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FINAL REPORT OF AN AUDIT

CARRIED OUT IN

DENMARK

FROM 01 DECEMBER 2014 TO 12 DECEMBER 2014

IN ORDER TO

EVALUATE THE SYSTEM IN PLACE FOR OFFICIAL CONTROLS RELATED TO THE SAFETY OF FOOD OF ANIMAL ORIGIN, IN PARTICULAR MEAT AND MEAT PRODUCTS

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

The report describes the outcome of an audit carried out by the Food and Veterinary Office (FVO) in Denmark from 1 to 12 December 2014. The main objective of the audit was to evaluate official controls related to production and storage of food of animal origin and the follow-up action taken by the competent authorities (CAs) with regard to official controls related to the safety of food of animal origin, in particular meat and meat products.

The official control system in Denmark is generally capable of ensuring that European Union (EU) requirements are implemented. The procedures in place ensure that official controls are carried out regularly on the basis of risk assessment and shortcomings identified are followed up systematically. Regular supervision of officials and internal audits are in place to verify the performance of official controls.

Most of the recommendations from audit report DG(SANCO)2010-8484 have been addressed satisfactorily or are in the process of being addressed with recently introduced guidelines.

The FVO audit team identified the following weaknesses that undermine the robustness of some areas of the control system:

- *There was inadequate co-ordination between the Food Control Office (FCO) and the Meat Inspection Department (MID) in the establishments where there are shared responsibilities by both authorities. This was noted by the FVO audit team in small slaughterhouses with associated retail activities where there was an absence of satisfactory procedures to establish the areas for which each authority was responsible. Moreover, no clear procedures were in place to inform the other authority of the relevant deficiencies identified during the official controls. These gaps did not ensure effective official controls.*
- *The quality of supervision controls over Official Veterinarians (OVs) who perform their activities in small slaughterhouses needs to be strengthened in order to ensure that under-performances of official controls under their responsibility (i.e ante and post-mortem) are detected. As a consequence the FVO audit team noted that carcass hygiene issues in small slaughterhouses were undetected during post-mortem inspection.*
- *Insufficient emphasis in the evaluation of the food business operators' (FBO) procedures in place to prevent cross contamination in the framework of the evaluation of the hazard analysis and general HACCP based procedures. The lack of clarity of the 2012 Danish Veterinary Food Administration (DVFA) guideline of own checks regarding the requirement of FBO documented procedures to prevent cross contamination limits the audit tools available to the officials to evaluate this procedure. As a consequence the FVO audit team identified weaknesses in the hazard analysis and procedures in place to avoid cross contamination in several establishments including establishments producing ready to eat products.*
- *The generalised implementation by FBOs of sampling for the presence of Listeria monocytogenes after cleaning undermines the sensitivity of testing of processing areas and equipment. Further risk based official control sampling after positive official control samples is necessary to enhance the official controls.*

The last two bullet points are relevant in light of a recent Listeria monocytogenes food borne outbreak in Denmark and could have a significant impact on food safety. In addition, the official controls did not identify the inaction of FBOs when unsatisfactory carcass sample results were identified.

The implementation of the Food Chain Information (FCI) is not in line with the EU requirements and the Danish provisions as the FCI is not available for every consignment of animals sent for slaughter. Instead an electronically pre-signed FCI general declaration valid for a 14 day period is accepted for any consignment of animals sent for slaughter from a particular holding during this time. Therefore, the two recommendations in audit report DG(SANCO)/2010-8484 related to FCI have not been fully addressed.

The official controls performed by the CA over additives and smoke flavourings were overall satisfactory.

A number of recommendations have been made to the CA with a view to addressing the deficiencies identified during this audit.

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ABBREVIATIONS AND DEFINITIONS USED IN THIS REPORT

Abbreviation	Explanation
ABP	Animal By-Product
CA(s)	Competent Authority(ies)
CCA(s)	Central Competent Authority(ies)
CCP(s)	Critical Control Point(s)
DG(SANCO)	Health & Consumers Directorate General
DRMI	Danish Research Meat Institute
DVFA	The Danish Veterinary and Food Administration, *Fødevarestyrelsen*
EC	European Commission
EU	European Union
FBO(s)	Food Business Operator(s)
FCI	Food Chain Information
FCO	Food control Office
FVO	Food and Veterinary Office
HACCP	Hazard Analysis and Critical Control Points
Hygiene Package	Regulations (EC) No 852/2004, No 853/2004 and No 854/2004
MANCP	Multi-Annual National Control Plan
MID	Meat Inspection Department
OV(s)	Official Veterinarian(s)
SOP	Standard Operating Procedure
EURL Lm	European Union Reference Laboratory for *Listeria monocytogenes*

1. INTRODUCTION

The audit took place in Denmark from 1 to 12 December as part of the Food and Veterinary Office's (FVO) planned audit programme. The FVO audit team comprised two FVO auditors and one national expert.

The FVO audit team was accompanied throughout the audit by a representative from the Central Competent Authority (CCA), the The Danish Veterinary and Food Administration (DVFA, *Fødevarestyrelsen*) of the Ministry of Food, Agriculture and Fisheries (MFAF).

The opening meeting was held on 1 December 2014 with the CCA in Glostrup. At this meeting the FVO audit team confirmed the objectives of, and itinerary for the audit, and additional information required for the satisfactory completion of the audit was requested.

2. OBJECTIVES OF THE AUDIT

The main objective of the audit was to evaluate the official controls related to production and storage of food of animal origin and the follow-up action take by the competent authorities (CAs) in response to the relevant recommendations made in report DG(SANCO)/2010-8484 – MR Final (hereafter referred to as audit report 2010-8484) with regard to:

- CA organisation and operation;
- Official controls over food business operators' (FBOs') compliance with general and specific rules on the hygiene of food of animal origin.

In particular, controls over meat of domestic ungulates, farmed game, wild game, minced meat, meat preparations, mechanically separated meat and meat products in the framework of Regulations (EC) No 178/2002, No 852/2004, No 853/2004, No 854/2004 and No 882/2004 were subject to this evaluation.

In pursuit of these objectives, the audit itinerary included the following:

COMPETENT AUTHORITIES			Comments
Competent authorities	Central	1	
	Regional	6	Three Food Control Offices and three Meat Inspection Department regions
FOOD PRODUCTION / PROCESSING / DISTRIBUTION – ACTIVITIES			
Slaughterhouses		4	Two small slaughterhouses
Cutting premises		3	Associated to other activities
Minced meat / meat preparation establishments		2	Associated to other activities
Meat products establishments		3	
Game handling establishments		1	
Food stores		2	To check labelling of meat products (additives)

3. LEGAL BASIS FOR THE AUDIT

The audit was carried out under the general provisions of European Union (EU) legislation and, in particular Article 45 of Regulation (EC) No 882/2004 of the European

Parliament and of the Council on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

Full EU legal references are provided in Annex 1. Legal acts quoted in this report refer, where applicable, to the latest amended version.

