system for decontamination of personnel moving out from the infected premises.

5.2.4 Financial provisions

In GB, Schedule 3 of the Animal Health Act (1981) lays down the provisions for slaughter and compensation in relation to certain diseases (cattle plague, pleuro-pneumonia, FMD, swine fever and diseases of poultry). In general, animals slaughtered to prevent the spread of FMD are compensated for by the value of the animal immediately before it was destroyed or immediately before it became affected by the disease. Pigs slaughtered for control of CSF or ASF will also be compensated for in full but pigs infected with CSF will be compensated for by half of their value prior to infection. Valuation would be carried out by approved valuers. For poultry, compensation is only paid for birds which were not diseased at the time of killing. The valuation can be carried out by AHVLA staff using regularly updated valuation tables; by an approved valuer or, in exceptional cases, by a specialist poultry consultant.

In NI, Part II of Schedule 2 of the Diseases of Animals (NI) Order 1981 lays down the rules for

compensation in relation to certain diseases (all diseases included in the scope of this audit and other notifiable diseases). In general, for FMD, SVD, PPR, VS, RVF, EHD, and poultry diseases, compensation would be for the value immediately before the animal was slaughtered or before it was affected by the disease. For the other diseases in the scope of this audit, for a diseased animal, the compensation would be for half of the value before the animal was affected, or the full value immediately before slaughter for non-affected animals (for AHS, see additional details below).

Under the new AHS legislation in England (2012), Scotland (2012) and Wales (2013) no compensation would be paid for horses testing positive for AHV when killed. Other horses killed for disease control purposes would be compensated for up to a ceiling value of 2500 pounds Sterling. The African Horse Sickness Regulations (NI) 2013 does not include rules for compensation or valuation. However DARD representatives stated that horses killed for AHS would be tested for AHS. If found not to be infected compensation would be paid to the full value prior to killing whilst 50% of the value would be compensated for horses shown in laboratory testing to be infected with AHS. No ceiling value has been set for horses in NI.

The authorities in UK stated that there were no financial restrictions on equipment, staff and products needed to combat an outbreak of an exotic notifiable animal disease.

The FVO team noted that:

- following a tendering procedure for a contingency valuation services framework, lists of valuers had been established by England, Wales and Scotland. Further information about framework agreements can be found in section 5.5;
- NI had established in-house DARD valuers for all species with the exception of poultry. If an outbreak involved poultry, the valuers would be sourced from a joint contract with Defra/AHVLA, under the same tender as referenced above.

5.2.5 Establishment and enforcement of protection and surveillance zones

Preliminary discussions about zones and restrictions take place during an Amber Teleconference (before the disease has been confirmed, see point 5.2.6).

In GB, once the disease is confirmed the zones are drawn up by the NDCC and imposed by Statutory Order. The declaration of movement control zones rests with the Ministers of the administration in which the zone is being declared. Zones are drawn up based on data from the AHVLA Animal Demography and Disease Informatics team which functions as the NDCC Data Analysis and Mapping Team. Local authorities would be responsible for erecting road signs for zones and for enforcing disease control measures and movement licence conditions. Individual police forces would have a role in policing of control zones, enforcement of movement controls with Local Authorities, and providing emergency support in pursuing legal entry to premises. Once a holding is officially designated as "infected premises", a case officer will be nominated. The case officer is responsible for managing staff and resources at an operational site/holding immediately prior to, during and after a depopulation operation.

In NI, protection and surveillance zones would be declared by the NI CVO based on mapping of circular zones which are adapted to local conditions, respecting the minimum radii laid down in EU legislation. Identification of susceptible herds/flocks within zones would be done by the LDCC Mapping Team using data sources, local knowledge and foot patrols. The Police Service of Northern Ireland would provide assistance to DARD in enforcement of these zones and the corresponding movement restrictions. The NI equivalent to the GB case officer is the site operations

controller.

Temporary Control Zones can be initiated by the AHVLA and declared by Statutory Order around suspected outbreaks of highly contagious exotic diseases. In Scotland such a zone would be declared by the Scottish Ministers. In NI the contingency plan contains provisions for the declaration of Temporary Control Zones by the CVO in case FMD is suspected in NI or HPAI suspected on the island of Ireland.

5.2.6 Communication procedures during an outbreak

An "Amber Teleconference", chaired by the UK CVO, would be convened when there is a strong suspicion of an exotic animal disease in the UK. Communication channels between the devolved Administrations, including a schedule of several daily meetings for defined groups of participants in GB, and *ad hoc* meetings at UK level, are defined in the GB and NI Contingency Plan, as previously described. Communication procedures are also outlined in the contingency plans in all four devolved Administrations, with special emphasis on communications within each country. In addition, both NI and SG have their own communication strategy documents, detailing internal as well as external communication when an epizootic disease is suspected or during an outbreak.

The UK CVO is responsible for all communication with international organisations and other MS, irrespective of where in the UK the outbreak is located. This is clearly defined in all contingency plans.

In case of an outbreak in GB, there would be a Communications team in the LDCC which would work in liaison with Defra's Communications Group, the NDCC, and the devolved Administration in the country concerned. The GB OCC is responsible for overseeing the relationship and communications between the NDCC and LDCC(s) as well as for resource planning. It is also the central point of intelligence on the outbreak, its impact and control, and issues tactical guidance to LDCC(s) on depopulation, transport, disposal and cleansing and disinfection. The OCC is also responsible for implementing vaccination (through an external contractor), providing legal advice to the NDCC, providing support and advice on procurement of goods and services and for liaising with IT control system providers.

In NI, the Information and Communications Management Unit in DARD would be responsible for ensuring, at central level, that information is targeted and available to all who need it. The Management Unit in the NI LDCC is responsible for maintaining communications with the CEDCC(NI) and with outside bodies in line with defined procedures. A suggested daily schedule of meetings at CEDCC(NI) and LDCC levels is included in the NI Contingency Plan.

The FVO team noted that:

- the Scottish Communications Strategy covers all aspects of communication within Scotland and with the NDCC. It includes the appointment of a communications coordinator, contact lists for government and operational partners, templates for news releases, flowcharts for notifications to animal keepers, identification of Scottish disease control stakeholder groups, a template for Disease Strategy Group meetings and for teleconferences. The strategy also comprises a Communications Matrix indicating key external audiences, which information these audiences need, how this information will be made available and which body in the SG is responsible;

- the NI Communication Strategy is based on the assumption that the outbreak is located (only) on the island of Ireland, covers procedures and instructions for the LDCC, defines media handling procedures, includes notifications to the UK CVO but does not include or make reference to any communication with a UK NDCC;

- in an outbreak, regular meetings, including short "bird table" meetings (where participants are kept standing), would be held at central and local levels in UK to provide updates of the status of the outbreak and to identify and resolve emerging issues.

5.2.7 Availability of Epidemiological expertise

National Expert groups have been nominated and are available for gathering evidence and formulating advice to policy makers in "peacetime". The UK standing National Expert Group (NEG) secretariat, located in AHVLA, maintains a list of external and internal experts who may be convened at the request of any of the devolved Administrations. Expertise is available *inter alia* in the following areas: veterinary science, science, laboratory testing and diagnostics, husbandry, wildlife surveillance, meteorological modelling of pathogens, ornithology, entomology and epidemiology. When convened, the NEG will comprise experts in those fields which are relevant to the individual situation. The NEG would have an input at NDCC level during an outbreak together with the National Emergency Epidemiology Group which is an operational unit of the OCC.

The NI Scientific Advisory Forum is a separate entity which can be convened by the DARD Strategy Group in an emergency in order to provide scientific advice to decision makers.

The Human Animal Infections and Risk Surveillance group comprises representatives from Defra, AHVLA, Department of Health, Food Standards Agency, Public Health Wales, Health protection Scotland, the Scottish Government and the Public Health Agency of NI. This group holds monthly meetings to discuss and identify emerging potentially zoonotic infections and publish monthly reports on notable events/incidents.

The FVO team noted that:

- comprehensive standard forms are used for epidemiological enquiries and expert teams are available day and night to support the local veterinary officers in investigating suspect cases;

- areas of high livestock densities have been identified for different species and these maps can be updated swiftly;

- trade patterns are well known and, although dealers are not identified as such in the databases, the veterinary services and Local Authorities are aware of most keepers who frequently deal in animals.

5.2.8 Animal identification and movement control

5.2.8.1 In Great Britain

All births, deaths, imports and movements of cattle in GB must be notified within three days to the GB Cattle Tracing System (CTS) which is administered by the British Cattle Movement Service (part of the Rural Payments Agency). Information from this system is uploaded daily into the GB Animal Movements Licensing System (AMLS), which is designed to capture movements and to

monitor standstills.

In England and Wales, batch movements of sheep and goats onto a holding must be notified to the Local Authority for entry into the database by the recipient keeper within three days of receipt of the animals. Such notifications are not required when electronically double-tagged animals are sent to a Central Point Recording Centre (certain market, abattoir, collection centre) that is authorised to read electronic tags. Tag readings are sent electronically to local authorities within 48 hours of the animals' departure[1]. Movements of sheep and goats over distances of less than 5 miles without change of keepership do not need to be recorded or reported provided that the land has the same county parish holding number. Sheep returning from grazing common land in direct proximity to the holding (under a commoner's licence) are also exempt.

