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**FINAL REPORT OF A MISSION
CARRIED OUT IN THE NETHERLANDS
FROM 6 TO 9 JUNE 2006
IN ORDER TO ASSESS ANIMAL WELFARE
AT SLAUGHTER**



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EXECUTIVE SUMMARY

This report describes the outcome of a mission carried out by the Food and Veterinary Office (FVO) in the Netherlands, from 6 to 9 June 2006.

The objectives of the mission were to evaluate the system of supervision of animal welfare at the time of slaughter and killing and assess national measures taken in relation to methods of stunning or killing not specified in Council Directive 93/119/EC, in particular to examine measures which may be relevant to the revision of this Directive, currently being considered by the Commission services.

The report concludes that several legislative measures and procedures impose a higher standard than the corresponding EU requirements; however, there are certain other EU provisions, including aspects relating to animal welfare both within and outside slaughterhouses, which are not dealt with comprehensively by documented procedures. The CCA are progressively addressing these gaps.

The CA has evaluated the different methods for the mass killing of animals, drawing on its extensive experience in dealing with previous outbreaks of epizootic disease and, with the exception of arrangements regarding electrical stunning of pigs, has chosen appropriate methods for each species. The CA has not established any measures to ensure that the EU requirements for killing fur animals are respected. The CA has, however, been pro-active in promoting humane killing of fish, which is not the subject of specific EU legislation.

The report makes a number of recommendations addressed to the competent authorities of the Netherlands, aimed at rectifying the identified shortcomings and further enhancing the control measures in place.

1. INTRODUCTION

The mission took place in the Netherlands from 06/06/2006 to 09/06/2006. The mission team comprised three inspectors: two from the Food and Veterinary Office, and one from the relevant policy unit of the Directorate General for Health and Consumer Protection. The inspection team was accompanied during the whole mission by representatives from the Central Competent Authority, the Dutch Ministry of Agriculture, Nature and Food Quality (*Ministerie van Landbouw, Natuur en Voedselkwaliteit –LNV*) (hereafter: CCA).

The mission was undertaken as part of the FVO's planned mission programme and is the third in a series of missions on animal welfare at the time of slaughter. An opening meeting was held on 6 June 2006 with the CCA. At this meeting, the objectives of, and itinerary for, the mission were confirmed by the inspection team, and additional information required for the satisfactory completion of the mission requested.

2. OBJECTIVES OF THE MISSION

The objectives of the mission were to evaluate the system of supervision of animal welfare at the time of slaughter and killing and to gather information on national measures taken in relation to methods of stunning or killing not specified in EU legislation¹, Council Directive 93/119/EC², in particular to examine details of measures which may be relevant to the revision of Council Directive 93/119/EC currently being considered by the Commission services.

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

COMPETENT AUTHORITY VISITS			Comments
Competent authority	Central	3	Opening and final meetings with the CCA One meeting with the Head of the Incident and Crisis Centre Unit.
Slaughterhouses		4	Two red meat slaughterhouse: One performing ritual slaughter on sheep, the other on calves. Two poultry slaughterhouses, one slaughtering ducks and the other the parent stock of egg laying hens.
Fish farm and processing plant.		1	One eel farm and processing plant.

3. LEGAL BASIS FOR THE MISSION

The mission was carried out under the general provisions of Community legislation³ and, in particular: Article 14 of Council Directive 93/119/EC, Article 45 of

¹ All legal references refer , where applicable to the latest amended version

² Council Directive 93/119/EC of 22 December 1993 on the protection of animals at the time of slaughter or killing, OJ L 340, 31.12.1993, p 21

European Parliament and Council Regulation (EC) No 882/2004⁴ and the general provisions of Commission Decision 98/139/EC⁵.

4. BACKGROUND

Two previous missions to the Netherlands, which included animal welfare at the time of slaughter, were undertaken from 7 to 11 January 2002 and 3 to 7 February 2003 (reports DG SANCO/8503/2002 and DG SANCO/9214/2003). Additionally two missions in 2003 looked at the contingency plans for dealing with outbreaks of epizootic disease (reports DG SANCO/9196/2003 and DG SANCO/9174/2003). Aspects relating to killing animals on farm were also considered in report 1235/99 concerning the protection of calves and pigs confined for rearing and fattening. The reports of these missions are available under their reference numbers (hereafter: reports 8053/2002, 9214/2003, 9196/2003 9174/2003 and 1235/99) on the Directorate General for Health and Consumer Protection internet site at http://europa.eu.int/comm/food/fvo/index_en.htm.

5. MAIN FINDINGS

5.1. Competent authority

5.1.1. Structure and organisation

Central Competent authority

All the Services with competences in animal welfare at slaughter and transport belong to the Directorate General for Agriculture (*Directie Landbouw – DL*) of the Ministry LNV (CCA). The Department of Food Quality and Animal Health (VD) (formerly VVA) is the policy department of the LNV responsible for, amongst other issues, animal welfare, and is where the office of the Chief Veterinary Officer (CVO) is located.