4. BACKGROUND

The most recent audit concerning the safety of food of animal origin (mammals) in Denmark was carried out from 19 to 29 January 2010, the results of which are described in report DG(SANCO)/2010-8484– MR Final (hereafter referred to as audit report 2010-8484). In addition, relevant audit reports for the scope of this audit are DG(SANCO)/2011-6011 and DG(SANCO)/2013-6686 which relate to microbiological criteria and mechanically separated meat. These reports are accessible at:

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

The action plan in response to audit report 2010-8484 received from the Danish authorities provided satisfactory guarantees in response to all of the report's recommendations.

The current status of follow-up to recommendations made by the FVO can be found in the Country Profile for Denmark (see link to in point 5.1).

5. FINDINGS AND CONCLUSIONS

5.1. Competent Authorities

An overview of how control systems are organised in Denmark, based on information supplied by them, is provided in the Country Profile for Denmark and is available at the following link:

Document2http://ec.europa.eu/food/fvo/last5_en.cfm?co_id=DK

Audit findings

The Food Safety and the Meat Inspection Departments (MID) of the DVFA are in charge of the official controls within the scope of this audit.

The MID is responsible for official controls over 26 large slaughterhouses and their associated activities and 89 small slaughterhouses. The Food Safety Department's five Food Control Offices (FCOs) perform official controls over 248 establishments. In certain establishments such as small slaughterhouses with associated retail activities, the FCO and the MID have shared official control responsibilities.

The Chemistry and Food Quality Unit of the DVFA at central level has the overall responsibility of the official controls over additives and smoke flavourings including labelling. The controls in this area are implemented by the FCOs and the MID.

The frequency of ordinary controls is determined on a risk basis linked to the different food sectors. The FBOs with a good compliance history are classified as Elite and Elite 2. The FBOs under the scope of this audit fall under the very high risk category, which implies the following annual frequencies of official controls: standard (5), Elite (3) and Elite 2 (2). In the case of small establishments producing less than five tonnes per week

the normal inspection frequency is twice per year and for cold stores not performing wrapping activities it is three times per year. Supplementary to the ordinary controls, prioritised basic controls are planned. These are more flexible and target specific areas judged by the DVFA to need additional controls. The standard frequency of five controls with no reduction applies to all slaughterhouses. In all slaughterhouses the Official Veterinarian (OV) performs daily controls.

In addition to regular controls, targeted control campaigns are undertaken. During 2014 among other themes the control campaigns included handling and labelling of meat and *Listeria monocytogenes* in meat establishments.

Generally official controls are unannounced and involve one official. During the official controls the officials are required to follow the control manual and associated guidelines. A general control plan for the meat sector is available. This plan is further developed for each establishment. The control plan identifies the number of official controls envisaged for a specific year and the topics to be controlled during each visit according to the type of establishment. This is a dynamic process, which is updated to include follow-up inspections and reclassification of the risk status of the FBO if necessary. All control plan items must be covered in a three-year cycle. Nevertheless, the FVO audit team noted that in most of the establishments all control items in the control plan were covered annually.

Every year 50 % of all officials performing controls including OVs in small slaughterhouses must be supervised (quality supervision) by a team leader. The supervision is performed as a witness audit during inspection. In addition, regular verification of the documented official controls by the official's superior must take place. The OVs at slaughterhouses check the work of the auxiliaries on a daily basis. Besides this, a performance standard is carried out covering the overall performance of the staff. The frequency of this check is based on the number of slaughtered animals at the slaughterhouse. Supervision of ante- and post-mortem inspection activities performed by the OV in every small slaughterhouse must take place four times per year. In the small slaughterhouses the OVs performing routine controls such as ante- and post-mortem inspection are private veterinary practitioners which do not work full time for the CA.

During 2012 an internal audit on the control of small and medium size slaughterhouses took place. Internal audits during 2013 included animal by-products and lay-out and production, including approval of establishments, producing food of animal origin. Action plans to address the recommendations of the 2012 audit report have been drafted. The 2013 reports were in the process of being approved by the CA.

The FVO audit team noted that in all establishments visited the official controls were performed at the established frequencies, in accordance with a control plan developed in line with the procedures and, when deficiencies were noted, documented follow-up was available.

In the cases evaluated by the FVO audit team supervision of the staff was performed and documented at the required frequencies.

The FVO audit team noted that, contrary to Article 4 (3) of Regulation (EC) No 882/2004 in establishments with shared responsibility between the MID and the FCO, co-ordination was not efficient or effective. As a consequence it was unclear which areas of the establishment were under the responsibility of each CA. In addition, no documented procedure had been established to inform the other CA of any relevant findings. These weaknesses were evident in one small slaughterhouse with associated

activities under the control of the FCO where significant deficiencies, which could have an impact on public health, were noted (see section 5.4.1). The CA initiated actions to address the deficiencies. At the final meeting the CA presented a document outlining actions to be implemented by the MID and the FCO in order to address the co-ordination issues identified by the FVO audit team.

In the two small slaughterhouses visited, the available 2014 supervision reports over the OV official control activities were documented with no remarks. The FVO audit team noted that the implementation of the supervision procedures did not ensure the effectiveness of official controls which is a requirement of Article 4 (2a) of Regulation (EC) No 882/2004. The OV's documentation of the ante-mortem inspection was not satisfactory in one case and the post-mortem inspection was not satisfactory in both slaughterhouses (see point 5.4.6).

Conclusions

The DVFA with its MID and FCO branches is clearly designated as the CA to perform the official controls within the scope of this audit. Overall, the system is well designed and implemented.

In small slaughterhouses with associated activities where the MID and the FCO have shared official control responsibilities the co-ordination was not adequate. The absence of efficient and effective co-ordination to establish which areas the authorities are responsible for and to inform other authorities of any relevant deficiencies identified during the official controls, undermined the effectiveness of these controls. The CA initiated actions to address the above deficiencies.

The procedures in place ensure that official controls are carried out regularly on the basis of risk assessment and shortcomings identified are followed up systematically.