In Scotland, operators of markets and abattoirs must electronically report (on behalf of the keeper) all movement of sheep and goats via the market within 48 hours to the Scottish Electronic identification database (ScotEID). Farm-to-farm movements of sheep and goats must be notified on paper by the recipient of the animals within three days (batchwise) to the Scottish Animal Movements Unit for entry into the Scottish Animal Movements System (SAMS). From SAMS this information is uploaded into ScotEID. Cross-border movements entered into ScotEID are transferred from SAMS to AMLS once per week.

In England and Wales, movements of pigs must be notified in advance (except when moved to markets or collection centres), the animals must be accompanied by a haulier summary document and the completed movement document must be submitted by the proprietor of the holding of destination within three days. The information is entered electronically via an on-line portal by the farmers or via a bureau service. From the on-line portal the information is fed into the AMLS. Pig movements in Scotland must be notified to the ScotEID no later than the day of the movement and the receiving keeper must confirm the movement within three days.

The competent authorities in GB stated that from April 2014 a new e-reporting system for sheep and goats (and farmed deer) will be operational in England. Under this system, electronic reporting of individual movements will be compulsory for markets and abattoirs and optional for farmers. Data from this system will be consolidated at batch level and uploaded into AMLS. In Scotland, the system for electronic registration of movements of sheep, goats and pigs through markets (individual for sheep and goats) and electronic registration by keepers of batch movements between holdings is expected to move completely over to ScotEID by April 2014. At the time of this audit circa 90% of all pig movements were electronically reported. A similar electronic reporting system is planned also in Wales.

The AHVLA Specialist Service Centre in Cardiff, with around 30 staff, carries out tracings of animals with the aid of existing databases, for AHVLA, NDCC or LDCCs in GB in case of an outbreak of an exotic animal disease or for animal disease eradication programmes.

5.2.8.2 In Northern Ireland

Notifications of cattle, sheep and goat movements are made on-line by markets, abattoirs and approved assembly centres within 24 hours of receiving the animals, or via a DARD Office within

1 In their response to the draft report the competent authorities stated that this will change in England from April 2014 when it will be a legal requirement for markets/abattoirs/collection/assembly centres to report electronically directly into the database. Welsh Central Point Recording Centres will continue to forward animal identification numbers to the keeper and the local authority within 48 hours, until the Welsh movement database is live.

seven days (farm-to-farm, movements into NI from GB, intra-Union trade). The data are entered into the Animal and Public Health Information System (APHIS), which comprises the holding registers, herd data, movement data and animal health information for cattle herds/keepers, sheep flocks, goat herds, pig herds, poultry flocks and bird keepers as well as for those horse establishments which are related to trade. In addition to the DARD users, over 3000 stakeholders and 7000 keepers, primarily cattle keepers, have access to APHIS-on-line in order to enter data directly into the database.

All movements of pigs off a holding must be notified (batch-wise) to a DARD Office within seven days, for entry into APHIS.

The FVO team noted for UK that:

- the farm record requirements and the time limits for reporting movements to the authorities are in accordance with the requirements in EU legislation;

- farm records were in line with legal requirements and movement reports had mostly been submitted to the authorities within the time limits laid down in the holdings visited;

- the cattle and sheep observed during the visits to the livestock market in GB and the sheep assembly centre in NI were identified as required in EU legislation;

- all holdings with pigs need to be registered, also those with single pet pigs, and the competent authorities require owners who want to take their pigs for walks outside the holding to obtain a pig walking licence, issued by the local competent authority;

- in GB the times between the sheep movement and the registration into AMLS were sometimes in excess of one week, due to late submissions of written movement documents from farmers or delayed entry of data into the database by the responsible authorities[2];

- certain Local Authorities in England had handed over the registration of movements into AMLS to the AHVLA Specialist Service Centre due to insufficient staff resources for this task at local level. Six movement documents for sheep in the market visited were checked against the database entries made recently by the AHVLA Specialist Service Centre. Three of the database entries did not match the movement documents, either with regard to the number of animals moved or the identity of the holding(s) involved;

- on one of the farms visited, examples were seen where the arrival information of two consignments of sheep moved from England to a market in Scotland had been duly registered both in the holding records on the farm of origin and in the Scottish database, but not fed back into AMLS from Scotland, even though the movements had taken place two and three months earlier;

- the APHIS and CTS databases are linked together by the UK Cattle Movements database. Using this database, it was possible to quickly trace bovine animals which had moved

2 In their response to the draft report the competent authority stated that this is acknowledged and is one of the drivers for replacing the existing paper system in England, which is resource intensive and slow, with an e-reporting channel. From 1 April e-reporting will be available for all sectors of the sheep industry and will be mandatory for markets/abattoirs/collection and assembly centres. From this date responsibility for data capture is being transferred from Local Authorities to an external service provider.

between NI and GB, and to get a full list of holdings and movements in both jurisdictions for the animals since birth;

- for other species (sheep, goats and pigs) there are no electronic transfers of data between NI and GB databases. Movements of such animals between NI and GB are recorded in the relevant database in the dispatching country as "export" (used to define animals arriving from outside NI and GB, respectively), a veterinary health certificate is completed and recorded on the EU Trade Control and Expert System for notification to the authorities in NI or GB, as appropriate;

- the term "import" of ungulates is used by the devolved Administrations not only, as defined in Article 3(1) of Council Directive 2004/68/EC, for movements of ungulates into an EU MS from an authorised third country, but also for movements between another MS and UK (intra-Union trade) and when animals are moved within the UK across the Irish Sea between GB and NI.

5.2.9 Availability of equipment

Emergency equipment is available in AHVLA and DARD offices. Equipment for more extensive sampling, e.g. in restriction zones, is held at central levels and can be dispatched rapidly, when needed. Both AHVLA and DARD have agreements with suppliers of equipment and consumables and have no financial restrictions on purchases in an emergency.

Both AHVLA and DARD have numerous memoranda of understanding and contracts with third parties for assistance and supply of equipment (e.g. for culling, animal handling, disinfection etc) in an epizootic disease outbreak. The procurement procedures and maintenance of contracts and agreements are handled by dedicated units.

The FVO team noted that:

- pre-packed boxes of up-to-date equipment, personal protective equipment and forms needed to carry out investigations of suspect cases of poultry diseases, pig diseases and FMD were available in the AHVLA field offices visited;

- in NI a number of Veterinary Service staff have access to pre-packed boxes with personal protective equipment, sampling kits and initial response forms for FMD, AI and BT. Additional supplies of personal protection equipment and sampling kits are available in local DARD offices and in Larne Port;

- DARD and AHVLA have assigned staff who are responsible for maintaining stock levels of emergency equipment and for keeping supplies up-to-date.

5.2.10 Vaccination policy and availability of vaccine

Vaccines for ND and BT are commercially available and owners are free to decide if their vaccinate animals should be vaccinated. In addition, all domestic pigeons in UK must be vaccinated against Pigeon Paramyxovirus-1 if they are to be shown or raced and organisers of competitions and shows are obliged to ensure that all pigeons entered have been vaccinated.

In case of an outbreak of FMD, the Animal Health Act obliges the Secretary of State to consider

whether vaccination is more appropriate than any other means of preventing the spread of the disease. The general considerations on whether or not to carry out emergency vaccination in GB and the timing of such vaccination campaigns are covered in the GB strategy documents for FMD, CSF, AHS and AI. Defra has also published "Vaccination as a Control Tool for Exotic Animal Diseases –Key Considerations" (2009) which highlights some of the factors Defra would take into account when considering vaccination as a disease control tool and outlines Defra's framework for vaccination in England. In 2011 a decision was taken in GB not to vaccinate poultry against AI. This decision will only be reviewed in case of major changes to the structure of the poultry industry in GB or major changes in the AI epidemiology. Preventive AI vaccination is permitted only for zoo birds in England, following approval by Defra, but is not permitted at all in Scotland or Wales.

The contingency plans in England, Scotland and Wales comprise detailed descriptions of the different vaccination strategies for CSF and FMD, the types of vaccines and the decision-making process, complementing the GB strategy documents. Through a contractor, AHVLA has put in place an operational capacity to vaccinate within five days into an FMD outbreak, with 150 teams of trained lay "vaccinators" (450 persons) and 75 veterinarians for clinical checks and supervision. Non-veterinary personnel would be permitted to handle and administer FMD vaccine under specific national legislation.

The generic contingency plan for NI outlines that a decision to vaccinate for FMD must be based on epidemiological and scientific advice from the NI Strategy Group, which reports to the Minister. Comprehensive rules for suppressive or protective vaccination against FMD in NI are laid down in The Foot-and-Mouth Disease (Control of Vaccination) Regulations (Northern Ireland) 2006. Any decision to vaccinate against other diseases covered in the scope of this audit would be taken by the Strategy Group supported by a veterinary risk assessment and in line with the relevant criteria laid down in EU legislation. DARD would issue a decision to undertake a vaccination programme, specifying the scope, duration, restrictions and personnel involved, and create its own vaccination teams.

Recently updated (October 2013) "Common Chapters" of the contingency plans outline the agreed approach between the competent authorities in NI and in Ireland in the event of suspect or confirmed cases of FMD, BT and AI. With regard to FMD and AI, the chapters include agreements between DARD and its counterpart in Ireland to communicate before a decision to vaccinate is taken. These chapters state that both authorities would develop separate papers setting out the positions on vaccination. With regard to BT the chapter states that both authorities have decided to vaccinate in case of a confirmed outbreak in their respective jurisdictions.