The VWA (*Voedsel and Waren Autoriteit* - Food and Consumer Product Safety Authority) and the AID (*Algemene Inspectie Dienst*, General Inspection service) are responsible for inspection and supervision. Since 1 January 2006, the RVV (*Rijksdienst voor de keuring van Vee en Vlees* - Inspection Service for Livestock and Meat) and the KvW (*Keuringsdienst van Waren*, Inspectorate for Health protection and Veterinary Public Health) are fully integrated into the VWA. The AID is responsible for enforcement action and further information on this aspect is available in report 9214/2003. Additional information on all the services is available on the internet site of LNV (<http://www.minlnv.nl>), the VWA (<http://www.vwa.nl>) and in report 8503/2002.

⁴ Regulation (EC) n°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 OJ L 165, 30.04.2004 corrected and republished in OJ L 191, 28.05.2004, p.1.

⁵ Commission Decision 98/139/EC of 4 February 1998 laying down certain detailed rules concerning on-the-spot checks carried out in the veterinary field by Commission Experts in the Member States, OJ L 38, 12.02.98, p.10.

Regional Competent Authorities

The integration of RVV and KvW into VWA also affected the functions and structure of the regional level responsible for the controls of animal welfare in slaughterhouses.

Each of the five regions has a veterinarian of the Department of supervision and development coordinating the team area leaders responsible for the OV's of the slaughterhouses. In addition a veterinarian from one of the regions has been nominated to give direct technical support to the CCA.

5.2. Legislation

The Dutch law on animal health and welfare (*Gezondheids- en Welzijnswet voor Dieren van 1992*), in particular Article 44 which refers to slaughter and killing of animals, is the basis for subsequent legislation. The national legislation transposing Council Directive 93/119/EC includes the Decree on killing animals (*Besluit doden van dieren*) and the Regulation on killing animals (*Regeling doden van dieren*), both of which are from 1997. Further legislation relevant to this mission included a Decree on the act of ritual slaughter (*Besluit ritueel slachten 1994*) and the Regulation for authorising slaughterhouses for ritual slaughter (*Regeling aanwijzing slachthinrichtingen 2004*).

Specific requirements of Dutch legislation which are additional to those in Directive 93/119/EC are mentioned in the following sections, as relevant.

5.3. Slaughterhouses

5.3.1. Supervision and inspections

Training

Introduction courses are given every time a group of new officials is recruited. The training contains theoretical and practical modules. During the visits, the OV's of the sheep and the hen slaughterhouses indicated that in the introductory training course they attended in 2005 no animal welfare topics were covered. The CA indicated that with the coming into force of the new EU hygiene and control rules applicable since 2006 (European Parliament and Council Regulations (EC) No 852/2004⁶, No 853/2004⁷, No 854/2004⁸ and No 882/2004) some changes in the programme are being introduced.

⁶ Regulation (EC) n° 852/2004 of the European Parliament and of the Council of 29 April 2004 on hygiene of food stuffs OJ L 139, 30.04.2004 p 3, as corrected OJ L 226, 25.06.2004 p.3-21.

⁷ Regulation (EC) n° 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for food of animal origin OJ L 139, 30.04.2004 p. 55, as corrected OJ L 226, 25.06.2004 p.3-21.

⁸ Regulation (EC) n° 854/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for food of animal origin OJ L 139, 30.04.2004 p. 83, as corrected OJ L 226, 25.06.2004 p.3-21.

Approval of slaughterhouses

The CA indicated that since 1 January 2006 the approval of slaughterhouses is based on the requirements of the new EU hygiene and control rules applicable since 2006 and that animal welfare is taken into account when the design of the establishment, including the stunning equipment, is considered.

Supervision

Supervision within slaughterhouses is general and not specific for animal welfare. Report 9214/2003 indicated that there was a lack of emphasis on animal welfare requirements in checklists in particular regarding stunning equipment. The CCA have updated instructions, where animal welfare issues are integrated with other checks, highlighting to check the appropriateness of stunning and bleeding. A supervisor from the regional CA checks the quality of controls performed by the OV by checking records and joint inspections with the OV.

5.3.2. Inspections in poultry meat slaughterhouses

Legislation

Regarding duration and strength of the current in water bath stunners, the CA has determined, as required by point II, 3, B, 1 of Annex C of Directive 93/119/EC, a minimum duration of four seconds for all poultry and in the case of chickens, a minimum strength of 100 mA has been laid down.

Inspections

The CCA has produced a comprehensive series of documents in order to help the OVs when performing animal welfare inspections in poultry meat slaughterhouses:

- An instruction to ensure that the production data, which provides the total number of deaths during the fattening period and the OV indicated that action is taken if this number is higher than 5% of the birds.
- An instruction regarding the transport of poultry, including checks of the number dead on arrival at the slaughterhouse. In relation to the height of transport modules it indicates that the birds must be able to stand/sit in their natural position and a height of 24-27 cm for birds less than 4 kg. It also indicates that crates with birds should be handled with care.
- The ante mortem check list, in which welfare, transport density and approval of transporters were to be checked for each batch.
- A daily control check list, which included aspects from the level of the suppliers to those at the time of stunning.
- The post mortem forms, with particular attention drawn to signs of inadequate bleeding and serious injuries.