Regular supervision of officials and internal audits are in place to verify the performance of official controls. The supervision controls over OVs performing controls in small slaughterhouses need to be strengthened to ensure that under-performances in official controls under their responsibility (i.e. ante and post-mortem) are identified in order to ensure the effectiveness of controls.

5.2. Registration/approval of food business establishments

Legal requirements

Article 6 of Regulation (EC) No 852/2004, Article 4 of Regulation (EC) No 853/2004, Article 3 of Regulation (EC) No 854/2004 and Article 31 of Regulation (EC) No 882/2004.

Audit findings

Both the FCOs office and the MID receive approval applications screened by a common electronic system, evaluate documentation, perform approval inspections and issue approval numbers. The list of approved establishments is generated automatically.

All the establishments visited were approved for the activities in place. The approval documentation was generally satisfactory.

The FVO audit team noted the following issues:

- The published list of approved establishments was not always accurate (e.g. eight approved cold stores without approval number on the list published 26 November 2014). A 2014 internal audit report highlighted that 67 companies had not been issued with approval numbers, 18 had been granted numbers but the information was not recorded in the KOR system and 14 numbers were wrongly allocated. The CA presented the FVO audit team with a draft action plan in order to address these deficiencies. At the time of the final meeting the CA had addressed the deficiencies observed in the list of approved establishments.

- The official control procedures included regular verification of the approval of establishments. Nevertheless, in one establishment visited, the official control procedures did not ensure the withdrawal of approvals for activities without documented Hazard Analysis and Critical Control Points (HACCP) based procedures in place. This is contrary to Article 31 (e) of Regulation (EC) No 882/2004. The FBO stated that these activities had not been carried out for a long time.

- In one small slaughterhouse with associated retail activities under the control of the MID and the FCO, the approval documentation did not specify clearly the areas of the establishment covered by the approval (see section 5.1).

Conclusion

The approval procedures were generally satisfactory. However, some weaknesses were identified in relation to listing of approved establishments, documentation of approvals and the withdrawal of approvals for activities for which the FBO could not provide adequate guarantees for future production.

5.3. Official sampling and laboratory analysis

Legal requirements

Article 4 of Regulation (EC) No 854/2004 and Articles 4, 11 and 12 of Regulation (EC) No 882/2004.

Audit findings

The CA performs official sampling as part of the official controls. The overall official sampling budget covers approximately 48 000 samples from which 22 000 are microbiological samples. Every year the DVFA prioritises the number of samples between different type of products and establishments. During 2013 the official samples in establishments within the scope of the audit amounted to 14 000 samples. This number of samples was reduced by approximately 5 000 samples in 2014. Nevertheless due to a *Listeria monocytogenes* outbreak in 2014, a sampling campaign was carried out, testing almost 772 additional samples. The CA, mainly in US export approved establishments, performs official carcase sampling.

The FVO audit team noted that:

- There was a delay of three weeks in the initiation of official sampling after the match of a *Listeria monocytogenes* outbreak in the human population to a particular meat product establishment. In a review of the handling of the outbreak investigation the CA acknowledged that this delay was not justified.

- The CA identified a positive *Listeria monocytogenes* in a ready to eat meat product which resulted in a recall of the involved product. The CA follow up of this case did not include further official sampling of other products produced in the same establishment. The CA stated that this is not envisaged in the procedures in place. The Danish authorities, through genome-sequencing were able to link the positive official sample to a *Listeria monocytogenes* outbreak that resulted in 17 deaths.

Conclusions

The CA performs official sampling as part of the official controls.

Unsatisfactory delays acknowledged by the CA in a review document were noted regarding actions after the match between a food-borne outbreak and a meat product establishment.

Sampling of further products after positive official samples will strengthen the official control sampling strategy, making it more risk based and in line with Article 3 of Regulation (EC) No 882/2004.

5.4. Official controls over Food Business Operators' compliance with hygiene rules at establishment level

5.4.1. General and specific hygiene requirements

Legal requirements

Article 4 of Regulation (EC) No 852/2004, Article 3 of Regulation (EC) No 853/2004 and Article 4 of Regulation (EC) No 854/2004.

Audit findings

In the context of a political agreement to reduce the documentation burden on FBOs the CA does not require the FBOs to have a documented prerequisite programme. Nevertheless, pre-requisites are subject to official control and if non-compliances are identified, the CA may request that documented procedures are established. The pre-requisites that do not require documentation include cleaning, maintenance, pest control, training, personal hygiene and intake controls of incoming goods (only documented temperature controls need to be kept and storing temperature records). The CCA stated that documented procedures preventing cross contamination, traceability and product recall must be available.

In the establishments visited, the degree of availability of documented prerequisite programmes varied with larger businesses presenting generally more documentation.

In all the establishments visited the documented official controls reviewed by the FVO audit team identified non-compliances in relation to general and specific requirements and included follow up of the corrective actions taken by the FBO. However, the FVO audit team noted the following regarding compliance with the requirements of Annex II of Regulation (EC) No 852/2004 and Annex III to Regulation (EC) No 853/2004:

- In the three meat product establishments visited, the raw materials and personnel flows and operational hygiene procedures were not always documented and did not prevent cross-contamination of ready to eat products (see section 5.4.2).

- In one medium size meat product establishment visited, some maintenance issues such as damaged floors in the ready to eat products handling area were noted. The official present on the day of the audit identified most of these issues, which were not noted in the previous official controls.

- In one large meat product establishment visited, condensation over exposed final product was noted in several areas. The CA identified this issue and took immediate corrective action. Also actions to avoid cross-contamination related to issues identified by the FVO audit team were taken by the CA.

- In a pig slaughterhouse visited, the size of the rooms of some areas (for example the product handling and storage areas) was not sufficient to ensure a continuous flow of production and to avoid cross-contamination. Due to the lack of space, exposed products were stored in the same area as boxed products and close to timber pallets and damaged products. In addition, the cleaning of the trays was not adequate and condensation was noticed over carcasses. These issues had not been documented in the official controls. At the final meeting the CA presented a detailed set of measures taken, including timelines, in order to improve the deficiencies noted by the FVO audit tea.

- In the two large slaughterhouses visited, the operational hygiene procedures were largely satisfactory. However, in the bovine slaughterhouse the lack of appropriate apron washing facilities and the use of high pressure washing during operations with the possibility of cross contamination of product was noted. These issues were not documented in the official controls. In addition, two dirty cattle were slaughtered without any measures. This resulted in cross-contamination. The FBO took measures to deal with these contaminated carcasses.