The FVO team noted that:

- although plans and procedures for emergency vaccination are in place, the contingency plans do not identify, despite the requirement under EU legislation, the vaccine requirements for FMD, BT, CSF AHS, AI and ND should emergency vaccination be necessary;

- the NI Contingency Plan does not mention the NDCC, the NEG or any GB structures in the description of how a decision to implement emergency vaccination would be taken;

- although the possibility of emergency vaccination against CSF is included in the GB control strategy as well as in the GB Contingency Plans, Articles 19 and 20 of Council Directive 2001/89/EC, on emergency vaccination of farmed and feral pigs in a CSF outbreak, have not been transposed into national legislation in UK (see also point 5.7). Current legislation in

GB and NI prohibits vaccination against CSF and emergency legislation would be necessary in order to implement vaccination;

- UK no longer keeps its own stock of FMD vaccine and would rely on the EU vaccine bank for emergency vaccination.

Conclusions on Contingency Plans:

The UK is generally well-prepared to deal with outbreaks and to have the national and local disease control centres fully operational at short notice. Adequate expertise and equipment are available to ensure swift and effective action. However some regional AHVLA offices currently have limited or inconsistent internet access which would interfere with internal communication and make it difficult for such offices to carry out outbreak-related tasks efficiently.

The role of the NDCC is not in line with the requirements laid down in EU legislation (e.g. Article 74 of Council Directive 2003/85/EC) since, according to the contingency plans, there are command structures at the same level as the NDCC in both Scotland and Northern Ireland, which would be established if these areas were involved in an outbreak. These parallel command structures may undermine the ability of the NDCC to carry out its tasks as defined in Article 74(3) of Council Directive 2003/85/EC, particularly if decisions have to be taken on controversial issues, such as emergency vaccination.

The separate databases in place are generally fit for purpose for tracing movements of animals in an outbreak situation. However, although movement reports for sheep are submitted to the authorities there are certain problems with timely and correct registration by the authorities in GB and no links between the databases for sheep, goats and cattle in NI and GB, which may cause delays in identifying contact holdings in an outbreak. In addition, the use of the term "import" also for certain animal movements within UK and for movements from other MS, is misleading and fails to distinguish between movements within the internal market and movements into this market.

Vaccination strategies are in place but the incomplete transposition of EU legislation with regard to emergency vaccination for classical swine fever and the failure to define vaccine requirements in certain contingency plans may delay the implementation of emergency vaccination.

5.3 Preparedness and Awareness

Legal requirements

For all epizootic diseases relevant to this audit, there is a requirement that any occurrence of the disease is notified to the competent authority. With the exception of AHS, notification of the European Commission is mandatory. Surveillance programmes and systems for early detection of disease are required for BT (under certain circumstances) and AI. For some diseases, risk factors (e.g. areas of high animal density, worst cases scenarios) must be identified within the contingency plan. Specific preparedness and awareness criteria are specified for FMD; for most other relevant diseases, a communications strategy and appropriate communications training are required. The organisation of real-time alert exercises is required for FMD and AI. Alarm drills are required for CSF and ASF.

Findings

5.3.1 Epizootic disease risk analysis and alert levels

Defra's International Animal Disease Monitoring team is responsible for monitoring occurrence of major animal disease outbreaks worldwide. Preliminary outbreak assessments are issued which describe the disease event and assess the risk of introduction of the disease into the UK through trade/import. The team may also carry out full qualitative import risk assessments when there is a more long-term policy implication from the disease situation. These assessments are published on the Defra website. In addition, the team produces monthly internal reports of risk assessments regarding other MS and third countries. These reports are provided to relevant competent authorities, including border forces, and are used *inter alia* to target risk-based controls of animals and goods (including personal luggage) entering UK.

All contingency plans include alert levels for suspect and confirmed cases of exotic animal diseases.

The FVO team noted that:

- between 5 January 2012 and 3 November 2013 sixty preliminary outbreak assessments were published on Defra's website. The eight qualitative risk assessments published since February 2010 deal with chronic wasting disease, *Echinococcus multilocularis*, pet diseases and exotic ticks, West Nile Virus and Equine Infectious Anemia. All assessments are clear and concise and presented in the same template: Disease Report, Situation Assessment, Conclusion, Author(s) and References and include maps, where relevant;

- the Local Authorities in GB share intelligence about enforcement issues in order to ensure consistent approaches and to identify major players in illegal activities for example with regard to animal movements;

- the risk assessments and other risk guidance documents produced centrally and locally have been used by AHVLA, DARD and Local Authorities to target official controls;

- alert levels have been colour coded in all contingency plans but the numbers of levels and the definitions of the risk levels are different between the devolved Administrations. However, all plans have the same criteria for calling an Amber Teleconference, which is the starting point for communication and coordination between and within the Administrations in a potential outbreak;

- Core Groups of stakeholders have been identified and would be notified of new preliminary outbreak assessments and any heightened risk to the UK.

5.3.2 Notification requirements (peacetime)

All diseases which should be notifiable under EU legislation are notifiable in UK and there are clear procedures both in NI and in GB for dealing with notifications rapidly and consistently.

It is compulsory for any keeper or veterinary practitioner suspecting that an animal has an exotic notifiable disease to immediately notify the competent authority. In GB, the competent authority is the local AHVLA office where the Duty Veterinary Officer will assess the situation and arrange for an investigation to be carried out if required. In NI, suspect cases must immediately be notified to the DARD local Divisional Veterinary Officer.

5.3.3 Monitoring and surveillance systems

Passive surveillance

The following number of notified suspect cases were investigated in GB and NI. With the exception of 17 AI investigations and one CSF investigation, which were initiated following non-negative surveillance samples (all in GB), these cases were reported to the competent authorities within the framework of the passive surveillance system:

Disease	**January 2011 – October 2013**	
	GB	**NI**
AI*#	75	3
ND*#	58	3
BT	28	0
ASF	6	0
CSF	7	1
FMD	14	2
SVD	2	0
VS	2	0
AHS	1	0

**AI and ND were investigated in GB as part of investigations into suspect cases of "avian notifiable disease of poultry"*
 # in NI, these data include also wild bird passive surveillance

The investigating official veterinarian decides after clinical examination, and often after contacts with epidemiological expertise, if the suspicion of an exotic disease is supported and if samples should therefore be submitted for laboratory analysis. Suspicions of notifiable disease in poultry are routinely investigated for both ND and AI, unless the reason for the suspicion is clearly linked to one disease, such as non-negative results from avian influenza surveillance or pre-export testing.

Post mortem investigations (at reduced cost for the keeper) which form part of the passive surveillance system of livestock and horses are carried out by AHVLA in 14 centres across England and Wales, by DARD and by the Scottish Agricultural College.

The FVO team noted that:

- all of the FMD and AHS suspicions, and half of the CSF and AI suspicions listed in the table above had been negated following clinical examinations without sampling;

- in 2012, 533 wild birds in GB and eight wild birds in NI were sampled under the passive surveillance programme. This represented 64% of the target sample numbers indicated in the approved 2012 AI surveillance programme;

- during the first six months of 2013, 46% of the planned number of birds had been sampled under the passive AI surveillance programme;

- between January 2010 and October 2013, 11,463 bovines (38% in Scotland), 10,339 sheep (40% in Scotland) and 13 horses (10 in Scotland) had been submitted for post mortem examination in GB. In NI, during the same period, 11,160 bovines, 5,029 sheep and 136 horses had been submitted. The number of submissions were evenly distributed between the years. Based on 2012 data from DARD, SG and the UK national statistics, the bovine populations in NI and Scotland represent 17% and 18%, respectively, of the UK national herd and the sheep populations represent 12% (NI) and 28% (Scotland). Thus, the proportions of livestock submitted for post-mortem examination are substantially higher in NI than in GB, and higher in Scotland than in England and Wales;

- In the week after the FVO audit the AHVLA announced that during 2014 the number of AHVLA surveillance post-mortem centres would be reduced to seven, plus one poultry post-mortem centre in Scotland. A carcass collection service will operate from the closed sites for a period of three years. In addition, other providers of post-mortem facilities and pathologists (such as Universities) will be included in the surveillance system (following a procurement process) and private practitioners and the fallen stock industry will be trained and supported to carry out more diagnostic post mortem examinations. This system is intended to reduce the burden on the taxpayer, to concentrate the AHVLA competence and work load to fewer sites and to improve coverage of the surveillance.

Active surveillance/targeted surveillance

Samples submitted for routine diagnostics are sometimes tested for exotic diseases on the initiative of the competent authorities.

In addition to any risk-based testing of individual imported consignments of live animals and animal products based on the opinion of official staff at the Border Inspection Posts, UK has in place a system whereby a proportion of all consignments of live animals from other MS or third countries are selected at random for testing for relevant exotic animal diseases.

There is an active risk-based surveillance programme for AI, based on the criteria laid down in Commission Decision 2010/367/EU, which is approved and co-financed by the EU.