In addition to the supervision by the CA, each operator operated “own checks” which included in particular the preoperational check list where, among others issues, electrical parameters were included.

It was noted that:

- The controls performed by the OV were based on a daily routine using the forms mentioned above.
- The OVs performed adequate checks to assess the transport conditions upon their arrival at the slaughterhouses. In the duck slaughterhouse overstocking during transport had been reported and a written warning issued to the operator indicating that any recurrence would result in the AID being informed for possible further enforcement action.
- In both poultry slaughterhouses, neither the ducks nor hens were able to stand up in their natural position in the crates, contrary to the requirements of point 34 (b), Chapter IV applying paragraph 2 (a), Chapter I of the Annex of Council Directive 91/628/EEC⁹.
- Regarding lairaging in the hen slaughterhouse, the ventilator fans were powerful but noisy and ventilation was not well distributed. In the lairage of the duck slaughterhouse some birds were caused unnecessary excitement due to cleaning proceeding too close to the vicinity of the transport crates in which the birds were held. Handling and time between shackling and bleeding were adequate.
- National requirements regarding electrical parameters for water bath stunners for chickens were respected, and although such parameters have not been determined by the CA for ducks, contrary to the requirements of point II, 3, B, 1 of Annex C of Directive 93/119/EC, a current of 130 mA was used which is that recommended in the report of the European Food Safety Agency¹⁰. A high frequency stunner (2kHz) was used in the hen slaughterhouse and the minimum current was achieved. In the duck slaughterhouse the stunning was not fully effective as after bleeding a low percentage (5%) of the animals had neck contraction and around 2% had palpebral reflex. It was noted that not all birds' heads were fully immersed in the water bath. The CCA indicated that this deficiency will be investigated as soon as possible.
- In the hen slaughterhouse, the operator's quality manual was based on the requirements of a supermarket quality assurance scheme, which included requirements for a device to introduce the head into the bath, emergency slaughter by neck dislocation, checks of electrical parameters of the stunner every three months, daily check of the alarm of the stunner, steps to take in the event of power failure, including the availability of emergency power and a plan to bleed and unshackle the birds. However the CA had not instructed OVs to perform audits of the operator's own checks contrary to Article 10 (2) of Regulation (EC) No 882/2004.

⁹ Council Directive 91/628/EEC of 19 November 1991 on the protection of animals during transport and amending Directives 90/425/EEC and 91/496/EEC, OJ L 340, 11.12.1991, p.17.

¹⁰ Opinion of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to welfare aspects of the main systems of stunning and killing the main commercial species of animals, The EFSA Journal (2004), 45, 1-29. see: www.efsa.eu.int

- Regarding the hen slaughterhouse, although the automatic neck cutting was adequate and the OV knew the critical points to be checked, the OV did not take any action when no back up neck cutter was present at the beginning of the shift (Directive 93/119/EC, Annex C, 3 B Point 5).

5.3.3. Inspections in red meat slaughterhouses

In addition to requirements for ante mortem checks, an instruction dated 27.12.2005 indicates that:

- Adequate provision is made for the welfare of the animals upon arrival in the slaughterhouse. This instruction reminds OVs that the slaughterhouse operator is responsible for making arrangements with those supplying animals to ensure that all animals are fit for transport at the start of their journey. This instruction differentiates between animals that cannot stand and animals that once standing after some assistance can move without help. The OV may decide to immediately kill any animal if animal welfare is compromised unacceptably.
- In relation to stunning and bleeding, three points were included in a general check list for post mortem inspection. The first asked for a check of shooting position and placement of electrodes, the second voltage, stunning, and CO₂ levels and assessment of consciousness and the last stunning to bleeding time.

The CA indicated that the instruction regarding unfit livestock needs to be updated, as after the entry into force of the new EU hygiene and control rules applicable since 2006, the dedicated emergency slaughterhouses have closed or been transformed into ordinary slaughterhouses.

In relation to the checks observed during the mission, it was noted that:

- Adequate checks were made to assess the fitness of animals for transport and special pens were designated to deal with sick/injured animals. The OVs indicated that animals, which were not able to walk, were stunned on the truck.
- In the red meat slaughterhouses visited a protocol was in place regarding unfit animals. In one slaughterhouse, in accordance with this protocol, two cases had been reported to the AID for enforcement action, and the slaughterhouse had been kept informed on the status of the procedure. In the first case the farmer had received a warning and the farm was subject to regular monitoring. The second case concerned an animal with multiple bruising and this case was closed as it was not possible to prove how the mistreatment occurred.
- Apart from ante mortem and post mortem records designed for public health requirements, the system for recording animal welfare inspections in red meat slaughterhouses was operated differently in the two regions visited. In the North West region the CA had produced their own more detailed checklist which in addition to prompting the OV to assess certain issues, provided some explanation of the norms required. In the East region they

used the general check list provided by the CCA which did not request checks of maintenance of stunning equipment or the method of restraint.