- In one small slaughterhouse visited, some maintenance issues such as rust on carcass rails were noted. The slaughter hygiene of the lambs slaughtered during the FVO visit was adequate. However, the carcass hygiene of six bovine carcasses slaughtered the previous day was not adequate. All these carcasses presented faecal and rail dust contamination.

- In another small slaughterhouse visited, the carcass chill was overloaded and faecal contamination was noted in around 30% of the lamb carcasses and in several bovine carcasses. Exposed ready to eat products and fresh meat were storage in the same area with a risk of cross-contamination. The MID's OV stated that this area was not under her responsibility and she never visited it despite it being integrated in the carcass chill (see sections 5.1 and 5.2). One DVFA internal audit report (2012) identified shortcomings related to carcass contamination in line with the FVO audit findings.

- The CA and the representative from the butcher's association stated that, in most of the small slaughterhouses for cattle and small ruminants, it was standard practice, when performing the bleeding cut at the neck, to cut through the oesophagus and trachea. Annex III, section I, chapter IV, 7(a) to Regulation (EC) No 853/2004 only allows the cutting of the oesophagus and/or the trachea in the

case of slaughter according to a religious custom. This is not the case in all the small slaughterhouses. In the large bovine slaughterhouse visited and in one small slaughterhouse the slaughter was performed according to a religious custom (halal) and, in the other small slaughterhouse, the cut was performed according to the EU requirements.

Conclusions

The official controls are in principle capable of ensuring compliance with the general and specific hygiene requirements. Nevertheless, weaknesses in relation to official controls regarding the prevention of cross-contamination were noted (see also section 5.4.2) which could have a significant impact on food safety.

Slaughter hygiene was largely satisfactory in the large slaughterhouses visited with shortcomings noticed in the small slaughterhouses.

In the small slaughterhouses the bleeding cut was not always in line with the requirements.

5.4.2. HACCP-based systems

Legal requirements

Article 5 of Regulation (EC) No 852/2004 and Article 4 of Regulation (EC) No 854/2004).

Audit findings

In response to recommendation No 5 of audit report 2010-8484 the CA amended the relevant sections of the general inspection manual to ensure that an evaluation of the hazard analysis, HACCP plan and Critical control Points (CCPs) take place during official controls. Other actions taken include training of officials performing the controls and industry seminars.

The 2012 DVFA guideline on own checks in food establishments is available for both FBOs and officials performing official controls. This guideline includes HACCP based procedures. The control plan includes HACCP, elements of which must be evaluated during each visit. In addition, in US export approved establishments the officials must perform daily HACCP controls according to the US requirements.

In all the establishments visited, the HACCP based procedures were audited by the officials according to the procedures in place and documented accordingly.
In the slaughterhouses visited the FBOs implemented the HACCP based procedures with the application of industry's codes of practice. The two small slaughterhouses implemented the code of practice without any adaptation.

In one medium meat product establishment visited, the hazard analysis was inadequate and the flow diagram available was not accurate. In addition, multiple unrealistic CCPs were determined. The official demonstrating the official controls to the FVO audit team identified these issues which were not identified during the previous official controls performed by another official. In addition, in the other two meat product establishments the flow diagrams used to carry out the hazard analysis were not accurate.

The documentation available within the HACCP based procedures in relation to preventative measures in place to address identified cross contamination hazards was limited. The FVO audit team noted that the CA interpretation of the requirement of having a documented procedure to ensure the prevention of cross-contamination (see chapter 5.4.1) was not in line with the 2012 DVFA guideline of own check controls. According to the officials the guideline was ambiguous and it could be understood that only oral procedures will suffice to prevent cross contamination. The CCA agreed and stated that during the first half of 2015 the guideline will be amended to avoid this misinterpretation. Regarding the hazard analysis and associated preventative measures to avoid cross-contamination in establishments producing ready to eat meat products, the FVO audit team noted the following in relation to Article 5 of Regulation (EC) 852/2004 requirements:

- In one establishment visited, the design of the establishment did not allow for separate flows of ready to eat and raw products. The documented procedures available did not cover sufficiently the personnel and product flows and separation in time of production in order to avoid cross contamination. The CA stated that the official controls in relation to this procedure consisted of interviews with the FBO.

- In the large establishment visited, limited documented procedures were available describing flows of personnel in order to avoid cross contamination between the high and low risk areas. The FVO audit team noted that the implementation of the procedures did not prevent the possibility of cross-contamination. This issue had not been noted and documented by the CA.

- In another establishment visited, after an official positive *Listeria monocytogenes* sample, the official noted that the flow of ready to eat products was not adequate to avoid cross-contamination. At the time of the FVO audit team's visit, no production of ready to eat products took place but the available documentation regarding flows and procedures to avoid cross contamination of ready to eat products was unsatisfactory.

In one small slaughterhouse the official controls did not identify that the monitoring of one CCP was not performed by the FBO as required by Article 5 (2d) of Regulation (EC) No 852/2004. This official was in charge of 29 small slaughterhouses that mainly implemented the same CCP.

Conclusions

The official controls over HACCP based procedures were in principle satisfactory. However, the controls did not always identify that the flow diagrams used for the hazard analysis were not accurate. In addition, the misinterpretation by the CA of the 2012 DVFA guideline of own check controls resulted in the lack or the limited FBO documentation of preventative measures in place to avoid cross contamination. This weakens the audit tools available to the officials evaluating HACCP based procedures. Moreover, as a consequence insufficient measures related to preventative measures to control cross contamination of ready to eat products were noted in several establishments. This could have a significant impact on food safety.

The official controls over HACCP based procedures in one small slaughterhouse failed to identify the lack of monitoring of one CCP.

Recommendation No 5 of audit report 2010-8484 has not been fully addressed.

5.4.3. Microbiological criteria for foodstuffs

Legal requirements

Article 4 of Regulation (EC) No 854/2004.

Regulation (EC) No 2073/2005 lays down EU rules with regard to microbiological criteria for foodstuffs.

Audit findings

In response to recommendation No 1 of audit report 2010-8484 the CA updated the national guideline to Regulation (EC) No 2073/2005. This update of the national guideline that also intends to address recommendations No 1, 2, 4, 7 and 8 of audit report 2011-6011, was introduced on 28 November 2014. Therefore, the FVO audit team could not assess the implementation of the changes introduced in the guideline.

The CA stated that the Danish Research Meat Institute (DRMI) had evaluated the use of alternative micro-organisms and testing frequencies for carcass process hygiene criteria. Also according to the CA the sampling frequencies for small establishments had been established based on risk analysis and analysing the frequencies established in other Member States.