The FVO team noted that:

- the AI surveillance programme has been implemented in accordance with the approved plan;

- priority areas for the AI surveillance programme have been identified based on wildfowl abundance and the presence of high risk poultry holdings (species, outdoor areas etc), These areas include 40% of the counties in GB and the whole territory of NI;

- the AI sampling of poultry flocks is unevenly distributed over the year, with most of the samples taken during the late autumn. This is partly due to wild bird migration periods and the availability of turkeys and geese for sampling before Christmas;

- although the approved AI surveillance plan states that, outside the co-financed programme, approximately 50 samples from wild birds will be analysed as part of an active surveillance, no such samples had been collected in 2012 and 2013;

- in 2010-2013 the laboratory in NI had carried out routine tests for CSF on 741 pigs

submitted for post mortem examination (no suspicion of CSF), i.e. most of the pig carcasses received. In GB, around 4,000 pig samples per year had been tested for antibodies to CSF in connection with routine tests for artificial insemination centres and intra-union trade. There is currently no active surveillance of the disease status of the few wild boar populations;

- in NI, poultry samples submitted to the laboratory for testing for infectious laryngotracheitis have routinely been tested also for AI.

5.3.4 Public awareness activities in "peacetime"

Awareness campaigns, via media, through meetings and different types of information materials, are used to increase awareness and vigilance, for example among farmers, horse and pet owners, veterinary practitioners, airline/ship passengers, and birdwatchers in order to improve the passive surveillance for AI and other epizootic diseases.

The FVO team noted that:

- the risk assessments provided by Defra's International Animal Disease Monitoring team are written in a language that is easy to understand and are publicly available on the internet;

- one AHVLA office visited had identified farmers with high-risk operations (types of movements, types of production etc) and made targeted visits to raise awareness of the importance of biosecurity and to assist in changing risky routines on these holdings.

5.3.5 Biosecurity measures in place on animal holdings

5.3.5.1 Standstill periods linked to animal movements

Standstill periods, i.e. periods with no animal movements off a holding following certain types of movements onto the holding, are laid down in legislation in each of the four devolved Administrations.

The FVO team noted that:

- although the standstill periods were all introduced in UK following the 2001 FMD outbreak, to slow down the spread of disease in future outbreaks, they vary between different parts of the UK and range from 0 to 20 days for pigs and 1-13 days for ruminants and also vary with regard to which groups of animals in each holding the rule applies to;

- whilst in GB standstill rules normally apply to all susceptible species on the holding, in NI it is prohibited to move an animal to a market if the animal itself has been presented at a market within the previous six days, but no standstill rules apply to other animals on the holding.

5.3.5.2 Other biosecurity measures

Numerous fact sheets and leaflets providing guidance on biosecurity, in general as well as for specific animal species or specific pathogens, are available on the websites of Defra (with a link from the WG website), DARD and SG. There is a comprehensive table available on Defra's website listing all approved disinfectant products and their approved dilution rates for statutory use in GB

(FMD, SVD, AI/ND, tuberculosis and general use). A similar table is available on the DARD website, comprising those disinfectants on the GB list which have been authorised for marketing in NI.

Voluntary industry or retail driven quality schemes, which include biosecurity measures and often control visits, are in place in several agricultural sectors such as dairy, pigs and poultry. Participation in such schemes is used by the Local Authorities as a risk mitigation factor when they plan their official controls.

The FVO team noted that:

- the DARD list of approved disinfectants specifies that the dilution rates indicated for FMD and/or SVD relate only to effectiveness when applied to a clean area. No such information is included on the GB list.

5.3.6 Staff training

In UK, all staff involved in control and eradication of exotic animal diseases are regularly trained. New staff receive induction training and veterinary officers are given extra training and must receive on-the-job training to gain experience before performing on-call duty on their own. Specific training in animal welfare at depopulation is described in part 5.5.1 below.

In GB, there is a central plan for training and exercises to be carried out at local level and there is also the option to add local training activities as appropriate. The central AHVLA guidelines give the number of staff who should be trained whilst the regional offices decide the details. Training of staff is included in the scope of annual audits of local offices. For roles at managerial levels, GB staff are trained to fill several roles, so that no part of the organisation relies on one person. There is a GB level three day training programme for all case officers. Each case officer has to undergo a 1 day refresher course every 3 years in order to maintain their qualification as a case officer, and 147 case officers have been trained since 2008.

In NI, training is planned for all levels on a yearly basis. There is usually a focus on one animal species per year and the yearly training activities would cover *inter alia* the relevant diseases for that species. In addition, specific training for site operations controllers had most recently been provided in autumn 2013 to 22 DARD staff.

Staff in the national reference laboratories (NRL) are trained regularly according to the requirements linked to accreditation and, depending on disease scenario, the relevant staff also participate in exercises and alert drills. The two NRLs have been giving a training course in exotic notifiable disease for GB veterinary officers on several occasions. This course was most recently given in 2011. In NI, DARD and the NI laboratory give regular training courses for veterinarians. These include presentations by invited guest lecturers and have parts that focus on clinical and post mortem signs.

All staff are trained in their respective roles in the contingency plan. At operational level, all staff with direct roles in the contingency plan receive adequate training at least every third year (each office is required to perform yearly training activities). Staff records of all training are kept both at local and central levels.

Report cases are used for training as well as for revision of procedures and instructions. In GB the

standardised form for a veterinary inquiry (in response to a notification of a suspect case) has one part that includes evaluation and feedback from the central level to the local level and *vice versa*. There is a wash-up procedure at local level that will be reported to the central level, together with requests for improvement of procedures, where relevant.

The FVO team noted that:

- both AHVLA and DARD have systems in place to ensure that an appropriate number of staff are trained for each key role in their respective outbreak organisations and training is well documented;

- staff were well aware of the need for training and training records and records of report cases were demonstrated to the FVO team in GB and in NI;

- in one of the AHVLA regions visited, the number of reported cases was sufficient to maintain the awareness of staff, whilst in the other visited regions, reported cases were less frequent;

- all evaluations of reported cases and actions taken were recorded at central level and evidence was seen that these had been used by the AHVLA to improve manuals and instructions. In NI, feedback from the handing of reported cases had led to a revision of sample submission routines.

5.3.7 Simulation exercises

In the past five-year period, two national exercises have been held, one on FMD in 2010 and one on CSF in 2013. The FMD exercise did not include any fictive cases in NI, but NI has exercised FMD in a small simulated outbreak in NI on at least one occasion in recent years.

The national FMD exercise in 2010, "Silver birch", included a field element, a tabletop exercise and multiple strategic response meetings before a two-day live national simulation exercise, in total covering the first week of a simulated outbreak. The scenario included several infected premises in England Scotland and Wales. Over 600 participants took part in the exercise, including Ministers, CVOs and senior officials from all four UK devolved Administrations, the Animal Health Agency (now part of AHVLA), and key operational partners. Stakeholders were also engaged. Certain representatives of stakeholders and organisations responsible for the control of disease outbreaks in other countries participated in the live exercise.

The national CSF exercise in 2013, "Walnut", included several workshops and a field exercise as well as a two-day live simulation exercise. The scenario included a number of infected premises in England, Scotland, Northern Ireland and Wales and covered the first 5 days of the outbreak.

Lessons learned include the need to review communication with the devolved Administration in NI so as to ensure the necessary flow of information between GB and NI. The representatives from GB and NI stated that this will be further discussed and addressed.

Another point raised in "Silver birch" concerned difficulties in tracing animals, especially when markets were involved. "Walnut" did not involve any markets, so this was not addressed. The specialised tracing team placed in Cardiff was operational in "Walnut" and the outcome of their activities was positive.

The number of exercises at local (operational) level in the past five years was on average eight per year, both in NI and in GB. These exercises covered different aspects and staff categories. Some of the local exercises included more than one AHVLA region. Staff from the CEDCC(NI) and NI LDCC have participated as observers in GB exercises and some NI exercises have involved the competent authority in Ireland, which is always invited to observe exercises in NI and *vice versa*.

The FVO team noted that:

- the national exercises involved all four devolved Administrations as well as the competent authorities for environment and food safety and a number of stakeholders;

- both national exercises included case investigations, tracing (backwards and forwards), sample collection and transport, culling and carcass disposal, cleaning and disinfection of infected holdings, establishment of movement restrictions (on holdings and in zones). Vaccination strategies were discussed and resources needed for vaccination were estimated but neither exercise included any emergency vaccination activities. Communication between devolved Administrations, other government bodies and stakeholders was an important element in both exercises;

- both national exercises had been thoroughly evaluated. An evaluation and lessons identified report is available for "Silver birch", as well as a 12-month follow-up report. No evaluation report was available for exercise "Walnut" at the time of the audit but the team was given a verbal account of the exercise, major points that were raised and how key points from the previous exercise were dealt with;

- staff at all levels were well aware of the value of exercises and willing to participate in these activities;

- a key point identified in "Silver birch" was insufficient IT connectivity in some regions. This was not a major problem in "Walnut" but was observed to remain a problem in some regions visited by the FVO team;

- the scenario in exercise "Walnut" included a significant number of suspect CSF cases that were negated on clinical grounds. Although this may have been useful for discussions on resource prioritisation it is somewhat doubtful for this particular disease and could, in a real outbreak situation, lead to failure to detect spread of the disease;

- most issues in the outcome of national exercises have been addressed. Lessons learnt from exercises have been used for review of contingency plans and procedures.

Conclusions on Preparedness and Awareness:

The UK has a well-developed and effective system for identifying animal disease risks and for disseminating information about these. Active surveillance for AI is implemented in accordance with the approved programme. Few notified suspect cases have lead to sampling for exotic diseases, which is compensated for to a certain extent by testing for AI and CSF in routine samples.

On-farm biosecurity measures in peacetime are voluntary with the exception of standstill periods when animals have been introduced on holdings. However, the stakeholder perception and effectiveness of these rules may be undermined by the wide range of standstill periods which apply

across the devolved Administrations to the same type of animal movements. Targeted on-site visits by AHVLA staff in one office to increase the biosecurity awareness in "high-risk" holdings were examples of good practice.

The UK has a well-established system for training and exercising staff at all levels, including good systems for feed-back and implementation of lessons learnt, laying the foundation for optimal communication at national level between the devolved Administrations, including in a crisis. However, the significant number of CSF cases negated on clinical grounds in the recent exercise could, if this practice would be applied in a real outbreak, lead to failure to detect spread of disease.

5.4 LABORATORIES

Legal requirements

Articles 11 and 12 of Regulation (EC) No 882/2004 set out requirements in relation to sampling, analysis and official laboratories, including that laboratories must be accredited to and operate in accordance with ISO 17025.

Specific requirements relating to laboratories are laid down in the various Directives on epizootic disease control including the designation and functions of National Reference Laboratories, the tests and criteria to be applied, and the provision of adequate diagnostic capabilities and capacity. Diagnostic manuals are provided for FMD, CSF, ASF, SVD and AI (see Annex 2).

Findings

Three laboratories in UK are involved in testing samples for the diseases covered in the scope of this audit.

Defra has designated Pirbright Institute as the UK NRL for AHS, ASF, BT, FMD, SVD, VS, EHD, PPR, RP, LSD, SGP and RVF; and designated AHVLA Weybridge as the UK NRL for AI, ND, CSF and RVF. These NRLs also function as control laboratories and are responsible for testing suspect samples and for confirmatory analyses for the listed exotic diseases. In addition, AHVLA Weybridge is designated for analysis of samples for AHS, BT, FMD, SVD, VS, PPR, PR, and SGP, mainly to be prepared for testing in case of an emergency where the NRL cannot cope with larger sample numbers.

AHVLA Weybridge is the EU reference laboratory for AI and ND and Pirbright Institute is the EU reference laboratory for FMD, SVD and BT.

The Agri-Food and Biosciences Institute (AFBI) NI has been designated by DARD for analysis of NI samples for AI, ND, BT, CSF and ASF. AFBI would carry out initial testing of suspect samples for AI, ND, CSF, ASF and BT. Positive samples would be sent to the appropriate NRL for confirmation. In case of a suspicion of another notifiable exotic disease, AFBI would be responsible for sample receipt from DARD field staff, preparation, packing and submission of samples to the appropriate NRL. Once an outbreak has been confirmed, AFBI would be involved in testing for ND, CSF and BT whilst other samples would be sent to the NRL for analysis. AFBI would also be involved in any post-outbreak surveillance for AI, ND, FMD, CSF, ASF and BT.

The FVO team noted that:

- contingency plans were in place in all three laboratories for the upgrading and extension of containment facilities in an emergency. These plans include *inter alia* contact details for on-duty staff in the laboratory and competent authorities, reporting routines and the capacity and procedures for up-scaling in an emergency;

- appropriate methods for screening and confirmation are available in UK for all diseases within the scope of this audit, except RVF. The testing methods within the scope of this audit were validated and included in the scope of accreditation, with the exception of the analytical methods for RP (officially eradicated globally), which are not within the scope of accreditation;

- the laboratories had regularly organised (NRLs) and participated in (all three laboratories) proficiency tests with satisfactory results for the relevant diseases;

- the laboratories have been involved in exercises and training of staff involved in sampling of suspect cases;

- turnaround times had been agreed with the competent authorities for analysis of suspect samples.

The FVO team visited AHVLA Weybridge and noted that:

- there are two containment level 3 facilities and three containment level 4 facilities, including facilities used as containment level 2 in peacetime which can be turned into level 4 by switching on the effluent treatment plant. Representatives of the laboratory stated that such level 4 switch exercises were carried out regularly;

- the laboratory has the capacity to increase to two eight-hour shifts in an emergency and peak capacity had been assessed per week during an outbreak. A maximum capacity to handle 120,000 serological samples per week would be reached by week ten (compared to 3-4,000 per week in peacetime);

- the contingency plan and sample handling procedures assume samples come into the laboratory via AHVLA services. Results are normally provided to AHVLA but in an outbreak situation ELISA results can be transferred to the NDCC electronically from the laboratory information management system;

- the laboratory would be notified when suspect sampling takes place and have routines in place to notify AHVLA if samples do not arrive as planned.

The FVO team visited Pirbright Institute and noted that:

- the contingency plan for Pirbright Institute dealt only with samples coming in through the AHVLA, i.e. samples from GB. There was no recognition in the contingency plan of suspect or other samples arriving from NI and the representatives of the laboratory stated that samples from NI would be handled in the same way as samples from other MS or from third countries;

- there is no mentioning of Pirbright Institute in point 3 laboratories in AHVLAs Operations Manual for Exotic Disease Responsibilities;

- the laboratory would be notified by AHVLA when suspect sampling takes place. Notification procedures from NI were not defined;

- the laboratory capacity has been defined and is discussed with Defra annually. For ELISA tests Pirbright Institute would be able to increase from 1500 tests week one to 30,000 tests week three. If more samples need to be analysed they would be tested primarily in AHVLA Weybridge, or in AFBI;

- the laboratory information management system is linked with Defra's information system;

The FVO team visited AFBI NI and noted that;

- standard operating procedures for submission of samples to the NRL were in place but there are no written agreements between AFBI or DARD and the NRLs, regarding analyses for epizootic diseases in samples from NI;

- results from the relevant NRLs are sent to AFBI and to DARD in parallel;

- results of analyses are transmitted to DARD via e-mail. There is currently no link between the laboratory information management system and APHIS but the representative for the laboratory stated that this may be possible in the next version of the system;

- during the FMD outbreak in 2001, AFBI carried out FMD serology on up to 15,000 samples per day (overflow samples from Scotland) under derogation. The capacity for polymerase chain reaction (PCR) testing has been assessed to at least 200 samples per day.

Conclusions on Laboratories:

The three laboratories together provide the necessary expertise, methods and testing capacity for ensuring reliable detection and control of exotic notifiable diseases in the UK. However, the lack of formal agreements between the competent authority in Northern Ireland and the NRLs, and the lack of procedures in the NRLs for handling samples taken in Northern Ireland, may delay the analysis of such samples if Great Britain experiences a widespread outbreak at the same time.

5.5 Depopulation for epizootic disease control

Legal requirements

Council Regulation (EC) No 1099/2009 lays down rules for the killing of animals, including when this is performed for the purpose of depopulation. In particular, Article 18 of the Regulation requires that the stunning and killing methods planned and the corresponding standard operating procedures for ensuring compliance with the rules laid down in the Regulation shall be included in the contingency plans required under Union law on animal health, on the basis of the hypothesis established in the contingency plan concerning the size and location of suspected outbreaks, and that, when implementing depopulation, the competent authority shall take any appropriate action to safeguard the welfare of the animals in the best available conditions.

Findings

5.5.1 Slaughter/killing

Council Regulation (EC) No 1099/2009 is directly applicable in the UK. Additional implementing legislation is published and in force in Scotland (Welfare of Animals at the Time of Killing (Scotland) Regulations 2012) since 1/1/2013, while the competent authorities stated that the implementing legislation in England, Northern Ireland and Wales will be similarly named and in force in early 2014. Usually, national implementing legislation mainly concerns rules on penalties applicable to infringements of Council Regulation (EC) No 1099/2009 and its enforcement but may also include national requirements, additional to the ones in the Regulation. This is the case in the UK where the national implementing legislation has some additional details, e.g. concerning slaughterhouses and on-farm killing. An additional requirement of particular relevance is that any derogation from one or more provisions of Council Regulation (EC) No 1099/2009 in relation to a depopulation (envisaged in its Art. 18(3) for exceptional circumstances) that is granted by the competent authority, must be published.

The disease outbreak control procedures in the UK specifically require that an official veterinarian must always be designated to supervise animal welfare during depopulation. This official veterinarian would work in cooperation with the case officer (GB) or site operations coordinator (NI) to ensure that the killing operations (by contractors in the case of GB and by the DARD teams in the case of NI) are done with satisfactory animal welfare and to report on any difficulties encountered during the killing.

In NI, killing during an outbreak would be performed by DARD staff. This would be done by the Humane Slaughter Team, the Whole House Gassing Team or the Containerised Gassing Team. The first team would perform the killing of mammals with free bullet and the other two killing of poultry with gas, these being the preferred depopulation methods in NI. Representatives of DARD stated that the humane slaughter team has 13 qualified staff and in case of need it could also avail of 10 more, equally qualified personnel, which are not in the veterinary service. All these 23 people train together four times per year, with the 13 staff in the humane slaughter team being also, throughout the year, involved in routine killing of animals on farm due to e.g. accidents or tuberculosis control measures. In addition, the whole house and containerised gassing teams were regularly trained and four of the site operations coordinators had also attended containerised gassing unit training.

The Farm Animal Welfare Committee is an expert committee in Defra. One of its four standing committees, the Standing Committee, Welfare at Killing, has the specific purpose of providing independent scientific support to Defra and the Devolved Administrations in Northern Ireland, Scotland and Wales in relation to Council Regulation (EC) No 1099/2009.

Framework contracts for providers of slaughtermen and marksmen are established at central level in GB after a tender process. Public tenders are made for the framework contracts and after their selection and approval the list of contracted service suppliers is maintained at central level (GB) by AHVLA.

The FVO team noted that:

- DARD has produced the following estimates of maximum kill rates, for the preferred depopulation methods, to assist the competent authority when deciding if the above mentioned derogation might be needed: Poultry in containerised gassing unit approximately 2,000 birds per hour and with whole house gassing 2 houses/day/team; Pigs/sheep with free

bullet, 20 animals in 5-15 minutes (up to 100 sheep in 20 minutes from experience); Cattle with free bullet, 30-40 animals per hour;

- in GB, AHVLA has software at its disposal that allows it to estimate maximum kill rates under variable conditions for both mammals and poultry, called the "FMD Cullculator" and the "AI Cullculator". These would help with deciding if a derogation would be needed. This software was developed using statistical data from the FMD and AI outbreaks in 2007. Data to be added by the user includes: killing method, species number and type of animals present in the holding, type of housing, if animals are used to being handled, distance to disposal site and its capacity, and so on. Using such data the "Cullculator" provides an estimate of the human resources needed, including how long it would take for each step of the operation (from initial inspection of the animals, through culling, carcass disposal, and disinfection of the holding);

- the UK Contingency Plans and operational manuals have recently been reviewed and updated, taking into account the requirements of Council Regulation (EC) No 1099/2009. However, no hypotheses have been established (required by Art. 18(1) of the Regulation) on the size and location of suspected outbreaks in any of the existing plans or manuals;

- 68 veterinarians and technicians have been trained on poultry culling in GB since 2009. A certificate of one such training, held in 2011, was provided to the audit team showing that AHVLA, in cooperation with the Humane Slaughter Association, provided a two-day training on culling of poultry, with both theoretical and practical components. The training included legislation, codes of good practice, best practices for animal welfare during catching, handling, manual neck dislocation, mechanical percussive culling and assembly and operation of containerised gassing units;

- since 2012 AHVLA has provided training in GB for 281 staff on handling of animals, and in 2013 to 223 staff on the additional national implementing legislation for Council Regulation (EC) No 1099/2009 as well as refresher training for 22 staff on killing with free bullet;

- Defra has funded several studies to obtain the scientific support (envisaged in Art. 20(1)(a) of Reg. 1099/2009) to assist it in developing novel humane killing methods that could be used during outbreaks;

- the framework contracts were valid for 4 years but the approved service suppliers are only called in to provide the service in question for a defined period depending on needs. This could be for days, weeks or more depending on the outbreak. In case of an outbreak, the field staff will provide information on what resources are needed (equipment, human resources, depopulation, disposal) and the NDCC will allocate the necessary resources, selecting from the approved suppliers;

- in GB, standard operating procedures for killing were not a clear requirement in the currently valid tenders which were published in 2011, before Council Regulation (EC) No 1099/2009 became applicable. The contracts are valid for four years. During a depopulation operation the competent authority would currently check if contractors had the relevant licenses and certificates but would not check that standard operating procedures for killing, in compliance with the Regulation, are in place;

- in NI, there is no single document for each method that could be considered a killing

standard operating procedure. When combining all the information from the different reference documents for a depopulation operation (equipment operating instructions, animal welfare checklist, health and safety checks, and so on) almost all the key parameters required under Annex I of Council Regulation (EC) No 1099/2009 were available except for gas temperature (when killing with gas);

- in the UK the depopulation report forms contain fields for all the information required by Art. 18(4).

5.5.2 Protection of animal welfare

In GB the preferred killing method for mammals is penetrative captive bolt pistol and pithing. In NI the preferred killing method for mammals during depopulation is with free bullet. For poultry the preferred killing method throughout the UK would be the use of containerised gassing units. The final decision on which killing method to use would be made by the central level, in NI or GB, based on the available resources and the information provided by the on-site teams.

There are specific provisions in GB allowing exemptions to movement restrictions of animals during outbreaks if there are animal welfare reasons. While such provisions do not exist in NI DARD representatives stated that such provisions could be put in place rapidly under a Ministerial order.

The FVO team noted that:

- representatives of the NI DARD humane slaughter and containerised gassing teams interviewed could show the respective equipment and provided good descriptions of how they would perform killing during depopulation, taking into account good animal welfare practices, site conditions, operations safety and the possible effect of the operation on the animals' keepers;

- in GB, the official veterinarian responsible for supervising the pig farm visited, who had investigated a possible suspicion of CSF two years earlier, could identify where to find available supporting information for the selection of an adequate depopulation method. The veterinarian on site could also provide satisfactory information on what criteria would be taken into account in that particular farm to choose between the stunning and killing methods that could be used.

Conclusions on depopulation for epizootic disease control

The systems in place in the UK are mostly in line with the requirements of Regulation (EC) No 1099/2009 with the two following exceptions: In the UK, contrary to the requirement of Art. 18(1) of Reg. 1099/2009, no hypothesis establishing the size and location of suspected outbreaks has been included in any of the existing contingency plans (or in the operational manuals); In GB the system in place does not ensure that the contractors performing the killing will have the standard operating procedures required under Article 18(1), while in NI the existing instructions are not really standard operating procedures and do not include one key parameter that should be part of such procedures.

5.6 Disposal of carcasses

Legal requirements

Regulation (EC) No 1069/2009 and Regulation (EU) No 142/2011 lay down health rules for animal by-products and derived products, in order to prevent and minimise risks to public and animal health. In particular, Articles 12 and 13 of Regulation (EC) No 1069/2009 specify the disposal routes for animals and parts of animals killed for disease control purposes. By way of derogation from these rules, Article 19(1)(e) of this Regulation allows the disposal of these by-products by burning or burial on site. Article 15(a) of Regulation (EU) No 142/2011 sets out the special rules to be followed in case this derogation is used.

In relation to FMD controls, Directive 2003/85/EC (Article 72 (1), (4) and (5) and Annex XVII Points 13 and 14) requires that the means of disposal of carcasses and animal waste does not cause environmental damage and that appropriate sites and undertakings for the treatment or disposal of animal carcasses and animal waste be identified in the contingency plan.

Findings

The preferred option for carcass disposal in the UK is rendering for both small and big outbreaks with all efforts to be made to ensure that on-farm pyres or mass burial do not have to be used.

The competent authorities have identified a relatively low rendering capacity in NI, and the complex logistics of bringing carcasses from outbreaks in Scotland to the rendering facilities further south, as possible problem points during bigger outbreaks. One of the means under consideration for alleviating those problems would be using commercial landfill as a means of disposing of category 3 material and releasing that processing capacity for upgrading to and processing of category 1 or 2 material from outbreaks. This is being considered as a preparation measure under a possible future tender for a framework contract (GB) or a Memorandum of Understanding (NI).

In GB tenders for framework contracts for transport for disposal, rendering, incineration and managing logistics of transport for rendering were issued and lists of approved providers are available at central level (following the same process as mentioned in section 5.5.1). In NI similar provisions are in place via Memorandums of Understanding with both public and private entities.

AHVLA estimated that the total rendering capacity in GB would be approximately 20-25,000 tonnes per week but this would require that all category 3 material is re-routed to landfill sites; work is on-going together with the environmental authorities in GB to identify such sites.

In GB the tender for transport and disposal covers the relevant requirements concerning transport, handling and rendering of animals killed for disease control purposes to ensure proper bio-security.

The FVO team noted that:

- the competent authorities do not expect the disposal to be a bottle-neck in a major outbreak but rather expects the time-limiting factors to be the catch and kill activities;

- the rendering establishment visited had adequate space, biosecurity measures and transport vehicles to handle a major outbreak and had been involved in most of the major outbreaks with a maximum capacity to render in excess of 2,000 tonnes per day. It was accredited to business process, environmental and occupational health standards The contract with Defra covered i) transport, ii) plant facilities and labour and iii) rendering, which could be called upon separately by Defra, who also hold framework agreements with other companies for drivers. In addition, Defra can, under derogation, make use of un-trained drivers for up to

two weeks, during which time training would be fast-tracked;

- the rendering establishment visited had a contingency plan in place which covered all main aspects of outbreak management and operations, including media contacts;

- the operator of the rendering establishment visited, included in the approved providers lists, satisfactorily explained, and demonstrated, some of the modifications that would be made to work flows and procedures if dealing with disposal during an outbreak;

- in NI, biosecurity requirements are adequately covered in instructions and standard operating procedures for DARD staff supervising rendering establishments during disposal.

Conclusions on disposal of carcasses

There is a well set up system in place for carcass disposal, to prevent and minimise risks to public and animal health during outbreaks, in line with EU requirements. However, in Scotland and NI rendering high volumes of carcases would cause more difficulties.

5.7 Follow-up of recommendations in the UK Country Profile (DG (SANCO)/2012-6426)

The FVO team noted that:

- with regard to the transposition of Articles 19 and 20 of Council Directive 2001/89/EC these have not been transposed into national legislation (GB or NI). The competent authorities stated that the revision of the swine disease control legislation is still on-going. Thus, the status with regard to **Recommendation 18512 in the follow-up module of the UK Country Profile remains unchanged;**

- with regard to the intra-Union trade of sheep from NI to Ireland, such animals were despatched from the Assembly centre visited to a slaughterhouse in Ireland without certification regarding the EU rules on residency and movements of animals to the holding of origin (Article 4(a) and (c) of Council Directive 91/68/EEC). As previously stated by the UK competent authorities, most recently during the revision of the UK Country Profile (DG(SANCO)/2012/6424 Rev.1 Final, valid as of September 2013), these movements take place within the framework of a derogation under Commission Decision 2003/483/EC. This decision was valid 1 July 2003 to 30 June 2004. Thus, the status with regard to **Recommendation 26725 in the follow-up module of the UK Country Profile remains unchanged;**

- Defra re-confirmed that the authorities is not currently transposing the EU-requirements regarding sheep and goat "dealers" (Article 8b(1) of Council Directive 91/68/EEC) into GB legislation[3]. In NI, the drafted new legislation, which may introduce the registration of

3 In their response to the draft report the competent authorities stated : We are committed to implementing the EU requirements for dealers. However, it is clear that the Animal Health Regulation proposals intend to repeal Directive 91/68 and implement new rules governing dealers (Part 4, Title I, Chapter 1, Section 2,). Given these changes and the existing inconsistencies between dealer registration requirements across species we believe that it is necessary to wait the outcome of these negotiations before introducing legislation to specifically register dealers. As previously explained all keepers of livestock in GB are registered. It is possible to already identify from our existing central movement databases which keepers are likely to be dealers by the volume of movements that take place. The Animal Health SAM IT system also holds details of customers and contacts; these existing registrations potentially contain dealer information.

"dealers" for sheep and goats in NI, will only be brought to the Minister if a planned veterinary risk assessment would show that its introduction would mitigate animal disease risks. Should this be the case, the earliest introduction of the "dealer" concept in NI would be the second half of 2014. Thus, the status with regard to **Recommendation 2007-7577-5 in the follow-up module of the UK Country Profile remains unchanged.**

6 Overall Conclusions

In general, the UK competent authorities are well-prepared for dealing with epizootic outbreaks. Adequate legislation, capable laboratories and robust structures are in place, as well as procedures for ensuring that trained staff, equipment and facilities are available. However, the role of the National Disease Control Centre and the command structures in case of outbreaks in Northern Ireland or Scotland is not clear in the contingency plans in these devolved Administrations, which may impede coordinated actions in an outbreak. In addition, the contingency plans in the national reference laboratories are focussing on samples taken in Great Britain and there are no formal agreements or procedures in place for dealing with samples taken in Northern Ireland, which may delay the analysis of such samples if Great Britain and Northern Ireland experience simultaneous outbreaks.

Active and passive surveillance programmes are in place although the tendency to negate suspect cases on clinical grounds both in practice and during exercises could, if applied during a real outbreak, lead to failure to detect spread of disease.

Although vaccination strategies are in place, the incomplete transposition of EU legislation on emergency vaccination against CSF and the failure to define vaccine requirements in certain contingency plans may delay the implementation of emergency vaccination.

The substantially different standstill rules across UK may undermine public perception, and thus the impact, of these important biosecurity measures. There is a system in place for tracing movements of animals but the deficiencies observed, with regard to delayed or incorrect registration of sheep movements and the fact that only cattle movements can be traced in a single database when animals have moved between GB and NI, may delay the identification of contact holdings in an outbreak.

The systems in place for depopulation and disposal of carcasses in the UK are largely in line with EU animal welfare and carcass disposal requirements during an outbreak.

The status of recommendations 18512 (in progress), 26725 (action still required) and 2007-7577-5 (action still required) in the follow-up module of the UK Country Profile DG(SANCO)/2012-6426 remain unchanged.

7 Closing Meeting

A closing meeting was held on 29 November 2013 with representatives of the competent authorities from the four devolved Administrations. At this meeting, the main findings and conclusions of the audit were presented by the audit team. During the meeting the representatives of the competent authorities did not indicate any major disagreement with the findings and preliminary conclusions.

8 RECOMMENDATIONS

The competent authorities are invited to provide details of the actions taken and planned, including deadlines for their completion ('action plan'), within one month after receipt of the report, aimed at addressing the recommendations set out below.

Please note that although the status of recommendations 18512 (in progress), 26725 (action still required) and 2007-7577-5 (action still required) in the follow-up module of the UK Country Profile DG(SANCO)/2012-6426 remain unchanged, these recommendations will be dealt with when the Country Profile is reviewed and will not be repeated in this report.

N°.	Recommendation
1.	The competent authorities should ensure that the role of the National Disease Control Centre for UK is clearly identified, in all contingency plans in the UK, in accordance with Article 74 of Council Directive 2003/85/EC.
2.	The competent authorities should ensure that the guidelines in Chapter III of Commission Decision 2002/106/EC (CSF), Chapter III of Commission Decision 2003/422/EC (ASF) or Chapter II(2),(5) and (6) of Commission Decision 2006/437/EC (AI), as relevant, have been considered before suspect cases of these diseases are negated on clinical grounds.
3.	The central competent authorities should ensure that the contingency plans for FMD, CSF, AHS and AI identify the vaccine requirements considered necessary in the event of emergency vaccination, in line with the requirements laid down in Article 72(3)(a) of Council Directive 2003/85/EC, Article 22(1)(a) of Council Directive 2001/89/EC, Annex IV(9) to Council Directive 92/35/EEC and Article 62(2) of Council Directive 2005/94/EC, respectively.
4.	The competent authorities should ensure that all devolved Administrations have reliable access to the services of the National Reference Laboratories so that suspect samples from all parts of the UK can be quickly transported to the relevant laboratory for analysis in order to meet, in particular, the requirements laid down in Annex XV(5) of Council Directive 2003/85/EC.
5.	The competent authorities should ensure that the term import, when referring to live ungulates, is used only when the animal movement meets the criteria of Article 3(1) of Council Directive 2004/68/EC.
6.	The competent authorities should ensure that the contingency plans establish hypotheses concerning the size and location of suspected outbreaks, as required by Article 18(1) of Regulation (EC) No 1099/2009.
7.	The competent authorities should ensure that in accordance with the rules laid down in

N°.	Recommendation
	Article 18(1) of Regulation (EC) No 1099/2009, standard operating procedures are drafted for all planned stunning and killing methods and that such procedures are included in the contingency plans.

The competent authority's response to the recommendations can be found at:

http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_inspection_ref=2013-6776

Annex 1 - Legal References

Legal Reference	Official Journal	Title
Reg. 882/2004	OJ L 165, 30.4.2004, p. 1, Corrected and re-published in OJ L 191, 28.5.2004, p. 1	Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules
Dir. 2003/85/EC	OJ L 306, 22.11.2003, p. 1-87	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
Dir. 2005/94/EC	OJ L 10, 14.1.2006, p. 16-65	Council Directive 2005/94/EC of 20 December 2005 on Community measures for the control of avian influenza and repealing Directive 92/40/EEC
Dir. 2000/75/EC	OJ L 327, 22.12.2000, p. 74-83	Council Directive 2000/75/EC of 20 November 2000 laying down specific provisions for the control and eradication of bluetongue
Dir. 2001/89/EC	OJ L 316, 1.12.2001, p. 5-35	Council Directive 2001/89/EC of 23 October 2001 on Community measures for the control of classical swine fever
Dir. 2002/60/EC	OJ L 192, 20.7.2002, p. 27-46	Council Directive 2002/60/EC of 27 June 2002 laying down specific provisions for the control of African swine fever and amending Directive 92/119/EEC as regards Teschen disease and African swine fever
Dir. 92/119/EEC	OJ L 62, 15.3.1993, p. 69-85	Council Directive 92/119/EEC of 17 December 1992 introducing general Community measures for the control of certain animal diseases and specific measures relating to swine vesicular disease
Dir. 92/35/EEC	OJ L 157, 10.6.1992, p. 19-27	Council Directive 92/35/EEC of 29 April 1992 laying down control rules and measures to combat African horse sickness

Legal Reference	Official Journal	Title
Dir. 92/66/EEC	OJ L 260, 5.9.1992, p. 1-20	Council Directive 92/66/EEC of 14 July 1992 introducing Community measures for the control of Newcastle disease
Reg. 1266/2007	OJ L 283, 27.10.2007, p. 37-52	Commission Regulation (EC) No 1266/2007 of 26 October 2007 on implementing rules for Council Directive 2000/75/EC as regards the control, monitoring, surveillance and restrictions on movements of certain animals of susceptible species in relation to bluetongue
Dec. 2010/367/EU	OJ L 166, 01.07.2010, p. 22-32	2010/367/EU: Commission Decision of 25 June 2010 on the implementation by Member States of surveillance programmes for avian influenza in poultry and wild birds
Dec. 2006/437/EC	OJ L 237, 31.8.2006, p. 1-27	2006/437/EC: Commission Decision of 4 August 2006 approving a Diagnostic Manual for avian influenza as provided for in Council Directive 2005/94/EC
Dec. 2003/422/EC	OJ L 143, 11.6.2003, p. 35-49	2003/422/EC: Commission Decision of 26 May 2003 approving an African swine fever diagnostic manual
Dec. 2002/106/EC	OJ L 39, 9.2.2002, p. 71-88	2002/106/EC: Commission Decision of 1 February 2002 approving a Diagnostic Manual establishing diagnostic procedures, sampling methods and criteria for evaluation of the laboratory tests for the confirmation of classical swine fever
Dec. 2000/428/EC	OJ L 167, 7.7.2000, p. 22-32	2000/428/EC: Commission Decision of 4 July 2000 establishing diagnostic procedures, sampling methods and criteria for the evaluation of the results of laboratory tests for the confirmation and differential diagnosis of swine vesicular disease
Reg. 1099/2009	OJ L 303, 18.11.2009, p. 1-30	Council Regulation (EC) No 1099/2009 of 24 September 2009 on the protection of animals at the time of killing

Legal Reference	Official Journal	Title
Dir. 2008/71/EC	OJ L 213, 8.8.2008, p. 31-36	Council Directive 2008/71/EC of 15 July 2008 on the identification and registration of pigs (Codified version)
Reg. 21/2004	OJ L 5, 9.1.2004, p. 8-17	Council Regulation (EC) No 21/2004 of 17 December 2003 establishing a system for the identification and registration of ovine and caprine animals and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC
Dir. 91/68/EEC	OJ L 46, 19.2.1991, p. 19-36	Council Directive 91/68/EEC of 28 January 1991 on animal health conditions governing intra-Community trade in ovine and caprine animals
Reg. 1760/2000	OJ L 204, 11.8.2000, p. 1-10	Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97
Reg. 1069/2009	OJ L 300, 14.11.2009, p. 1-33	Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)

Annex 2 - Summary of legal requirements

Related to Contingency Planning for Epizootic Disease

Criteria	Disease and applicable legislation							
	FMD Dir. 2003/85	**BT Dir. 2000/75 Reg 1266/2007**	**CSF Dir 2001/89 Dec. 2002/106**	**ASF Dir 2002/60 Dec. 2003/422**	**SVD Dir. 92/119 Dec. 2000/428**	**AHS Dir. 92/35**	**AI Dir 2005/94 Dec. 2006/437 Dec. 2010/367**	**ND Dir 92/66**
Requirement for approval by Commission	Art 72 (6) – (9)	Art 18 (2)	Art 22 (3)	Art 21 (3)	Art 20 (3) & (4)	Art 17(2)	Art 62 (4)	Art 21 (3) & (4)
Requirement to update on 5 yearly basis	Art 72 (10)		Art 22 (3)	Art 21 (3)			Art 62 (5)	
Disease notifiable within MS	Art 3 (1)(a)	Art 3	Art 3 (1)	Art 3 (1)	Art 3	Art 3	Art 5 (1)	Art 3
Disease notifiable to Commission /other MS	Art 3 (2)	Dir. 82/894: Art 1 & 3	Art 3 (2)	Art 3 (2)	Dir. 82/894: Art 1 & 3	Dir. 82/894: Art 1 & 3	Art 5 (2) Annex II (details notification requirements)	Dir. 82/894: Art. 1 & 3
Co-operation with other CAs within MS	Art. 74(3) (d),(g) & (i) Annex XVII (6)						Art 62 (3)	
Co-ordination with neighbouring MS & TC	Art 72(2) Art 17 provides for co-ordination by Commission/ ScoFCAH					Art 8 (2)(c) (where PZ, SZ includes territory of other MS)		
Sufficient legal powers to control outbreaks	Annex XVII (1)	Annex III (10)	Annex VII (a)	Annex VI (a)	Annex IV (10)	Annex IV (10)	Annex X (13)	Art 26(1) (requiring transposition) Annex VII (10)
Chain of command	Annex XVII (3)		Art. 23(6) Annex VII (c)	Annex VI (c) Art 22 (6) (for NDCC, LDCC)				
NDCC / LDCC	Art. 74 – 77 Annex XVII (4) & (5)	Annex III (1) & (2)	Art 23	Art. 22(2), (3) & (4)	Annex IV (1) & (2)	Annex IV (1) & (2)	Art 62 (6) Annex X (1) & (2)	Annex VII (1) & (2)
Permanent expert group	Art 78 Annex XVII (7)		Art 23 (5)	Art 22 (5)			Art. 62(6)	

Criteria	Disease and applicable legislation							
	FMD Dir. 2003/85	**BT Dir. 2000/75 Reg 1266/2007**	**CSF Dir 2001/89 Dec. 2002/106**	**ASF Dir 2002/60 Dec. 2003/422**	**SVD Dir. 92/119 Dec. 2000/428**	**AHS Dir. 92/35**	**AI Dir 2005/94 Dec. 2006/437 Dec. 2010/367**	**ND Dir 92/66**
Information on personnel, qualifications, responsibilities		Annex III (3)			Annex IV (3)	Annex IV (3)	Annex X (3)	Annex VII (3)
Operational manual	Annex XVII (9)		Annex VII (e)	Annex VI (e)				
Instructions available to staff		Annex III (6)	Annex VII (e)	Annex VI (e)	Annex IV (6)	Annex IV (6)	Annex X (6)	Annex VII (6)
Questionnaire for epidemiological enquiry	Art. 13(1)		Art. 8	Art. 8			Art 6 (1) Annex X (3)	
Staff training	Annex XVII (11.1) & (11.3)	Annex III (7)	Annex VII (g) (i)	Annex VI (f)(i) & (f) (iii)	Annex IV (7)	Annex IV (7)	Annex X (7)	Annex VII (7)
Access to sufficient financial resources	Annex XVII (2)		Art 22 (1) Annex VII (b)	Annex VI (b)				
Availability of equipment and materials	Art 72 (2) Annex XVII (2) & (8)	Art 18 (1) & Annex III (5)	Art. 22(1) Annex VII (d)	Art 21 (1) Annex VI (d)	Art 20 (1)	Art. 17 Annex IV (5)	Art 62 (2) Annex X (5)	Art 21(1) Annex VII(5)
Diagnostic capabilities and capacity	Art 71 & Annex XVII (8)	Annex III (8)	Art. 17 (d) Annex VII (d)	Annex VI (d)	Annex IV (8)	Annex IV (8)	Annex X (8)	Annex VII (8)
Disease surveillance programme/ early detection		Art. 4 and Annex I & V to Reg 1266/2007					Art 1 (1) Art 4 (1) & (2) & Dec. 2010/367	
Definition of worst case scenario	Annex XVII (12)							
Areas of high population density identified	Art 72 (3)(b) Regions of densely populated areas Def: Annex X, (3)		Art 22 (1)(b) Regions with high density of pigs (higher level of awareness/preparedness)	Art 21 (1)			Annex X (12) Art. 62(2) Annex X (10) Registration of	

Criteria	Disease and applicable legislation							
	FMD Dir. 2003/85	**BT Dir. 2000/75 Reg 1266/2007**	**CSF Dir 2001/89 Dec. 2002/106**	**ASF Dir 2002/60 Dec. 2003/422**	**SVD Dir. 92/119 Dec. 2000/428**	**AHS Dir. 92/35**	**AI Dir 2005/94 Dec. 2006/437 Dec. 2010/367**	**ND Dir 92/66**
			Definition: Art 2(u) 300 pigs/km				commercial poultry holdings	
Vaccination requirements identified	Art 72 (3)(a)	Annex III (9)	Art 22 (1)(a)			Annex IV (9)	Art. 59(1) Art 62 (2)	Art 21 (1) Annex VII (9)
Availability of vaccine identified					Annex IV (9)		Annex X (9)	
Plans & procedures for emergency vaccination	Conditions and criteria specified in Art 49 – 58 & Annex X	Conditions and criteria specified in Art 5 & 6 (as amended by Dir. 2012/5)	Annex VII (f) Annex VI (criteria for deployment of emergency vaccination)				Annex X (9)	
Means of destroying carcases		Annex III (6)			Annex IV (6)	Annex IV (6)	Annex X (6)	
Environmentally sound means of disposal of carcases, etc.	Art 72 (1), (4),(5) Annex XVII (13) & (14)							
Real time alert exercises	Art 73 & Annex XVII (11.2)						Art 62 (6) (COM may make further rules)	
Alarm drills	Annex XVII (11.2.4)		Annex VII (g) (ii)	Annex VI (f)(ii)				
Co-operation with neighbouring MS in exercises	Art 73 (2) & Annex XVII (11.2)							
Communications strategy	Annex XVII (15) & (11.3)	Art 14	Art. 23(6) Annex VII (g) (iii)	Annex VI (f)(iii)	Annex IV (4)	Annex IV (4)	Annex X (4)	Annex VII (4) Art 13 (information to PZ, SZ)
Disease awareness and preparedness	Art 72(1) Annex XVII (11.3)		Art 22(1)(b) – regions with high density pig population					
Preventive vaccination							Dec. 2007/598 - in approved bodies, zoos (list) Special	

Criteria	Disease and applicable legislation							
	FMD Dir. 2003/85	**BT Dir. 2000/75 Reg 1266/2007**	**CSF Dir 2001/89 Dec. 2002/106**	**ASF Dir 2002/60 Dec. 2003/422**	**SVD Dir. 92/119 Dec. 2000/428**	**AHS Dir. 92/35**	**AI Dir 2005/94 Dec. 2006/437 Dec. 2010/367**	**ND Dir 92/66**
							identification of vaccinated birds	
Diagnostic methods specified	Art 71 & Annex XIII		Diagnostic manual: Decision 2002/106/EC	Diagnostic manual: Decision 2003/422/EC	Diagnostic manual: Decision 2000/428/EC		Diagnostic manual: Decision 2006/437/EC	