5.3.4. Risk assessment and programme of audits

Since 1 January 2006 a system has been set up for controlling slaughterhouses in order to comply with Regulations (EC) No 882/2004 and No 854/2004. For each slaughterhouse there is an annual control plan and the total number of audits depends upon the results of risk assessment. However, the criteria used to judge the risk presented by an establishment are related to food hygiene and no specific criteria have been included for animal welfare. The CA indicated that risk assessment of animal welfare requirements have not yet been taken into account as there is a national project to visit the establishments to establish this by 2007.

Planning of internal audits has not been carried out contrary to Article 4 (6) of Regulation (EC) No 882/2004.

5.3.5. Training of slaughterhouse staff

It was noted that:

- Despite the lack of CA involvement on this issue, the operator of the poultry slaughterhouse visited had organised training of the staff provided by an in-house “Poultry welfare officer”. This was organised due to their participation in a supermarket quality scheme.
- In the red meat slaughterhouses an attestation of competence of the slaughtermen had been issued by the religious authorities. This attestation was different in each slaughterhouse, one was more detailed on the legal provisions indicating the power of the OV to withdraw the licence to carry out the tasks. There was no evidence that animal welfare training had been considered prior to granting the attestation of competence.

5.3.6. Ritual slaughter of cattle and sheep

Article 5 (2) of Directive 93/119/EC lays down that in case of slaughter required by certain religious rites, the requirements regarding stunning before slaughter shall not apply. In the Netherlands most of the Islamic or Jewish ritual slaughter is practiced without stunning, some form of stunning is sometimes accepted under the Islamic ritual, which is the prerogative of each religious leader.

In the Netherlands, all ritual slaughtering has to be performed in accordance with the Dutch decree on ritual slaughter. Specific requirements for religious slaughtering of animals include:

- A bovine animal immobilised in a properly functioning restraining device must be turned on to its back by means of a restraining device, after which the cut must be performed without delay. The system of restraint for bovines must have a timed-lock, which shall be activated immediately after severing of both carotid arteries, in order to make it impossible to cease the restraint for at least 45 seconds after cutting the throat.
- Sheep and goats must be restrained by at least two persons or in a restraint device by at least one person. After severing both carotid arteries, sheep and

goats shall be restrained for at least 30 seconds in the position they had at the time the cut was applied and shall not be subjected to further dressing procedures within this period of time. This minimum time is also set in a specific instruction for poultry.

- A person, other than those involved in restraining the animal, shall perform the cut with a razor-sharp knife. This shall be performed immediately after the animal is restrained, prayers or any other actions may never delay application of the cut and the animal shall be bled in accordance with the requirements of Annex D of Directive 93/119/EC.
- The OV is permitted to impose additional conditions on the process.

As far as legislation, VWA-inspections and slaughtering procedures are concerned, there is no discernable difference between Islamic or Jewish slaughtering. The list of slaughterhouses authorised for this purpose is published in a Regulation (*Regeling aanwijzing slachtinrichtingen*) with the species and the yearly and daily maximum of ritually slaughtered animals for each slaughterhouse indicated.

Slaughter without stunning is performed after assessment of the information provided according to a “declaration of need” by the official Islamic or Jewish organisations, which also includes the species and numbers needed. Persons are authorised for slaughter according to Jewish ritual by the Chief Rabbi of the Netherlands or for slaughter according to Islamic ritual by persons appointed by organisations which may be regarded as representing all or a specific group of Muslims.

The CA indicated that, where ritual slaughter takes place, in addition to the normal checks performed at all slaughterhouses, the OV checks if the minimum bleeding times laid down in national legislation (30 seconds for poultry, sheep, goats; and 45 seconds for bovines) are respected. Regarding the inspections in the two slaughterhouses visited it was noted that:

- The OVs had not verified whether the maximum capacity for ritually slaughtered animals had been exceeded or not.
- The OV checked aspects of ritual slaughter in the same way as normal slaughter and in addition checked for any delay in neck cutting after restraint, the sharpness of the knife, the cutting of both carotids and the minimum bleeding time without any further processing.
- The calves were first restrained in a cylindrical rotation crate with a capacity for two calves, one restrained prior to rotation and one in an upside down position ready for slaughter. A mechanical device extended the head to ensure a good presentation of the throat to the slaughter man, who cuts it severing both carotid arteries after which the time locker is activated ensuring no further procedures were carried out for at least 45 seconds. A manual extension of this time was on occasion necessary to ensure adequate bleeding (Annex B, point 1 of Directive 93/119/EC).
- The sheep were restrained with the help of a restrainer plate by the same person who cut the neck. After this, the time lock is activated to ensure no

further procedures were carried out for at least 30 seconds, to allow death by bleeding to take place.