The microbiological criteria have to be subject of official controls and documented in accordance with the control plan and associated guidelines. In the establishments visited the controls over compliance with the requirements of Regulation (EC) No 2073/2005 were documented satisfactorily.

In the establishments visited the FVO audit team noted the following:

- In the meat product establishments, processing areas and equipment were sampled for the presence of *Listeria monocytogenes* after cleaning. The EURL Lm guidelines on sampling the food processing area and equipment for the detection of *Listeria monocytogenes* establish that, in order to increase the probability of detecting persistent strains, sampling should be done during or at the end of production. Moreover, in the large meat product establishment visited positive *Listeria monocytogenes* samples in areas coming in contact with ready to eat product were documented after cleaning. In one case evaluated the corrective action taken was delayed by 11 days. The CA did not note these issues. Not all officials were aware that *Listeria monocytogenes* testing in food processing areas and equipment should be done during production. The DVFA guideline states that sampling should be done during production and/or after cleaning. Moreover, the documentation available on the investigation of the source of a *Listeria monocytogenes* foodborne outbreak in a meat product establishment, also pointed out that sampling for *Listeria monocytogenes* in the food processing area and equipment was done after cleaning.

- In the large meat product establishment the CA had noted that the sampling size of ready to eat products was not in line with the requirements and the situation had been corrected by the time of the FVO audit team's visit. The FBO used mathematical predictive modelling and scientific literature to validate the process;

and shelf life studies performed under the foreseeable conditions of distribution, storage and use were also available. This was not the case in the medium meat product establishment where the FBO could not prove that the shelf-life studies of product posing a risk for *Listeria monocytogenes* were performed under these conditions as required by Article 5 of Regulation (EC) No 2073/2005. In this establishment the sampling plan of the ready to eat products was not established in the context of the procedures based on HACCP principles. The CA identified this last issue.

- The DMRI has carried out a validation study of the testing of *E. coli* instead of *Enterobacteriaceae* and sampling the carcasses after chilling for the presence of total aerobes and *E. coli* with a frequency of 1 sample every 1000. The DMRI had also established limits for unsatisfactory and marginal results. In the pig slaughterhouse where this sampling plan was performed, the internal procedures, in accordance with Regulation (EC) No 2073/2005, required corrective actions when unsatisfactory results were obtained (above M). Nevertheless, on several occasions the FBO did not carry out any corrective actions when necessary as required by Article 7 of Regulation (EC) No 2073/2005. This was not identified by the CA.

- In the large slaughterhouses the sampling plan included the daily sampling of five carcasses after chilling for the presence of *Salmonella*. The five samples were pooled. The CA presented a documented procedure with this alternative procedure for testing *Salmonella* and for the establishment of corrective actions.

- In the bovine slaughterhouse the samples taken for the aerobic colony count and *E. coli* were not selected at random as required by Chapter 3(2) of Annex I to Regulation (EC) No 2073/2005. The FBO stated that this was due to the restrictive collection times by the laboratory.

- The code of practice from the butchers' associations, which is in line with the newly introduced CA guidelines for the implementation of Regulation (EC) No 2073/2005, establishes reduced carcass sampling frequencies according to the production and details the methods and limits to use in small slaughterhouses. In the small slaughterhouses visited, sampling was performed in accordance with the code of practice. In one small slaughterhouse the official controls did not identify that no corrective action took place after the carcass testing results were unsatisfactory.

- In one meat product plan producing minced meat, unsatisfactory process hygiene criteria results were noted over an extended period of six months. The FBO stated that the cleaning contractor had been changed in order to address the problem. In addition, the sample size for the determination of the presence of *Salmonella* in minced meat intended to be eaten raw was 10 grams instead of 25 as required by Regulation (EC) No 2073/2005. This was not detected by past official controls and the CA identified it during the FVO visit. The *Salmonella* sample was pooled. The CA allowed the pooling only of 10 gram samples even if the sensitivity was decreased.

Conclusions

The official controls over the requirements of Regulation (EC) No 2073/2005 do not ensure compliance with certain areas of the requirements. The CA failed to identify that FBOs did not take corrective actions after unsatisfactory process hygiene results.

Sampling for the presence of *Listeria monocytogenes* after cleaning undermines the possibility of detecting the contamination by this pathogen of processing areas and equipment.

Recommendation No 1 of audit report 2010-8484 had been addressed with the introduction of the national guideline to Regulation (EC) No 2073/2005, in addition, in principle, this guideline addresses recommendations number 1, 2, 4, 7 and 8 of audit report 2011-6011. Nevertheless, as the guideline was just introduced before the FVO audit the FVO audit team could not evaluate its implementation.

5.4.4. Traceability, labelling and identification marking

Legal requirements

Article 18 of Regulation (EC) No 178/2002, Article 5 of Regulation (EC) No 853/2004, Article 3 of Directive 2000/13/EC and Article 4 of Regulation (EC) No 854/2004.

Regulation (EU) 931/2011 lays down provisions implementing the traceability requirements of Regulation (EC) No 178/2002 to FBOs in respect of food of animal origin.

Regulations (EC) No 1760/2000 and 1825/2000 set out specific labelling requirements for beef meat.

Audit findings

Traceability, labelling and identity marks are the subject of official controls. Specific inspection campaigns regarding labelling of meat had taken place in 2013 and 2014.

The FVO audit team performed several successful traceability exercises. The FVO audit team did not note deficiencies regarding compliance with traceability and identification mark requirements. In one meat product establishment visited, the FBO did not inform the consumer on the label of the need for thorough cooking prior to consumption of a meat product requiring cooking as required by Article 6 of Regulation (EC) No 2073/2005. The CA identified this non-compliance during the FVO audit.

Conclusion

The official controls over the compliance with the requirements of traceability, labelling and identity marks were satisfactory.

5.4.5. Food Chain Information (FCI)

Legal requirements

Article 3 of Regulation (EC) No 853/2004 and Article 5 of Regulation (EC) No 854/2004.

Audit findings

In response to recommendations No 3 and No 4 of audit report 2010-8484 regarding FCI the CA introduced Guideline No 9503 of 19/09/2013 that includes the requirements to provide FCI for every consignment of animals sent for slaughter, to document FBO's FCI checks and to check randomly FCI as part of the ante-mortem inspection and other official controls.

FCI for pigs and cattle was mostly provided electronically. FCI for small ruminants was mainly in paper format and for horses; the FCI was in paper format only.

A general electronic FCI is signed by the farmer in the Central House Animal Register (CHR) that interfaces with different IT systems used by the FBOs. When the FBO cross checks one consignment of animals sent to the slaughterhouse the system informs (yes/no) if the holding representative has issued the FCI electronically. However, the holding representatives did not issue FCI for every consignment of animals sent for slaughter. In fact a general electronic FCI will cover any consignment sent for slaughter from a particular holding in the 14 days subsequent to the electronic signature. This is not in line with the requirements of Section III of Annex II to Regulation (EC) No 853/2004 and with the Danish guideline 9503 of 19/09/2013.

In the slaughterhouses visited, the FBO verified that the animals were accompanied by the relevant paper FCI or that the electronic system provided a "yes" under the FCI heading. The OVs verified FCI as part of the official controls.

Conclusion

The procedures outlined by the Danish Guideline No 9053 of 19/09/2013 were not followed, as each consignment of animals sent for slaughter was not accompanied by FCI. Instead, an electronically pre-signed FCI general declaration was used for any consignment of animals sent for slaughter from a particular holding during a 14 day period. Recommendations No 3 and No 4 of audit report 2010-8484 have not been fully addressed.

5.4.6. Ante-mortem and post-mortem inspection

Legal requirements

Article 5 of Regulation (EC) No 854/2004.

Specific rules on official controls for *Trichinella* in meat are laid down in Regulation (EC) No 2075/2005.

Audit findings

In response to recommendation No 6 of audit report 2010-8484 the CA updated the existing procedures to ensure that the FBO has appropriate procedures in place to ensure that no part of the carcases examined for *Trichinella* leaves the establishment until a negative laboratory result has been received. In the pig slaughterhouse and the game handling establishment (GHE) visited, appropriate procedures in accordance with the provisions were in place to ensure that pig and wild boar carcasses only were released for cutting after negative *Trichinella* results were available. Official controls were performed

over the test results available. Both establishments used an external accredited laboratory for the performance of *Trichinella* testing.

Ante-mortem and post-mortem inspection were performed largely in line with the EU requirements and documented in the four slaughterhouses visited by the FVO audit team. However, the FVO audit team noted the following:

- In a large pig slaughterhouse visited, the number of animals recorded at ante-mortem inspection was sometimes less than the number of animals slaughtered.

- In a small slaughterhouse visited, and contrary to the procedures in place, the OV did not record the individual identification of the animals evaluated during the ante-mortem inspection. Moreover, the OV stated that he did not verify any identity of the animals certified fit for slaughter.

- Carcasses with faecal contamination and rail dust were declared fit for human consumption after post-mortem inspection in the two small slaughterhouses visited.

- In one large bovine slaughterhouse, the penis was not inspected. In the GHE visited, carcasses with remaining parasitic lesions were declared fit for human consumption after post-mortem inspection. The CA stated that actions had been taken to address these issues.

Conclusions

Trichinella testing was performed in line with the EU requirements and the official controls over this area were satisfactory. Therefore, Recommendation No 6 of audit report 2010-8484 has been addressed.

Ante and post-mortem inspection was generally satisfactory. However, weaknesses were observed mainly in the performance of these activities by OVs in small slaughterhouses.

5.4.7. Health marking

Legal requirements

Article 5 of Regulation (EC) No 854/2004.

Audit findings

Health marking was applied after carcasses were declared fit for human consumption. In the two large slaughterhouses visited it was applied satisfactorily. In the two small slaughterhouses visited the health mark was applied to contaminated carcasses (see point 5.4.6) and in one of them it was illegible. The CA started immediately to take measures to correct this issue.

Conclusion

The health mark was applied in accordance with the requirements of the Regulation in large slaughterhouses while in small slaughterhouses the application of the health mark was unsatisfactory.

5.4.8. Animal welfare at the time of slaughter or killing

Legal requirements

Article 5 of Regulation (EC) No 854/2004.

Regulation (EC) No 1099/2009 sets out EU rules with regard to the protection of animals at the time of slaughter or killing.

Audit findings

The DG(SANCO)2014-7061 audit report in order to evaluate the animal welfare controls in place at the time of slaughter and during related operations issues specific recommendations for the CA in order to address the deficiencies noted in this area. The report concludes "*that the official control systems in place have not fully shifted yet into assessing the business operators' own control systems for compliance with Regulation (EC) No 1009/2009 requirements. This, together with insufficient awareness of all the requirements from that Regulation from business operators and from competent authorities, has resulted in a few gaps in the business operators own controls which go undetected by the CAs. Nevertheless good animal welfare at the time of slaughter was generally in place*."

In the small slaughterhouses visited, the animal welfare controls at the time of slaughter were routinely performed by the OVs in a three-month cycle with a further annual audit performed by the supervisory OV. In the larger slaughterhouses visited, with the permanent presence of the CA, the OV performs controls at the same frequency in accordance with recently introduced procedures. In addition, the FVO audit team noted that further controls were performed by the OVs. In one pig slaughterhouse in a recent animal welfare control performed by the OV the official stated that pigs were provided with bedding after 12 hours in the lairage. The FVO audit team noted that this was not the procedure implemented by the FBO and bedding was only provided when the pigs stayed over the weekend. Nevertheless, the FVO audit team agreed with the rest of the animal welfare assessment carried out by the official.

The FVO audit team noted that good animal welfare at the time of slaughter was generally in place. Spare stunning equipment was readily available in all slaughterhouses visited. In one small and one large slaughterhouse visited, stunning was systematically applied before halal slaughter in accordance with the Danish requirements.

Conclusion

Animal welfare at the time of slaughter was largely satisfactory.

5.4.9. Documentation of official controls

Legal requirements

Article 9 of Regulation (EC) No 882/2004.

Audit findings

Annex 11B of the control manual establishes guidelines for the documentation of the official controls.

The officials must record the outcome of the official controls in the "DIKO" electronic tool. The documentation of the approval process is recorded in the KOR system. All the documentation including correspondence and control plans is kept in the work-zone. The outcome of the controls at the sector evaluated is classified according a numeric scale. The control reports for establishments supervised by the Food Safety Department and a summary of the official control reports at slaughterhouses and associated activities carried out by the MID are publicly available on the DVFA website.

The FVO audit team noted that the reports were generally detailed and informative of the situation assessed and contained the follow up of actions taken by FBOs after non-compliances had been identified by the officials. Some minor weaknesses were detected in the documentation of ante-mortem inspection in a small slaughterhouse and post-mortem inspection in a large slaughterhouse.