- The restraint was effective and the slaughterman achieved quick and effective bleeding; however, the OV had recorded two cases this year in which the slaughterman avoided the use of the automatic restrainer. These had been communicated orally to slaughterhouse management, but no written notification had been given, contrary to Regulation 854/2004, Article 5(3) and Annex I section II chapter I, 2.

Religious festivals

During the three days of the religious festival (*Aid el Kebir*) many slaughterhouses are solely slaughtering according to Islamic rituals. Every year the CA issue a specific instruction to the OVs ("*Instructie offerfeest*"- Instruction Hajj) for this event, emphasising that for each slaughterhouse the authorised maximum number of animals slaughtered per day must be respected. In addition to this, information is addressed to the slaughterhouses and to the public.

Following an evaluation of previous such events, the CA recommended that from 2007 establishments receiving infringement notices or those passing the slaughter quota should be penalised with sanctions up to and including the permanent withdrawal of the authorisation for such events.

5.3.7. Reporting of animal welfare inspections

Reporting of animal welfare checks in slaughterhouses has been required since 1 January 2006 by Regulation EC (No) 854/2004 Annex I section II chapter I, 1 & 3. The CA indicated that animal welfare inspections are included in the general reporting system described in the general guidelines for audits and set up for food hygiene. It was noted that:

- In red meat slaughterhouses one region, which had produced a more detailed checklist, had more comprehensive records that checks of all requirements had been made. The region using the CCA checklist had some records but these did not give a sufficient overview that the necessary checks had been made.
- In poultry slaughterhouses welfare requirements were more comprehensive and the reports were better harmonised.

5.4. Slaughter and killing outside slaughterhouses

5.4.1 Legislation

The Dutch legislation has several specific provisions for animals slaughtered outside slaughterhouses which expand on the requirements of Directive 93/119/EEC:

- Slaughtering on the farm or at home of pigs, sheep and goats is not legal other than emergency slaughter, in which case the presence of an OV or registered veterinarian at the actual stunning and slaughtering of the animals is compulsory.
- Slaughter of farmed game by the use of a free bullet pistol or rifles is allowed on condition that it is operated within 25 m of the animal concerned and the farm has

an authorisation. The authorised persons who may use this method are those licensed to use firearms. However, the CA indicated that deer are mainly stunned using electrocution and slaughtered by bleeding. It is forbidden to slaughter raptites outside a slaughterhouse.

- The concept of "unfit for transport" is defined in the national legislation, with several examples given, such as animals with a clear rise of temperature, serious weight loss, fractures which hinder movement or those with extensive injuries. Such animals must be killed on the spot or if the condition is less severe, and the journey would not provoke unnecessary suffering, they can be transported to a slaughterhouse within a radius of 50 km.
- A veterinarian is required where the euthanasia of sick or injured animals is required to be carried out on farm.

A recommendation in report 1235/99 asked the CA to consider permitting a stockman, who can demonstrate the necessary knowledge and skill, to humanely kill animals such as moribund piglets. The CA indicated that partly as a result of this recommendation, the killing of animals receives extra attention in practical training for farmers and has become an integral part of the curriculum. The killing of animals is also an important part of the farm management courses which are also given as part of practical training. The participants in management courses are mainly young farmers, but veterinarians also follow them, as part of their refresher training. The inspection team pointed out that sometimes the requirement for the presence of a veterinarian, as required by Articles 4 and 6 of the Decree on the killing of animals could delay the killing of sick or injured animals on farms such as those of low economic value such as moribund piglets.

5.4.2 System of inspections

Checks are performed during visits to farms or during checks at markets and assembly centres. In relation to emergency slaughter on farm, the CA has provided a decision tree to assist veterinarians in linking their judgment on the fitness of the animal with the appropriate action to follow such as euthanasia of the animal or slaughter on farm with the carcass sent to the slaughterhouse. Fitness for human consumption is the over-riding factor which needs to be considered and, in most cases, carcasses are not sent to the slaughterhouse due to the subsequent risk of rejection.

5.5. Killing animals for disease control purposes

5.5.1. Structure and organisation

In relation to the killing of animals for disease control, the CCA is again the LNV. However, at VWA level, the Directorate of Operations is the responsible body which includes the Central Disease Centre and representatives in each of the five regions. The Animal Health and Disease Control Department of this Directorate update the contingency plans, which contain the operational manual for each disease, organise and evaluate training (including animal welfare) and give technical support during outbreaks. Staff involved include:

- The VWA animal disease experts, who visit a farm after notification of a suspect case.

- The five members of the so called “front teams”, the veterinarian, the first co-worker, the sanitary worker, the administrator and the coordinator who also usually a veterinarian. Slaughterhouse staff could also be members of these teams. Currently there are 16 teams dispatched in the five regions.
- The RCC heads of departments for all relevant topics for managing a department of the crisis centre.
- Crisis managers, i.e. regional and deputy Directors and selected personnel (one of these will be the RCC crisis manager).

The general structure and organisation of contingency plans is described in previous reports 9196/2003 and 9174/2003. Administrative procedures can be found in the operational contingency plans for eradication of certain animal diseases on the website of the VWA: <http://inter.rvv.agro.nl/default.asp?publicatie=6711>.

5.5.2. Implementation

The CA has extensive experience from previous outbreaks of Classical Swine Fever (CSF) in 1997, Foot and Mouth disease (FMD) in 2001 and Avian Influenza (AI) in 2003, where a total of 10.3 million pigs, 386,000 cattle and 31.6 million poultry were respectively killed.

Training

The CA indicated that simulation and practical exercises on large scale culling, which are carried out at least once a year for their own personnel and for external partners, include issues relating to animal welfare. Training also takes place twice a year through the use of crisis handbooks and also as part of the modular training courses for staff. The CA explained that the purpose of training the “front teams”, in particular the veterinarian and the first co-worker, is to ensure they can act on their own in a fast and flexible manner, and can train new personnel in a crisis centre through crisis analysis and task related training.

Contingency plans

Contingency plans prescribe that animal welfare rules shall be followed during the whole process and culling shall be stopped immediately if animal welfare is jeopardized. The CA indicated that the animal welfare requirements are not prescribed in detail in the contingency plan itself but in the contracts with external parties. To ensure that the animal welfare requirements are met during killing for disease control, the CA:

- Has modelled the logistics involved for a mid-size crisis for several diseases, this could be scaled up or scaled down according to the size of the outbreak. In addition, the CA stressed the importance of staff experience and team building motivation and the need of replacement during the outbreaks.
- Has collected data from previous outbreaks which have been analysed and used to improve the system of culling.

- Has made arrangements with the personnel employed in slaughterhouses and with farmers' and hunters' associations, to ensure sufficient and appropriate personnel are available for handling and killing animals in such situations.
- Has materials and equipment either in stock or available through contracts made with external bodies. Although the pig mobile electrocution units are state owned, the rest of the materials are privately owned but are available, according to the contract, within four hours.

The group of companies providing the equipment also provides services related with all aspects of culling of poultry (catching of birds, logistics and personal protection), also formulating culling protocols for all the parties involved and organising training exercises.

Killing methods

Methods used during the outbreak of Classical Swine Fever included, electrocution, lethal injection and killing in slaughterhouses. During Foot and Mouth Disease, the same methods were used plus shooting of wild animals. Bringing the animals to a slaughterhouse was the choice for small outbreaks in particular where pigs and cattle were concerned. During Avian Influenza, an additional method was the use of CO₂ gas. The advantages, disadvantages and parameters used for poultry, cattle and pigs were presented by the CA, in particular the in-house killing of (non aquatic) poultry by CO₂ and the electrocution of pigs.

Lethal injection is a much practiced method which is additional to the methods which cause certain death laid down in Annex C of Directive 93/119/EC. The CA indicated that material necessary for injections is in stock in the regional offices. However, the CA did not provide any instructions regarding the doses for each species.

Methods used for poultry

The use of CO₂ gas directly pumped into the building which houses the birds (Modified Atmosphere technique) is the CA's preferred method for killing large flocks.

- The CA has a contract with a company that supply the CO₂. After the CA provides the dimensions of the building the specialist company under contract decides the amount of CO₂ necessary for a given farm.
- The CA indicated that in close cooperation with the major CO₂ provider 13 to 16 farms can be depopulated in 24 hours, that cage buildings are in general easier to seal than barn or free range buildings and that eight operational teams which are composed of a mixture of CA and company personnel are immediately available.
- The disadvantages included insufficient space outside the farm for the trucks, to remove the hens from the cages is sometimes a problem due to rigor mortis after birds have been dead for several hours, the house may not be insufficiently air tight and that if CO₂ is pumped in too fast there is a quick drop in air temperature. Concentration of CO₂ should be at least 45% at bird level for at least 30 minutes and this should be measured with a gas

meter. For safety reasons, the waiting time before collection of the dead birds is four hours.

- The advantages are that catching of the birds is not necessary, there is a high capacity killing rate, easy cleaning and disinfection, it is not harmful to the equipment or building and it does not leave any residue in the building.

The CA indicated that CO gas is no longer in use. Although this method has some advantages such as good distribution in caged units and is highly effective in all species of poultry, for them the disadvantages outweigh the benefits, as the building should be 100% air tight, it is a dangerous gas which is both flammable and toxic, there is a risk to adjacent buildings, the presence of the fire brigade is necessary, and it is more expensive and difficult to use.

Electrocution with the aid of a mobile electrical water bath is the chosen method for ducks (aquatic birds in general) as they hold their breath in an atmosphere of CO₂ and are not as easily killed by this method. Depending on the design of water bath, the average speed is 2000-4000 birds/hour. The contracted company has its own instructions and guidelines and the VWA check the proper killing of the animals. The CA indicated that the disadvantages are the catching of the birds, the need to work outside farm buildings and the extra cleaning and disinfection.