The slaughterhouse's control plan does not include an individual heading for the evaluation of the FCI. In two slaughterhouses visited, the OVs stated that FCI was evaluated under other control items. In both cases the documentation available did not prove that the FCI was evaluated. In one small slaughterhouse visited, where the FCI official controls were documented by the OV the FVO audit team noted that the OV had modified the standard control plan to include the FCI as a separate control item[1].

Conclusion

The documentation of official controls was overall satisfactory.

5.4.10. Animal by-products

Legal requirements

Article 5 of Regulation (EC) No 854/2004 and Article 45 of Regulation (EC) No 1069/2009.

Regulation (EU No 142/2011 lays down the implementing measures for the public and animal health rules for animal by- products and derived products laid down in Regulation (EC) No 1069/2009.

Audit findings

The official controls regarding animal by-products were performed as part of the control plan. In the establishments visited animal by-products were segregated according to the EU requirements.

In one small slaughterhouse the Category 1 animal by-products were not dyed satisfactorily.

[1] In their response to the draft audit report the CA stated that the evaluation of the FCI is part of the heading “presentation of animals for ante-mortem inspection”.

Conclusion

Official controls over animal by-products were generally satisfactory.

5.5. Controls over the use of food additives

Legal requirements

The legal requirements concerning the use food additives and the relevant controls are laid down in Regulations (EC) No 2065/2003, No 1333/2008, No 1334/2008, No 231/2012, No 872/2012, and No 1321/2013.

Audit findings

The control of food additives and smoke flavourings is integrated in the overall DVFA official control system and includes the control of FBO's own checks in these areas.

In addition to the above controls the CA carries out yearly campaigns and laboratory projects. For example in 2012, nine laboratory projects concerning food additives took place including the analysis of approximately 1 000 samples, for example one project concerning purity criteria for additives and compound additives (around 50 samples) and one project concerning flavourings (around 75 samples). Also a campaign took place concerning the use and labelling of additives, in which 208 samples were taken for analysis for additives, and a campaign concerning the use and labelling of flavourings was conducted through documentary checks. In 2014 an official control campaign was launched for the use of nitrites in brine cured meat products.

Laboratory projects including the analysis of nitrite/nitrate in meat products take place annually.

The CA classifies the manufactures of additives and smoke flavourings under the heading "flavours, food additives, cultures and enzymes" with a standard frequency of three yearly official controls which can be reduced to one according to the FBO compliance history.

According to the information provided by the Danish CA the level of non-compliances identified in the additives and smoke flavourings area are low and mainly related to the lack of documentation accompanying nitrite. High degrees of compliance were noted by the CA in the analytical controls performed for the use of nitrites and nitrates with some non-compliance identified at labelling. Also high levels of compliance had been reported by the official controls of FBO manufacturing food additives and smoke flavourings with the official controls focussing in the documentation of purity criteria in additive specifications and labelling, data-sheets and maximum levels of contaminants in the production of smoke flavourings.

Food additives are included in the CA training programme for food inspectors on meat products and meat preparations. Chapter 11.8 of the official control manual deals with the official control of additives and provides links with information regarding the flavourings. On the CA’s website there are guidelines regarding food additives, smoke flavourings and specifications on additives.

A national derogation for the use of nitrite in meat products in accordance with Commission Decision 2010/561/EU is in place in Denmark. The derogation includes heat-treated and non-heat treated meat products as well as traditional products like

Wiltshire bacon and ham, salt cured ham ("spegeskinke") and similar traditional products. The permitted levels of nitrite for some meat products in Denmark are lower than the allowed levels specified in the EU requirements with an allowed ingoing amount of 60 mg/kg.

The FVO audit team witnessed the auditing of smoke flavourings use and labelling in one establishment and the auditing of the use and labelling of additives including nitrites in two establishments. The CA verified the recipes used by the FBO and performed calculations of the amounts used to ensure compliance with the Danish and EU requirements. The FVO audit team noted that training on this issue was provided to the officials and back up from designated specialists was available. During the controls the officials used the relevant legislation and the Commission on-line additive database. The performance of the officials was satisfactory. Nevertheless, the CA did not identify in one case that the technical information available for a smoke flavouring derived from a primary product approved by Regulation (EU) 1321/2013 did not include the quantitative relationship between the primary product and the derivative concentrations as required by Article 13 of Regulation (EC) No 2065/2003.

The FVO audit team selected 14 meat products and meat preparations in the establishments and at two retailers visited. All the declared additives were authorised to be used in the products evaluated.

Conclusion

The official controls performed by the CA over additives and smoke flavourings were of a high standard.

6. OVERALL CONCLUSION

The official control system in Denmark is generally capable of ensuring that EU requirements are implemented. The procedures in place ensure that official controls are carried out regularly on the basis of risk assessment and shortcomings identified are followed up systematically. Regular supervision of officials and internal audits are in place to verify the performance of official controls.

Most of the recommendations from audit report DG(SANCO)2010-8484 have been addressed satisfactorily or are in the process of being addressed with recently introduced guidelines.

The FVO audit team identified the following weaknesses that undermine the robustness of some areas of the control system:

- There was inadequate co-ordination between the FCO and the MID in the establishments with shared responsibilities by both authorities.
- The quality of supervision controls over OVs who perform their activities only in small slaughterhouses needs to be strengthened in order to ensure that under-performances of official controls under their responsibility (i.e ante and post-mortem) are detected.

- Insufficient emphasis in the evaluation of the FBOs' procedures in place to prevent cross contamination in the framework of the evaluation of the hazard analysis and general HACCP based procedures. The lack of clarity of the 2012 DVFA guideline of own checks regarding the requirement of FBO documented

procedures to prevent cross contamination limits the audit tools available to the officials to evaluate this procedure. As a consequence the FVO audit team identified weaknesses in the hazard analysis and procedures in place to avoid cross-contamination in several establishments including establishments producing ready to eat products.

- The generalised implementation by FBOs of sampling for the presence of *Listeria monocytogenes* after cleaning undermines the sensitivity of testing of processing areas and equipment. Further risk based official control sampling after positive official control samples is necessary to enhance the official controls.

The last two bullet points are relevant in the light of a recent *Listeria monocytogenes* food borne outbreak in Denmark and could have significant impact in food safety. In addition, the official controls did not identify the inaction of FBOs when unsatisfactory carcase sample results were identified.

The implementation of the FCI is not in line with the EU requirements and the Danish provisions as the FCI is not available for every consignment of animals sent for slaughter.

The official controls performed by the CA over additives and smoke flavourings were overall satisfactory.

A number of recommendations have been made to the CA with a view to addressing the deficiencies identified during this audit.