Use of CO₂ gas in containers outside the building is used for small flocks, when the building can not be made air tight. There were three types of containers with different killing rates of up to 7500 chickens/hour. The bigger one is a continuous non stop belt with a cycle of 2-4 minutes. The disadvantages are the small capacity, the catching of live birds and to work outside the farms buildings. Advantages are that compared with other methods used it is more environmentally friendly and safer for people.

For back-yard flocks the chosen methods are lethal injection or CO₂ gas in a sealed container.

Methods for cattle

The chosen methods are

- A penetrating captive bolt, available from slaughterhouses, followed by a lethal injection or
- Sedation followed by a lethal injection.
- A free bullet in the case of animals which are difficult to restrain.
- For calves, electrical stunning tongs followed by a lethal injection.

Methods for pigs

The mobile electrocution units are CA owned and can be placed in the farm. Eight units are available for use on adult pigs and one for smaller pigs. The power supply on site should be 380V (50Hz), which can easily be found on most farms and each unit has an emergency power supply. The units operate with electrical parameters of 1000 volts and 125 Amps. Maintenance is done by a contracted company.

The CA explained how the system works, with pigs walking onto the unit until they reach the electrified chains and following electrocution a conveyor belt takes them out of the container for further processing on special lorries. The killing speed of each unit is, on average, 400 pigs per hour, and the limiting factor is how quickly the pigs enter the unit. The CA indicated that handling and restraining is the critical point for achieving a good throughput. Although the unit was not seen in action, the inspection team indicated to the CA that the arrangement with the electrified chains did not ensure that the electrodes spanned the brain as required by Directive 93/119/EC, Annex C, III (3). The CA undertook to clarify this issue.

Regarding the use of stunning tongs, which are not owned by the CA, followed by lethal injection, the CA indicated that electrical parameters are set by the company who owns them and no instructions or guidelines were available on this issue.

5.6. Killing of fur animals

The National legislation lays down that fur animals must be killed in accordance with Annex F of Directive 93/119/EC. However, the CA has not established any administrative measures, training or guidance to inspectors on this issue and no checks of how these requirements been respected on fur farms have been made.

5.7. Killing of fish

Dutch legislation does not prescribe specific requirements for the slaughter of fish. However, a Dutch research institute is carrying out a project on stunning of fish and prototype stunners have been built with the support of EU research institutions and the CA. The CA indicated that there is an increasing request for prior stunning of fish by supermarkets, food processors and consumers. In relation to the killing of eels, researchers indicated that apart from the animal welfare benefits, one of the advantages of stunning eels before killing in hypertonic solution is increased product quality. The equipment for stunning eels allows the fish to remain in the water tank and works in two phases: a peak stun in which there is an immediate loss of consciousness and a maintenance stun. According to EEG analysis, fish were stunned rather than immobilised.

6. CONCLUSIONS

6.1. Legislation

Dutch legislation on animal welfare at slaughter is more prescriptive on several points than the corresponding requirements of Directive 93/119/EC. This is beneficial to animal welfare with regard to electrical stunning of certain species and regarding aspects of ritual slaughter and clarifies aspects for inspection; however, the provisions for killing animals outside slaughterhouses, in particular the requirement for the presence of a veterinarian during the euthanasia of an animal on farm could delay the killing of an ill or injured animal, especially when the value of the animal makes a veterinary visit uneconomical.

6.2. Competent authority

- (1) The structure of the CA was generally adequate to ensure that the relevant legislation, guidelines, supervision and controls in the field

of animal welfare were efficiently prepared and performed with a clear attribution of responsibilities and flow of information.

- (2) The training to date has been insufficient to ensure that all OV's in slaughterhouses have received adequate training on animal welfare and this contributed to several deficiencies not being detected. Regarding preparedness for disease control, the CA has provided training based on theoretical and practical exercises which should ensure the competence of staff involved in culling animals.
- (3) A national project has been planned to establish a system of checks on the basis of risk to animal welfare, as required by Article 3 of Regulation (EC) No. 882/2004.
- (4) No plans have been made for internal audits to look systematically at animal welfare controls, contrary to Article 4 (6) of Regulation (EC) No. 882/2004.

6.3. Slaughterhouses

- (1) As a fully comprehensive recording and reporting system for the results of inspections has not yet been set up by the CCA, the results of animal welfare inspections in slaughterhouses cannot yet be evaluated and audited contrary to Regulation (EC) No 854/2004 Annex I, II and Regulation (EC) No 882/2004, Article 4 (4).
- (2) In response to a recommendation in report 9214/2003 further instructions to official veterinarians have resulted in daily checks covering most animal welfare requirements. However, documented procedures were not fully sufficient regarding aspects of handling immediately pre-stunning, maintenance of stunning equipment and stunning, in particular for the electrical stunning of ducks, contrary to Regulation (EC) N° 882/2004 Article 8. Equally the CA has not instructed official veterinarians to perform audits of the operator's own checks contrary to Regulation (EC) No 882/2004 Article 10 (2).
- (3) Although the CCA instructions generally covered the other issues seen during the mission, these instructions were not always followed, consequently no actions were taken when transport modules were not sufficiently high to allow birds to stand in their natural position, contrary to paragraph 34 (b), Chapter IV applying paragraph 2 (a), Chapter I of the Annex of Council Directive 91/628/EEC, and when lairage procedures caused unnecessary excitement, contrary to Article 3 of Directive 93/119/EC.
- (4) In addition to the routine checks of animal welfare in slaughterhouses, measures taken in relation to ritual slaughter have produced refinements to this process, in particular set bleeding times before further dressing procedures are carried out. However other refinements, which were additional to EU requirements, were not always implemented on the spot and the intended enhancements were not realised.

- (5) The CCA instruction and development of an enforcement strategy regarding events surrounding *Aid el Kebir* is a progressive and appropriate approach to deal with any problems which might arise, as required by Article 11 of Directive 93/119/EC.

6.4. Killing for disease control

- 1) The system set up should ensure that the killing of animals for disease control is done using methods compliant with Annex E of Directive 93/119/EC, as equipment and trained personnel are available and supervision of the killing is done by a trained veterinarian.
- 2) While animal welfare aspects have been a major consideration in selecting the most appropriate methods of culling, the electrocution of pigs does not fully meet EU requirements, as in mobile units the electrified chains do not necessarily span the brain, and where stunning tongs are used, the strength and duration of the current has not been determined by the CA, both of which are contrary to point 3 of chapter III of Annex C to Directive 93/119/EC.

6.5. Killing of fur animals

The methods listed to kill fur animals are the same as Annex F of Directive 93/119/EC; however, no system of controls has been set up to ensure that these requirements are respected.

6.6. Killing of fish

EU and Dutch legislation does not provide any specific requirements for fish when slaughtered; however, the CA has been involved in promoting the development of methods for stunning fish.

6.7. Overall conclusion

Several legislative measures and procedures impose a higher standard than the corresponding EU requirements; however, there are certain other EU provisions, including aspects relating to animal welfare both within and outside slaughterhouses, which are not dealt with comprehensively by documented procedures. The CCA are progressively addressing these gaps by developing training and procedures.

The CA has evaluated the different methods for the mass killing of animals, drawing on its extensive experience in dealing with previous outbreaks of epizootic disease and, with the exception of arrangements regarding electrical stunning, has chosen appropriate methods for each species. The CA has not established any measures to ensure that the EU requirements for killing fur animals are respected. The CA has, however, been pro-active in promoting humane killing of fish, which is not the subject of specific EU legislation.

7. CLOSING MEETING

A closing meeting was held on the 9th of June 2006 with representatives of the Central Competent Authority. At this meeting, the main findings and conclusions of the mission were presented by the inspection team. The inspection team also asked for further clarification on how it could be ensured that the mobile electrocution unit met the requirements for the electrodes to span the brain.

The representatives of The Dutch Ministry of Agriculture, Nature and Food Quality indicated that they will address the shortcomings identified by the inspection team.

8. RECOMMENDATIONS

8.1. To the competent authorities of the Netherlands

Within 25 working days of receipt of the translated report, the Competent Authorities are requested to present a plan of actions, including a timetable for their completion, to address the following recommendations.

The CCA should take measures to ensure that:

- 1) The requirement of national legislation for the presence of a veterinarian during the euthanasia of an animal on farm is reviewed in relation to the requirements of Article 3 of Directive 93/119/EC, where sick or injured animals shall be spared any avoidable pain or suffering.
- 2) Adequate training is provided to official veterinarians on the performance of controls at slaughter, as required by Article 6 of Regulation (EC) No 882/2004.
- 3) There are sufficient documented procedures to address all EU animal welfare requirements, as required by Regulation (EC) N° 882/2004 Article 8.
- 4) Arrangements are made for internal audits to look at animal welfare controls, in accordance with Article 4 (6) of Regulation (EC) No. 882/2004, in particular that sufficient recording and reporting of inspections takes place so that the CA can in turn evaluate and audit these controls, as required by Regulation (EC) No 854/2004 Annex I, II.
- 5) Official veterinarians recognise deficiencies in relation to the transport and lairaging of poultry, as required by Council Directive 91/628/EEC, Annex Chapter IV 34 (b) and Directive 93/119/EC Article 3, and take action as necessary.
- 6) Official veterinarians perform audits of the operators' own checks, as required by Regulation (EC) No 882/2004 Art 10 (2).
- 7) The strength of the current for stunning ducks is determined, as required by Directive 93/119/EC Annex C, point II, 3, B, 1.
- 8) Killing of pigs by electrocution in the event of a disease outbreak is performed so that the electrodes span the brain, as required by Directive 93/119/EC, Annex C, III (3).

- 9) A control system is put in place to ensure that fur animals are killed in accordance with the requirements of Annex F of Directive 93/119/EC.

9. COMPETENT AUTHORITY RESPONSE TO THE RECOMMENDATIONS

Once the report has been published, the competent authority response to the recommendations can be found at the following link:

http://ec.europa.eu/comm/food/fvo/ap/ap_the_netherlands_8041_2006.pdf