7. CLOSING MEETING

A closing meeting was held on 12 December with the CCA, the DVFA. At this meeting the FVO audit team presented the findings and preliminary conclusions of the audit and advised the CCA of the relevant time limits for production of the report and their response.

The representatives of the CCA acknowledged the findings and conclusions presented by the FVO audit team. In addition, information on action already taken and planned in order to address particular findings in the establishments visited was provided.

8. RECOMMENDATIONS

An action plan describing the action taken or planned in response to the recommendations of this report and setting out a time table to correct the deficiencies found should be presented to the Commission within 25 working days of receipt of the report.

No.	Recommendation
1	To enhance the supervision of the Official Veterinarians' official control activities in small slaughterhouses to ensure that they are effective in line with the requirements of Article 4 of Regulation (EC) No 882/2004.

2	To ensure that the official microbiological control sampling is performed according to risk in line with Article 3 of Regulation (EC) No 882/2004.
3	To ensure that the bleeding cut is in line with Annex III, section I, chapter IV, 7(a) to Regulation (EC) No 853/2004 in all slaughterhouses.
4	To ensure that food business operators' prevention measures for cross-contamination hazards are adequate and that appropriate documents and records in line with Article 5 2 (g) of Regulation (EC) No 852/2004 are kept to demonstrate the effective application of the Hazard Analysis and Critical Control Point principles.
5	To improve official controls over the requirements of Regulation (EC) No 2073/2005 in order to ensure compliance in relation to actions taken by food business operators in relation of unsatisfactory results regarding process hygiene criteria.
6	To follow, during the official controls, the EURL Lm guidelines on sampling the food processing area and equipment for the detection of *Listeria monocytogenes.*
7	To ensure that Food Chain Information is available for every consignment of animals sent for slaughter as required by Section III of Annex II to Regulation (EC) No 853/2004.

ANNEX 1 – LEGAL REFERENCES

Legal Reference	Official Journal	Title
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. 1825/2000	OJ L 216, 26.8.2000, p. 8-12	Commission Regulation (EC) No 1825/2000 of 25 August 2000 laying down detailed rules for the application of Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards the labelling of beef and beef products
Reg. 178/2002	OJ L 31, 1.2.2002, p. 1-24	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety
Reg. 2065/2003	OJ L 309, 26/11/2003, p. 1-8	Regulation (EC) No 2065/2003 of the European Parliament and of the Council of 10 November 2003 on smoke flavourings used or intended for use in or on foods
Reg. 852/2004	OJ L 139, 30.4.2004, p. 1, Corrected and re-published in OJ L 226, 25.6.2004, p. 3	Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs
Reg. 853/2004	OJ L 139, 30.4.2004, p. 55, Corrected and re-published in OJ L 226, 25.6.2004, p. 22	Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin
Reg. 854/2004	OJ L 139, 30.4.2004, p. 206, Corrected and re-published in OJ L 226, 25.6.2004, p. 83	Regulation (EC) No 854/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for the organisation of official controls on products of animal origin intended for human consumption

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
Reg. 2073/2005	OJ L 338, 22.12.2005, p. 1-26	Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs
Reg. 2074/2005	OJ L 338, 22.12.2005, p. 27-59	Commission Regulation (EC) No 2074/2005 of 5 December 2005 laying down implementing measures for certain products under Regulation (EC) No 853/2004 of the European Parliament and of the Council and for the organisation of official controls under Regulation (EC) No 854/2004 of the European Parliament and of the Council and Regulation (EC) No 882/2004 of the European Parliament and of the Council, derogating from Regulation (EC) No 852/2004 of the European Parliament and of the Council and amending Regulations (EC) No 853/2004 and (EC) No 854/2004
Reg. 2075/2005	OJ L 338, 22.12.2005, p. 60-82	Commission Regulation (EC) No 2075/2005 of 5 December 2005 laying down specific rules on official controls for Trichinella in meat
Reg. 1333/2008	OJ L 354, 31.12.2008, p. 16-33	Regulation (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives
Reg. 1334/2008	OJ L 354, 31.12.2008, p. 34-50	Regulation (EC) No 1334/2008 of the European Parliament and of the Council of 16 December 2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods and amending Council Regulation (EEC) No 1601/91, Regulations (EC) No 2232/96 and (EC) No 110/2008 and Directive 2000/13/EC

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)
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
Reg. 931/2011	OJ L 242, 20.9.2011, p. 2-3	Commission Implementing Regulation (EU) No 931/2011 of 19 September 2011 on the traceability requirements set by Regulation (EC) No 178/2002 of the European Parliament and of the Council for food of animal origin
Reg. 142/2011	OJ L 54, 26.2.2011, p. 1-254	Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive
Reg. 231/2012	OJ L 83, 22.3.2012, p. 1-295	Commission Regulation (EU) No 231/2012 of 9 March 2012 laying down specifications for food additives listed in Annexes II and III to Regulation (EC) No 1333/2008 of the European Parliament and of the Council
Reg. 872/2012	OJ L 267, 2.10.2012, p. 1-161	Commission Implementing Regulation (EU) No 872/2012 of 1 October 2012 adopting the list of flavouring substances provided for by Regulation (EC) No 2232/96 of the European Parliament and of the Council, introducing it in Annex I to Regulation (EC) No 1334/2008 of the European Parliament and of the Council and repealing Commission Regulation (EC) No 1565/2000 and Commission Decision 1999/217/EC

Reg. 101/2013	OJ L 34, 5.2.2013, p. 1-3	Commission Regulation (EU) No 101/2013 of 4 February 2013 concerning the use of lactic acid to reduce microbiological surface contamination on bovine carcases
Reg. 1079/2013	OJ L 292, 1.11.2013, p. 10-12	Commission Regulation (EU) No 1079/2013 of 31 October 2013 laying down transitional measures for the application of Regulations (EC) No 853/2004 and (EC) No 854/2004 of the European Parliament and of the Council
Reg. 1321/2013	OJ L 333, 12/12/2013, p. 54-67	Commission Implementing Regulation (EU) No 1321/2013 of 10 December 2013 establishing the Union list of authorised smoke flavouring primary products for use as such in or on foods and/or for the production of derived smoke flavourings
Dir. 96/93/EC	OJ L 13, 16.1.1997, p. 28-30	Council Directive 96/93/EC of 17 December 1996 on the certification of animals and animal products
Dir. 98/83/EC	OJ L 330, 5.12.1998, p. 32-54	Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption
Dir. 2000/13/EC	OJ L 109, 6.5.2000, p. 29-42	Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs