USDA

United States Department of Agriculture

Food Safety and
Inspection Service

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FEB 19 2019

Jón Gíslason, Director General
Icelandic Food and Veterinary Authority, MAST
Austurvegur 64
800 Selfoss, Iceland

Dear Jón Gíslason,

The FSIS onsite audit conducted from September 17 through September 21, 2018, supports that Iceland's inspection system continues to remain equivalent to that of the United States. Enclosed is a copy of the final audit report. The comments received from the Government of Iceland are included as an attachment to the report.

Sincerely,

Michelle Catlin, PhD
International Coordination Executive
Office of International Coordination

Enclosure

FINAL REPORT OF AN AUDIT CONDUCTED IN

ICELAND

SEPTEMBER 17-21, 2018

EVALUATING THE FOOD SAFETY SYSTEMS GOVERNING

RAW LAMB, GOAT AND MUTTON PRODUCTS

EXPORTED TO THE UNITED STATES OF AMERICA

February 15, 2019

Food Safety and Inspection Service
United States Department of Agriculture

Executive Summary

This report describes the outcome of an on-site equivalence verification audit conducted by the United States Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) from September 17-21, 2018. The purpose of the audit was to determine whether Iceland's food safety inspection system governing raw lamb products remains equivalent to that of the United States, with the ability to export products that are safe, wholesome, unadulterated, and correctly labeled and packaged. Iceland currently exports raw intact lamb to the United States.

The audit focused on six system equivalence components: (1) Government Oversight (e.g., Organization and Administration); (2) Government Statutory Authority and Food Safety and Other Consumer Protection Regulations (e.g., Inspection System Operation, Product Standards and Labeling, and Humane Handling); (3) Government Sanitation; (4) Government Hazard Analysis and Critical Control Points (HACCP) System; (5) Government Chemical Residue Testing Programs; and (6) Government Microbiological Testing Programs.

An analysis of the findings within each component did not identify any deficiencies that represented an immediate threat to public health. The FSIS auditors identified the following findings:

Government Oversight (e.g., Organization and Administration)

- The Central Competent Authority (CCA) allows government inspection personnel to issue an export certificate for product intended for export to the United States before test results are known for samples taken in the CCA's chemical residue program.

Government Statutory Authority and Food Safety and Other Consumer Protection Regulations (e.g., Inspection System Operation, Product Standards and Labeling, and Humane Handling)

- The CCA provides inadequate oversight of government in-plant inspection personnel (IIP) at establishments that are certified to export to the United States. The FSIS auditors identified the following:
    - In one of two audited establishments, the IIP were not conducting pre-operational sanitation verification activities in the fabrication and packaging room.
    - In one of two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring.
    - In one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on the official inspection *Daily Control in Slaughterhouses* form, as required by the CCA guidelines.

Government Microbiological Testing Programs

- The CCA provides inadequate oversight of Iceland's government laboratory. The laboratory did not follow procedures for monitoring testing media; for example, the laboratory's only sheep species identification test kit had expired in August 2017.

The FSIS audit did not identify any findings representing an immediate threat to public health for eligible lamb products that Iceland is currently exporting to the United States. During the audit exit meeting, the CCA committed to address the preliminary findings as presented. FSIS will evaluate the adequacy of the CCA's documentation of proposed corrective actions and base future equivalence verification activities on the information provided.

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I. INTRODUCTION

The Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) conducted an on-site audit of Iceland's food safety system from September 17-21, 2018. The audit began with an entrance meeting held on September 17, 2018, in Reykjavik, Iceland, during which the FSIS auditors discussed the audit objective, scope, and methodology with representatives from the Central Competent Authority (CCA) – Icelandic Food and Veterinary Authority (MAST).

II. AUDIT OBJECTIVE, SCOPE, AND METHODOLOGY

This was a routine ongoing equivalence verification audit. The audit objective was to determine whether the food safety system governing raw lamb products remains equivalent to that of the United States, with the ability to export products that are safe, wholesome, unadulterated, and correctly labeled and packaged. The USDA's Animal and Plant Health Inspection Service (APHIS) recognizes Iceland as free of Foot and Mouth Disease; Classical Swine Fever; and Swine Vesicular Disease. In addition, APHIS has classified Iceland as a negligible risk country for Bovine Spongiform Encephalopathy. Iceland is currently eligible to export raw intact and non-intact lamb, mutton and goat products to the United States.

FSIS applied a risk-based procedure that included an analysis of the country's performance within six equivalence components, product types and volumes, frequency of prior audit-related site visits, point-of-entry (POE) reinspection and testing results, specific oversight activities of government offices, and testing capacities of laboratories. The review process included an analysis of data collected by FSIS over a three-year period, in addition to information obtained directly from the CCA through the self-reporting tool (SRT).

Representatives from the CCA accompanied the FSIS auditors throughout the entire audit. Determinations concerning program effectiveness focused on performance within the following six components upon which system equivalence is based: (1) Government Oversight (e.g., Organization and Administration); (2) Government Statutory Authority and Food Safety and Other Consumer Protection Regulations (e.g., Inspection System Operation, Product Standards and Labeling, and Humane Handling); (3) Government Sanitation; (4) Government Hazard Analysis and Critical Control Points (HACCP) System; (5) Government Chemical Residue Testing Programs; and (6) Government Microbiological Testing Programs.

Administrative functions were reviewed at CCA headquarters, two district offices (audited at the establishments), and two local inspection offices. The FSIS auditors evaluated the implementation of control systems in place that ensure the national system of inspection, verification, and enforcement is being implemented as intended.

FSIS audited the only two establishments certified by Iceland to export to the United States. The product produced at the two slaughter and raw processing establishments for export to the United States is intact raw lamb. During the establishment visits, the FSIS auditors paid particular attention to the extent to which industry and government interacted to control hazards and prevent noncompliance that threatens food safety. The FSIS auditors assessed the CCA's ability

to provide oversight through supervisory reviews conducted in accordance with FSIS equivalence requirements for foreign food safety inspection systems outlined in Title 9 of the United States Code of Federal Regulations (9 CFR) §327.2.

Additionally, FSIS audited one government and one private laboratory to verify their ability to provide adequate technical support to the food safety inspection system.

Competent Authority Visits		#	Locations
Competent Authority	Central	1	• Icelandic Food and Veterinary Authority (MAST), Selfoss (audited at Import-Export Office in Reykjavik)
	District	2	• Northwest District Office, Hvammstangi • South District Office, Selfoss
Laboratories		2	• Syni Laboratory Service (private), Reykjavik • Institute for Experimental Pathology - Keldur (government), Keldur
Lamb slaughter and raw processing establishments		2	• Establishment #A022, Sláturhús KVH, Hvammstangi • Establishment #A081, Sláturfélag Suðurlands, Selfoss

FSIS performed the audit to verify the food safety inspection system met requirements equivalent to those under the specific provisions of United States' laws and regulations. In particular:

- The Federal Meat Inspection Act (21 United States Code [U.S.C.] 601 *et seq.*);
- The Humane Methods of Livestock Slaughter Act (7 U.S.C. 1901-1906); and
- The Meat Inspection Regulations (9 CFR Parts 301 to the end).

The audit standards applied during the review of Iceland's inspection system for raw lamb products included: (1) all applicable legislation originally determined by FSIS as equivalent as part of the initial review process; and (2) any subsequent equivalence determinations that have been made by FSIS under provisions of the World Trade Organization's *Agreement on the Application of Sanitary and Phytosanitary Measures*.

III. BACKGROUND

From July 1, 2015 to June 30, 2018, FSIS import inspectors performed 100 percent re-inspection for labeling and certification on 1,487,729 pounds of raw intact lamb exported by Iceland to the United States. FSIS also performed re-inspection on 226,409 pounds at point-of-entry (POE) for additional types of inspection, including testing for chemical residues, for which no products were rejected for issues related to public health. No products were rejected for non-public health reasons.

Prior to the on-site equivalence verification audit, FSIS reviewed and analyzed Iceland's SRT responses and supporting documentation. During the audit, the FSIS auditors conducted

interviews, reviewed records, and observed operations to determine whether Iceland's food safety inspection system governing raw lamb products is being implemented as documented in the country's SRT responses and supporting documentation. The FSIS final audit reports for Iceland's food safety inspection system are available on the FSIS website at: http://www.fsis.usda.gov/wps/portal/fsis/topics/international-affairs/importing-products/eligible-countries-products-foreign-establishments/foreign-audit-reports.

IV. COMPONENT ONE: GOVERNMENT OVERSIGHT (E.G., ORGANIZATION AND ADMINISTRATION)

The first of six equivalence components that the FSIS auditors reviewed was Government Oversight. FSIS import regulations require the foreign food safety inspection system to be organized by the national government to provide ultimate control and supervision over all official inspection activities; ensure the uniform enforcement of requisite laws; provide sufficient administrative technical support; and assign competent qualified inspection personnel at establishments where products are prepared for export to the United States.

The FSIS auditors verified that the inspection system is organized and administrated by the national government of Iceland. There have been no major changes in the CCA's organizational structure since the last audit. At the national level, MAST is Iceland's CCA, and it is part of the Department of Food and Agriculture of the Ministry of Industries and Innovation (MOII). MAST has one central and six veterinary districts. At the central level, the Chief Veterinary Officer (CVO) of Meat Inspection and the Senior Officer for Contaminants in Foods of MAST prepare and administer the national residue plan and designates laboratories for residue analysis. Iceland is one of the contracting parties to the European Economic Area. Iceland has implemented the European Union (EU) legislation on veterinary matters, foodstuffs, feed, and other food chain-related issues. In addition, MAST issues all directives and guidelines concerning meat export to other countries, certifies or decertifies slaughter establishments for export, and is responsible for the translation, distribution, and implementation of all the United States requirements in certified establishments.

MAST is governed by a Director General who oversees the work of the Office for Animal Health and Welfare and the Office of Consumer Protection. The Office for Animal Health and Welfare and the district offices are responsible for daily controls in establishments certified to export to the United States. Of MAST's six veterinary districts throughout Iceland, only two of them (South district and Northwest district) have certified establishments within their jurisdictions. The Office for Consumer Protection is responsible for regular controls based on risk classification and for setting up inspection teams.

The CVO of Meat Inspection at the MAST headquarters leads the Office for Animal Health and Welfare and oversees the six district offices. Each district office is supervised by a District Veterinary Officer (DVO) who is responsible for coordinating fieldwork and providing supervision to the Official Veterinarians (OVs) assigned to carry out official inspection activities at certified establishments. The OVs are responsible for supervising the post-mortem inspection work carried out by Official Veterinary Inspectors (OVIs). The CVO of Meat Inspection together with the Office of Consumer Protection and the DVOs are responsible for conducting

supervisory reviews at establishments certified to export to the United States.MAST administers the Icelandic food safety inspection system and is responsible for directing, planning, and carrying out food safety and animal health and welfare controls. MAST oversees the functions of the inspection system by designing and implementing inspection-related procedures in accordance with national standards, in addition to those standards imposed by importing countries. MAST has the authority to enforce inspection laws, including enforcement of the *Icelandic Food Law* and *Icelandic Act 93/1995* established in *Icelandic Act 167/2007*. *Article 30* of *Icelandic Act 93/1995* gives MAST the authority and the ability to require corrective actions in certified establishments and to take additional enforcement measures as appropriate. Iceland has issued national legislation to address the implementation of the inspection activities. MAST has the legal authority and responsibility to enforce regulatory requirements equivalent to those governing the system of meat inspection organized and maintained in the United States.

MAST issues guidelines and instructions that deal with the frequency of supervisory reviews and the procedures for registration, approval, conditional approval, or suspension. MAST also provides instructions on the withdrawal of approval of regulated establishments; the verification of the microbiological sampling program; how to perform official inspection tasks; and the development of the residue monitoring plan and the method for carrying out the Icelandic residue control program.

The FSIS auditors performed on-site observations and reviewed records maintained by inspection personnel at headquarters, district offices, and inspection offices within certified establishments. The FSIS audit of the MAST headquarters included an examination of its oversight activities, including the verification of government supervisory review audits of establishments conducted by the Food Control Team (FCT) and MAST's verification of actions taken in response to FSIS' 2016 audit findings. In addition, the FSIS auditors examined enforcement activities, verification activity reports, and training records for official personnel by interviewing departmental personnel and reviewing documentation.

The FSIS auditors' review of MAST's verification of actions taken in response to FSIS' 2016 audit findings identified that all actions taken by MAST were adequately addressed. In response to the 2016 findings, MAST has developed and implemented a standardized procedure to assess, document, and provide feedback on technical competence of government official in-plant inspection personnel (IIP).

MAST is responsible for regulating the meat industry and certifying establishments to export meat products to the United States. It is also responsible for the official certification or decertification of establishments and maintaining the official list of establishments eligible to export to the United States. The FSIS auditors verified that the approval procedures for establishments to be certified as eligible to export to the United States were in accordance with the *Icelandic Regulations* for certifying and de-certifying establishments. MAST has not certified any new establishment to export to the United States since 2002. *Icelandic Act 96/1997, Article 6* prescribes that MAST review certified establishments annually to determine ongoing compliance with all laws and regulations.

The FCT is responsible for conducting supervisory reviews in establishments to certify the establishment as eligible to export to the United States. If the establishment is not following the required procedures, then MAST may take enforcement actions that include instructions for improvement, revocation of certification, and suspension of the issuance of export certificates. The FSIS auditors verified that the MAST officials have conducted the approval process in accordance with Iceland's prescribed procedures to meet regulatory requirements before granting certification to export meat product to the United States.

The FSIS auditors verified through FSIS POE data that no adulterated or misbranded products have been exported to the United States. The FSIS auditors verified that certification labels and marks are approved by MAST and are displayed on outer containers and packages or affixed to dressed carcasses after they have passed inspection for each certified establishment as required by MAST. MAST issues an official export health certificate that certifies that the product being exported to the United States has passed inspections and is not adulterated or misbranded. For each export loading document performance record, the labelling of the product to be shipped is checked and photographed.

The FSIS auditors observed that the same set of laws, regulations, and policies are applied consistently to all establishments certified to export raw lamb products to the United States. The FSIS auditors assessed the performance evaluation of IIP and the completion of supervisory reviews of establishments certified eligible to export to the United States. The FSIS auditors determined that regulatory verification and inspection activities were consistently implemented at all audited establishments, and MAST enforces the rules of their food safety inspection system to identify and document noncompliance and verify the adequacy of corrective actions and preventive measures.

The FSIS auditors observed and verified that the source of lamb used in processing operations is slaughtered at the same certified establishments. Iceland does not import raw materials to further process product for export to the United States; the only products exported to the United States from Iceland are of Icelandic origin.

An official export health certificate for exportation is issued and accompanies the product to be exported. As part of the application process for product exported to the United States, the FSIS auditors verified all tracking information of the products' origin and movement throughout the processing of the product. Records reviewed included establishment sanitation standard operating procedures (sanitation SOPs) and HACCP monitoring and verification records that are associated with each lot of product. The Office of Import and Export signs the certificate, which accompanies the shipment and copies of the originals are retained at the Office of Import and Export. MAST's routine chemical residue testing program does not require the selected carcass (lots) and product thereof be held or controlled until sample results are received and therefore found negative. The FSIS auditors identified the following:

- The MAST allows government inspection personnel to issue an export certificate for product intended for export to the United States before test results are known for samples taken in the CCA's chemical residue program. It should be noted that there have been no positive residue samples identified by MAST or FSIS since the last FSIS audit in 2016.

The FSIS auditors verified that documents that MAST uses to ensure that new United States import requirements are communicated to the certified establishments. MAST conducts an informational meeting for OVs and DVOs that are working at certified establishments before lamb slaughtering season every year. The DVOs receive updates at regular meetings and the CVO reports changes of requirements, controls, regulations, and guidelines with emphasis to DVOs. In addition, MAST maintains an electronic communication system by disseminating new legislation, including MAST instructions to the DVOs via e-mail, who then disseminate the information to IIP.

The FSIS auditors observed that government inspection occurs continuously during slaughter operations, and at least once per production shift during the processing of raw lamb products intended for export to the United States. The FSIS auditors also verified that in Iceland, slaughter and processing establishments certified to export to the United States slaughter an average of 2,400 lambs per day. MAST assigns three inspectors for post-mortem inspection at these establishments (one viscera inspector, and two carcass inspectors). There is also one off-line inspector, an OV, who supervises the IIP conducting post-mortem inspection, in addition to conducting ante-mortem examination and official inspection verification task at each establishment. The OVs are present in the certified establishments during operating hours. MAST has established procedures to ensure sufficient staffing in the event that absences of inspection personnel occur.

Through MAST's database, the progress and results of official controls can be monitored and extrapolated. Information is collected on the progress of official controls in all sectors, harmonization between inspectors, and frequencies and types of noncompliance. Results are continually monitored, and they are collected and compiled in a more systematic manner for review.

The FSIS auditors verified that official IIP assigned to certified establishments exporting raw lamb products to the United States are employees of and paid by the Icelandic government. MAST is responsible for the hiring, training, and payment of government official IIP. All certified slaughter and processing establishments have a staff of at least two full-time veterinarians. To provide adequate staffing during the lamb slaughter season (August-October), MAST hires additional veterinarians and inspectors on a temporary basis. MAST maintains direct authority over all inspection activities and the personnel who conduct them.

Icelandic Regulation 567/2012 details the funding of MAST through inspection fees levied on the certified establishments, and by the Icelandic government budget. In addition, *Icelandic Regulation 234/2010* outlines the fee schedule levied on certified establishments. MAST sends invoices to all certified establishments receiving official inspection. The national government pays the salaries of inspection personnel. The FSIS auditors verified this through a review of employment records, certificates, and identification documents of employees assigned to establishments certified to export to the United States.

The FSIS auditors verified that IIP have the appropriate educational credentials and training to carry out their inspection tasks. In Iceland, all inspection personnel are required to be veterinarians. During the hiring process, MAST ensures that OVIs have a veterinary degree by

requiring a copy of their license to practice veterinary medicine, and requires them to be licensed to work as a veterinarian by MOII. The FSIS auditors reviewed documentation for a select number of inspection personnel at establishments certified to export to the United States to verify that they had the required veterinary degrees.

The FSIS auditors verified that MAST has implemented and conducted initial and ongoing training programs intended to ensure that official IIP are aware of specific food safety and inspection requirements of FSIS import regulations and Iceland's regulations for lamb export to the United States. The FSIS auditors reviewed the recent training provided by the DVOs, which included requirements for sanitation SOPs, HACCP, generic *Escherichia coli* (*E. coli)* verification sampling, and post-mortem inspection. The FSIS auditors verified that ongoing training materials, including program updates in inspection-related issues and procedures, and training participation records were maintained at each level of authority. MAST has implemented a system used to assess the technical competence and performance of individual IIP in conducting official inspection activities at establishments that export to the United States. A performance evaluation is required annually for each IIP at the certified establishments.

MAST does not operate official laboratories, and currently uses two government laboratories (Institute for Experimental Pathology (species testing) at the University of Iceland, and Matís, the Icelandic Food and Biotech R&D Institute) and one contracted private laboratory (Sýni Laboratory Service), both of which are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC). The Matís and Sýni Laboratory Service laboratories are contracted to accept residue samples from slaughter establishments, register the sample and process the sample for shipment to the designated foreign laboratory for analysis. MAST utilizes foreign laboratories, Livsmedelsverket (SLV), Fødevarestyrelsen (FVST), which are accredited by the Danish Accreditation Fund (DANAK), and Eurofins to analyze most of the residue samples.

Iceland's accreditation body, the Icelandic Board for Technical Accreditation (ISAC), a division of the Icelandic Patent Office, assesses the competence of all laboratories that support the National Residue Control Program (NRCP) according to *Icelandic Law 24/2006* on Laboratory Accreditation. The assessment is carried out by SWEDAC on behalf of ISAC according to an agreement between the two accreditation bodies. ISAC and SWEDAC are members of the European co-operation for Accreditation (EA). SWEDAC is also a signatory to the EA Multilateral Agreement for Laboratories (EA MLA) and a member of the International Co-operation for Laboratory Accreditation (ILAC).

MAST is responsible for monitoring residues in live animals and animal products. The FSIS auditors verified that Iceland is sending government-collected samples to a foreign laboratory for screening and confirmation testing. The laboratories Iceland is using must be accredited to International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17025, *General requirements for the competence of testing and calibration laboratories* and are routinely audited to verify that they are meeting the ISO/IEC 17025 standard. The criteria used by MAST for designating official laboratories are under *Icelandic Regulation 106/2010*. The accreditation bodies (ISAC, SWEDAC, and DANAK) provide administrative and technical support to accredited laboratories. Every year MAST reviews and renews the agreement with

the foreign laboratories and maintains the official listing on its website. The FSIS auditors verified that the audited laboratories were accredited in accordance with protocols consistent with ISO/IEC 17025 and are operating in accordance with those criteria.

The FSIS auditors verified that Iceland's government is organized and administers the country's food safety inspection system. The MAST officials enforce laws and regulations governing production and export of intact raw lamb at establishments certified to export to the United States. Nevertheless, MAST currently allows the issuance of an export certificate for product intended for export to the United States even though chemical residue test results have not been confirmed negative prior to shipping to the United States. MAST committed to provide FSIS with corrective action plans, which FSIS will verify once the corrective actions are implemented.

V. COMPONENT TWO: GOVERNMENT STATUTORY AUTHORITY AND FOOD SAFETY AND OTHER CONSUMER PROTECTION REGULATIONS (E.G., INSPECTION SYSTEM OPERATION, PRODUCT STANDARDS AND LABELING, AND HUMANE HANDLING)

The second of six equivalence components that the FSIS auditors reviewed was Government Statutory Authority and Food Safety and Other Consumer Protection Regulations. The system is to provide for humane handling and slaughter of livestock; ante-mortem inspection of animals; post-mortem inspection of each and every carcass and parts; controls over condemned materials; controls over establishment construction, facilities, and equipment; at least once per shift inspection during processing operations; periodic supervisory visits to official establishments; and requirements for thermally processed/commercially sterile products. The FSIS auditors evaluated this component via in-plant record reviews, interviews, and direct observation. This evaluation was in correlation with information provided by MAST in the SRT, POE information, and Iceland's history of compliance.

The FSIS auditors reviewed the slaughter practices at both audited establishments and determined that inspection personnel verify that humane handling and slaughter of livestock is conducted in accordance with provisions contained in *Icelandic Regulation 911/2012*. The FSIS auditors confirmed that the OVs verify that operators comply with humane handling and slaughter requirements, and that they document the results on the *Daily Control in Slaughterhouses* report to ensure that livestock are humanely handled and slaughtered. This includes daily observations of loss of consciousness and accompanying indicative signs of adequate stunning before lambs are shackled and bled. The FSIS auditors verified that humane handling, slaughter, and stunning of lambs was being performed adequately with no incidents of inadequate stunning observed. The FSIS auditors further observed and verified that all animals have access to water in all holding areas, and that establishments have procedures to provide feed if animals are held overnight.

The FSIS auditors verified that the OVs perform ante-mortem inspection of livestock prior to slaughter in accordance with procedures listed in the *MAST Daily Supervision of the Slaughter of Sheep, Pigs and Large Animals* manual and the *MAST Control Guide for Slaughterhouses*, as well as requirements for segregation and disposition of animals having abnormalities or suspected of having diseases. The FSIS auditors verified that veterinarians, in conformity with

Icelandic Regulation 461/2003, conduct all ante-mortem inspections of livestock prior to slaughter. The FSIS auditors further verified that the OVs review the incoming documents of each load/truck including: registration and owner identification documents for traceability of the animal to its source, statements on health of the animal, assurances that no producer has been identified more than two times as a residue violator, and any reports of the detection of animal diseases. The OVs also observe all animals at rest and in motion from both sides in designated holding areas before slaughter in order to determine whether the animals are fit for slaughter, and the OVs document the results on a form for ante-mortem inspection. Each audited slaughter establishment maintains a designated holding pen for further examination of sick or suspect animals. The implementation of the ante-mortem inspection complies with Iceland's requirements for humane handling and slaughter of livestock.

The FSIS auditors observed IIP and verified through a review of *Daily Control in Slaughterhouses* and condemnation records that government official IIP perform post-mortem inspection of each livestock carcass and parts during and after the slaughter of livestock as required by *Icelandic Regulation 105/2010*. MAST requires the IIP to perform direct and continuous (daily) official supervision of slaughter activities, and the inspection system requires post-mortem inspection at the time of slaughter. The FSIS auditors verified that written procedures are in place that instruct IIP (auxiliaries) on how post-mortem examination is to be performed. These included visual inspection and palpation of relevant portions of the animal described within the *MAST Daily Supervision of the Slaughter of Sheep, Pigs and Large Animals* manual.

The FSIS auditors observed and verified that proper presentation, identification, examination, and disposition of carcasses and parts were being implemented. All IIP were adequately trained in performing their on-line post-mortem inspection duties. The FSIS auditors observed the performance of the inspection personnel examining the viscera and carcasses in which the proper observation, palpation of required organs, and lymph nodes were made in accordance with MAST inspection procedures as written in addition to documentation of the *Daily Control in Slaughterhouses* report at each audited certified establishment. The IIP reinspected and verified the adequate removal of all abnormalities on carcasses. Line synchronization of carcasses and viscera was properly maintained. The design of the post-mortem inspection stations including proper lighting and the appropriate number of on-line inspectors was consistent with the requirements of 9 CFR §310.1.

The FSIS auditors observed and verified that MAST provides inspection at least once per shift during processing operations and continuous on-line inspection during slaughter operations at each audited establishment. The inspection verification tasks are outlined on the inspection *Daily Control in Slaughterhouses* form. The OVs use this form to record offline inspection verification tasks. These daily verification activities consisted of direct observation, record review and enforcement of the establishment HACCP, sanitation SOPs, and sanitation performance standards (SPS) economic/wholesomeness, generic *E. coli* testing, other inspection requirements including inspection zero-tolerance verification, and humane handling of livestock.

The FSIS auditors also verified that the inspection personnel are responsible for label verification as part of their inspection. The results of inspections are documented in daily or weekly

inspection reports. Standardized inspection records are available at MAST, except for daily inspection records, which are retained at the OVs' offices at the certified establishments. The FSIS auditors' observations, interviews and the review of daily inspection records verified that inspection is occurring as prescribed with the exception of the following.

The CCA provides inadequate oversight of government in-plant inspection personnel (IIP) at establishments that are certified to export to the United States. The FSIS auditors identified the following:

- In one of two audited establishments, the IIP were not conducting pre-operational sanitation verification activities in the fabrication and packaging room. Only the slaughter department areas were verified by IIP.
- In one of two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring. Therefore, the government was not verifying the establishment process control for fecal material, ingesta, and milk in slaughter.
- In one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on their official inspection *Daily Control in Slaughterhouses* form, as required by the CCA guidelines. There was evidence that the verification tasks were being conducted but the documentation was not consistent with MAST guidelines as some of the task were documented across various unofficial MAST forms.

The FSIS auditors verified that a MAST representative of the government inspection system makes periodic supervisory visits to each certified establishment to evaluate the performance of inspection personnel. These reviews are conducted by the FCT, which includes the CVO of Meat Inspection, together with the Office of Consumer Protection, and the DVOs from the district office monthly during the lamb slaughter season in accordance with the food inspection manual.

The FSIS auditors reviewed the most recent supervisory review report and determined that supervisory visits are conducted at the prescribed frequencies. Supervisory reviews were conducted using a standard checklist form, *Veterinary Checklist-Daily-Monthly-checks*, which consists of detailed sections for evaluating the adequacy of an establishment's food safety system. The sections include items related to ante-mortem and post-mortem inspection, humane handling and slaughter activities, verification of SPS elements, sanitation SOPs, HACCP, and microbiological control for generic *E. coli*, label verification, species verification test results, separation of United States product within the establishment, and official controls over condemned material.

The periodic supervisory review reports are distributed to the audited establishment's OV and the related district office and entered into an on-line database that collects regular inspections activities of all establishments producing farm animal products. If deficiencies are identified, the OVs are responsible for verification of corrective actions resulting from the supervisory reviews. The FCT is responsible for conducting follow-up verification of the corrective actions proposed by the establishment during the next supervisory review. The FCT is also responsible for

confirming that the OVs had verified those corrective actions in order to evaluate the effectiveness and implementation of the establishment's action plan. The FSIS auditors reviewed the supervisory review reports and inspection-related records and concluded that MAST demonstrated that they were consistent in their evaluation of the adequacy of the establishments' food safety system and the capability of IIP to conduct inspection activities at certified establishments.

The FSIS auditors verified that complete separation is maintained between product certified for export to the United States and domestic product. The OVs in certified establishments control products from non-certified establishments ensuring they are not received and processed in certified establishments. The FSIS auditors noted that the audited establishments processed only meat from lambs that were slaughtered on-premises and did not receive any raw materials from outside sources. MAST ensures that lamb exports are not subject to animal health restrictions by regularly consulting the relevant sections of the APHIS website for current APHIS restrictions. Consequently, only those products previously identified by MAST as meeting both FSIS and APHIS requirements can be certified for export to the United States.

The FSIS auditors verified that control over condemned and inedible materials is maintained through *Regulation (EC) No. 1069/2009* and implemented through *Icelandic Regulation 674/2017* and MAST's *Daily Supervision of the Slaughter of Sheep, Pigs and Large Animals* manual. Condemned and inedible materials are appropriately identified in accordance with the categories described therein, segregated in specially-marked or otherwise secure containers, and burned by the establishments' own risk-material incinerator that is licensed by Iceland's Environment Agency.

Iceland's food safety inspection system continues to maintain the legal authority, a regulatory framework, and adequate verification procedures to ensure sufficient official regulatory control actions to prevent products from contamination when insanitary conditions or practices are present, are consistent with criteria established for this component. The findings in this component relate to the CCA not providing adequate oversight of IIP at establishments that are certified to export to the United States.

VI. COMPONENT THREE: GOVERNMENT SANITATION

The third of six equivalence components that the FSIS auditors reviewed was Government Sanitation. The FSIS auditors verified that the CCA requires each official establishment to develop, implement, and maintain written sanitation SOPs to prevent direct product contamination or insanitary conditions.

MAST requires that each official establishment operate in such a manner as to prevent insanitary conditions, focus attention on those aspects of sanitation that pose a risk of causing direct product contamination, take action to prevent product contamination when insanitary conditions or contaminated products are found, correct insanitary conditions, and properly dispose of contaminated product. Through the adoption of *Regulation (EC) No. 852/2004* requiring general hygiene rules applying to all foodstuffs and *Regulation (EC) No. 853/2004* requiring specific

hygiene rules for products of animal origin, MAST requires that establishments operate in a sanitary manner, and has specific requirements to maintain sanitary standards.

The FSIS auditors verified that MAST ensured that each certified establishment operates in a sanitary manner through record reviews, observations, and interviews. The on-site OVs verify that the establishment implements sanitary dressing procedures throughout the slaughter process on a daily basis. MAST provides guidance to inspection personnel on official control procedures for slaughter hygiene verification and on ongoing assessment of the establishment's compliance with food hygiene requirements from acceptance of animals for slaughter through carcass dressing and chilling.

The IIP follow the guidelines in the *Inspection Manual for Daily Work Activities in Slaughterhouses for Sheep, Pig, and other Large Species* to ensure that requirements consistent with 9 CFR §416 are met and the results recorded on the *Daily Control in Slaughterhouses* form. The IIP at the final rail position inspect each lamb carcass to ensure that it has no visible fecal material, ingesta, and milk contamination, and that the carcasses are trimmed and then reinspected by the IIP before entering the cooler. The IIP further verify the establishment's ability to implement corrective actions and compliance with slaughter hygiene verification at final inspection with MAST requirements in *Icelandic Act 93/1995, Article 10. Icelandic Act 93/1995, Article 30*, prescribes MAST's authority to take effective enforcement actions, including suspension and withdrawal of inspection for those establishments that fail to prevent product contamination or fail to take corrective actions.

The FSIS auditors verified that the condition of the certified establishments' construction, facilities, and equipment are adequate to prevent the contamination or adulteration of raw lamb products designated for export to the United States. *Regulation (EC) No. 852/2004* has the general and specific requirements for standards of construction, facilities, and equipment. MAST's inspection system has official controls over establishment construction, facilities, and equipment, and it has the authority to take formal enforcement action to direct an establishment to rectify both hygiene and structural deficiencies.

The FSIS auditors verified that certified establishments develop, implement, and maintain daily pre-operational and operational sanitation procedures sufficient to prevent the direct contamination or adulteration of meat products designated for export to the United States. *Icelandic Act 93/1995, Article 10* requires that all certified establishments develop and implement internal controls to prevent contamination, namely a sanitation SOP.

The FSIS auditors assessed the adequacy of pre-operational inspection by directly observing the IIP conducting pre-operational verification of the establishment's sanitation program at one of the audited establishments. The IIP conducted this activity in accordance with the established procedures, including a pre-operational record review of the establishment's monitoring results and an organoleptic inspection of food contact surfaces of facilities, equipment, and utensils with no concerns observed by the FSIS auditors.

The FSIS auditors observed the IIP's verification of operational sanitation procedures in both audited establishments, comparing the overall sanitary conditions of all audited establishments to

the government inspection verification records. The FSIS auditors also examined the IIP's documentation of sanitation noncompliance records and verified that the inspection personnel took regulatory enforcement control actions sufficient to ensure that sanitary conditions were restored and product was protected from contamination. In addition, at least once per month during the lamb slaughter season, the DVOs perform evaluations of the certified establishments authorized to export to the United States. This evaluation includes sanitation SOP program verification.

The FSIS auditors' noted observations and record reviews, including the establishment's sanitation monitoring and corrective action records, as well as those of inspection personnel documenting inspection verification results and periodic supervisory reviews, mirrored the actual sanitary conditions of the establishment and found that inspection personnel were adequately verifying whether establishments met requirements.

In both of the audited establishments, the FSIS auditors identified isolated sanitation findings that are noted in their respective individual establishment checklist provided in Appendix A of this report. Except for these findings, MAST's food safety inspection system continues to maintain sanitary regulatory requirements that meet the core requirements for this component.

VII. COMPONENT FOUR: GOVERNMENT HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP) SYSTEM

The fourth of six equivalence components that the FSIS auditors reviewed was Government HACCP System. The food safety inspection system is to require that each official establishment develop, implement, and maintain a HACCP system.

The FSIS auditors verified that the CCA requires certified establishments to develop, implement, and maintain a HACCP system. MAST adheres to the requirements set forth in *Regulation (EC) No. 852/2004, Article 5*. Through the *Icelandic Regulations 103/2010* and *105/2010,* MAST contains regulatory requirements requiring establishments certified to export to the United States to develop, implement, and maintain a HACCP plan identifying food safety hazards and institute controls to prevent or eliminate the hazards..

MAST, through the inspection manual and control plans, requires that the OVs verify the establishment's HACCP plan procedures by assessing whether the plan complies with all applicable requirements. In addition, MAST's FCT and the DVO verify whether the certified establishment's HACCP plan is adequate, and they assess compliance of the plan with all requirements in the aforementioned documents, including inspection tasks and procedures performed by the IIP at these establishments at least once a month.

The FSIS auditors verified the adequacy of design and implementation of HACCP programs at the two audited establishments. The FSIS auditors conducted an on-site review of both the establishments' HACCP systems, including flow charts, hazard analyses, and HACCP plans. The FSIS auditors verified that establishments' HACCP plans identify the critical control points (CCPs), the critical limits to be monitored, the monitoring frequency, the corrective actions to be implemented when a deviation occurs, and verification activities to be implemented.

The FSIS auditors, together with the inspection personnel, observed the establishments' procedures for controlling fecal matter, ingesta, and milk (i.e., zero-tolerance) during lamb slaughter, including the establishment employees conducting hands-on HACCP monitoring and verification activities for the zero-tolerance CCP. The FSIS auditors also verified the physical zero-tolerance CCP location by observing an establishment employee conducting HACCP hands-on verification activities at this CCP location, and making a direct examination of carcasses, in addition to the OV at one establishment conducting HACCP hands-on verification activities at this CCP location. In one of the two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring. Therefore, the government was not verifying the establishment process control for fecal material, ingesta, and milk in slaughter.

The FSIS auditors visited two lamb slaughter establishments to determine whether MAST maintained adequate government oversight for the implementation of HACCP requirements. The FSIS auditors verified that the OVs conducted daily verification activities of HACCP plans in accordance with the aforementioned documents. The OVs are responsible for performing verification activities that include the review of the establishment's written HACCP plans and their contents, review of establishment-generated HACCP monitoring and verification records, and direct observation verification of those procedures by the establishment to assess the adequacy of implementation of HACCP plans on the part of the establishments.

The OVs are to use a *Daily Inspection Verification Schedule* form and the *Daily Inspection of Slaughterhouses* form to direct them to conduct specific HACCP plan verification tasks and to document daily inspection verification activity results, including findings and verification of actions taken. The FSIS auditors observed through a review of the records in one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on their official inspection *Daily Control in Slaughterhouses* form, as required by the CCA guidelines. At least once per month during the lamb slaughtering season, the FCT verifies the adequacy of the HACCP system via the inspection manual.

The FSIS auditors' on-site verification activities and analysis indicate that MAST requires operators of establishments certified to export to the United States to develop, implement, and maintain HACCP systems. However, one of two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring; and one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on their official inspection *Daily Control in Slaughterhouses* form, as required by the CCA guidelines, as documented under the government statutory authority and food safety and other consumer protection regulations (e.g., inspection system operation, product standards and labeling, and humane handling) component of this report.

VIII. COMPONENT FIVE: GOVERNMENT CHEMICAL RESIDUE TESTING PROGRAMS

The fifth of six equivalence components that the FSIS auditors reviewed was Government Chemical Residue Testing Programs. The food safety inspection system is to present a chemical

residue testing program, organized and administered by the national government, which includes random sampling of internal organs, fat, and muscle of carcasses for chemical residues identified by the exporting country's meat inspection authorities or by FSIS as potential contaminants.

Prior to the on-site visit, FSIS' chemical residue experts reviewed Iceland's NRCP for 2018, associated methods of analysis, and additional SRT responses outlining the structure of Iceland's chemical residue testing program. FSIS has not identified any POE violations related to this component since the last FSIS audit in 2016. FSIS based its verification of Iceland's NRCP on information contained in its NRCP sampling plan and previous years (2016-2017) testing results. The FSIS auditors also conducted an on-site audit of one laboratory that sorts and sends residue samples to foreign laboratories for analyses on products exported to the United States.

The FSIS auditors verified that MAST continues to maintain the legal authority to regulate, plan, and execute activities of the inspection system that are aimed at preventing and controlling the presence of residues of veterinary drugs and chemical contaminants in the tissues of lamb slaughtered for human consumption in accordance with provisions in the *Icelandic Food Law*. MAST additionally has the legal authority for surveillance of chemical residues and to prevent/control/enforce the entry, commercialization, and outlet of products of animal origin that have chemical residues in excess of the maximum levels allow by national and international standards. The Chief of Meat Inspection and the Senior Officer for Contaminants in Foods administer the NRCP.

The NRCP identifies the substances that should be analyzed for meat products intended for export to the United States. The program covers the use of banned and controlled (regulated) drugs, heavy metals, pesticides, and pollutants (e.g., polychlorinated biphenyls, dioxins, and insecticides). The NRCP also lists the proposed tissue and cites from where the sample will be collected, as well as the laboratory and testing method used for analysis of samples. The NRCP includes random sampling and testing of internal organs and fats for targeted residues, implementing risk analysis in chemical residue areas that FSIS regulates, and monitoring lamb meat for chemical residues identified by the importing country's meat inspection authorities as potential contaminants.

The NRCP is designed and conducted in accordance with the *Icelandic Food Law* and is further derived from the following regulations: *Icelandic Regulation 30/2012*, on the control of residues in animal products; *Icelandic Regulation 653/2001* on maximum residue limits in meat, eggs, and milk; *Icelandic Regulation 265/2010* on setting maximum levels for certain contaminants in foodstuffs; *Icelandic Regulation 768/2010* on medicinal products; and *Icelandic Regulation 539/2000* on prescribing veterinarians.

Icelandic Regulation 30/2012, Article 11, describes the procedures that MAST is to implement after confirming a positive result to determine if there was illegal administration of specific compounds of concern. These procedures include the following: gathering information identifying the animal and farm of origin; investigating the farm of origin to determine the reason for the presence of residues; and, if the treatment is illegal, trace the origin of the materials or products in the production, processing, storage, transport, handling, distribution, and marketing.

During interviews with MAST, DVOs, and certified establishment government inspection officials, FSIS auditors verified that MAST does have a policy or procedure to address if a product was released into commerce and results were violative. MAST would notify certified establishments, FSIS, and the Rapid Alert System for Food and Feed (RASFF), a tool used by the EU to react promptly when risks to public health are detected in the food chain. MAST's routine chemical residue testing program does not require the selected carcass and products thereof be held or controlled and not exported until receipt of negative results of samples.

Icelandic Regulation 30/2012, Articles 12 and *13* describe the procedures MAST is to implement after establishing that specific compounds of concern were administered illegally. These procedures include the following: placing the involved livestock under official MAST surveillance, and ensuring that all involved livestock bear an official mark of identification. Further, MAST places a ban on livestock originating from certain farms or processing centers. In the case of repeated violations, MAST increases the number of samples taken for a six-month period and withholds product until the sample results come back negative. If the results come back positive, the product will be declared unfit for human consumption.

The FSIS auditors verified implementation of the NRCP at the two audited slaughter establishments. The official monitoring is conducted according to the NRCP, which is defined every year. The plan lists the residue group, the number of samples for the group, and the matrix for each month. The OVs are responsible for the collection of samples at slaughterhouses. The OVs who collect residue samples at the lamb slaughter establishments have received sufficient training that includes such subjects as sampling methodology, identification of animals, traceability, and sample security.

The FSIS auditors verified that the inspection personnel are following guidance in the NRCP SOP, *Instructions for Residue Sampling*, which details the following: gathering information on production number and changing the use of veterinary drugs; developing the NRCP, contract with laboratories, sample summary, sampling equipment, sampling forms, preparation of sampling kits, receiving of samples, noncompliance of samples, and enforcement actions for positive samples. This guidance includes random sampling and testing of internal organs, fat, and muscle of carcasses for targeted residues, and secure delivery of residue samples to the designated laboratory in accordance with the prescribed methodology provided by MAST based on the *Instructions for Residue Sampling*. Once samples are collected, the OV completes the laboratory submission form and a copy is packaged with the sample, which the OV secures with a security seal to maintain integrity. The sample is then transported by official courier to the sample registration and preparation laboratories contracted by MAST. Residue results are communicated to the MAST headquarters, DVOs, OVs, and the establishment through e-mail.

MAST does not operate official laboratories; therefore, analysis of samples for residues is contracted to two laboratories to facilitate the handling of samples to be analyzed: the Syni Laboratory Service, a private laboratory; and the Matís laboratory, a government laboratory, both located in Reykjavik. These laboratories do not conduct any analysis on samples received from IIP. Personnel at these laboratories only sort and ship residue samples in their original immediate sample packaging material to foreign laboratories Livsmedelsverket, and Eurofins in Sweden and Fødevarestyrelsen in Denmark for analysis. In the case of a positive sample, the

laboratory immediately notifies MAST via e-mail; the CVO of Meat Inspection and DVO evaluate the results and determine if enforcement actions are necessary per *Icelandic Regulation 30/2012.*

The FSIS auditors conducted an on-site audit of the Syni Laboratory Service. The FSIS auditors observed a demonstration by laboratory personnel on residue sample receipt and handling, including checking sample integrity and security, registration of the sample per the laboratory quality assurance system, assigning the identification and storage of samples, and the packaging of samples for shipment in accordance with the laboratory's standard operating procedure. The FSIS auditors verified that the private laboratory handling the samples received and notified MAST of the collection and shipment to foreign laboratories in a timely manner. No concerns arose from these observations and reviews.

The FSIS auditors verified that Iceland's food safety inspection system continues to maintain a chemical residue testing program, organized and administered by the national government. It maintains the legal authority to regulate, plan, and execute activities of the inspection system that are aimed at preventing and controlling the presence of residues of veterinary drugs and contaminants in lamb products destined for export to the United States.

IX. COMPONENT SIX: GOVERNMENT MICROBIOLOGICAL TESTING PROGRAMS

The sixth of six equivalence components that the FSIS auditors reviewed was Government Microbiological Testing Programs. The food safety inspection system is to implement certain sampling and testing programs to ensure that meat products prepared for export to the United States are safe and wholesome.

The evaluation of this component included a review and analysis of *Icelandic Regulation 650/2001,* which contains the regulatory requirements for establishments exporting meat and meat products to the United States. The aforementioned document's *Article 2* requires certified establishments to have a written sampling program addressing *E. coli* to include the following: written instructions regarding sampling, labeling of samples, sampling method, sample handling, interpretation of results, and corrective actions. Specific requirement for testing and minimum sampling are written in the aforementioned document and *Regulation (EC) No. 2073/2005*. Additionally, MAST mandates that all establishments have a recall program in place and a trace back system for product produced.

The FSIS auditors accompanied and observed the in-plant inspection verification activities for establishment generic *E. coli* sample collection in the audited lamb slaughter establishments. The FSIS auditors verified that the establishment's microbiological sampling and testing program for meat verifies process control in slaughter operations using microbiological analyses for indicators of intestinal and fecal contamination. MAST requires all establishments certified to export product to the United States test for generic *E. coli* as part of its sanitation control procedures and to assess the effectiveness of process control. Iceland's requirements are consistent with FSIS regulatory requirements cited in 9 CFR § 310.25(a) for generic *E. coli* with a focus on lamb slaughter as the only species eligible for export to the United States. *Icelandic*

Regulation 650/2001, *Article 15*, requires certified establishments to take corrective actions if permissible levels are exceeded. Additionally, MAST may withdraw the mark of inspection until appropriate measures have been taken to prevent contamination by *E. coli* during slaughter as described in *Icelandic Regulation 650/2001*, *Article 16*.

MAST IIP conduct daily verification activities monitoring certified establishments' implementation of their generic *E. coli* testing program in chilled lamb carcasses and record the results on the *Daily Control in Slaughterhouses* form. MAST uses the test results to verify that the establishment's slaughter dressing controls for fecal material and ingesta contamination are adequate. In addition, the OV also verifies on a daily basis that the certified establishment is implementing their sampling program and procedures according to the provisions in *Regulation (EC) No. 2073/2005*. Furthermore, the CVO of Meat Inspection and the DVOs verify control of *E. coli* in certified establishments during the monthly supervisory review and record results on the *Control of E. coli in Slaughterhouses* checklist. The verification activity includes that each establishment uses appropriate sampling methodology; that their laboratory uses an appropriate method for analysis; that test results are documented and correctly evaluated; and appropriate corrective actions are taken, if the upper control limits are exceeded.

The FSIS auditors verified through document reviews, direct observation of sampling, and interviews of DVOs and OVs that the two audited slaughter establishments had implemented a microbiological testing program to verify process control by conducting generic *E. coli* testing of livestock carcasses. The responsible individuals had the knowledge and skills to implement this type of testing on an ongoing basis, and those individuals were familiar with the upper and lower control limits, as well as with appropriate corrective actions if when the upper limits are exceeded. The FSIS auditors observed sampling and reviewed testing results. Records showed that the establishments routinely met their limits, and that there has not been any identified loss of process control. The FSIS auditors also verified that contracts are established between the private laboratory and slaughterhouses that MAST inspects. No concerns arose as a result of verification of MAST's *E. coli* testing program.

The FSIS auditors conducted an on-site audit of a government-approved private microbiological testing laboratory, Syni Laboratory Service, to verify their ability to provide adequate microbiological testing support to MAST's food safety inspection system. The FSIS auditors verified that the SWEDAC Accreditation Certificate and Scope of Accreditation issued to the Syni Laboratory met the criteria of ISO/IEC 17025. The review of the internal procedures and on-site observations verified that training records, sampling procedures, analytical procedures, quality assurance procedures, calibration and temperature recording, and intra-laboratory check samples for this laboratory are being properly implemented and documented in records. The Syni Laboratory Service quality control program manager documented the noncompliance and demonstrated the corrective actions and preventive measures, showing how their quality assurance procedures work. The FSIS auditors verified the Syni Laboratory Service was performing proper analysis and possessed the technical capability to test product destined for the United States.

In addition, the FSIS auditors conducted an on-site audit of the government laboratory, Institute for Experimental Pathology, to verify their ability to provide adequate support to MAST's food

safety inspection system. This laboratory only conducts control testing for species identification for MAST. The FSIS auditors verified that the lab was accredited by SWEDAC. The review of the internal procedures and on-site observations verified that sampling procedures, analytical procedures, calibration, and temperature recording for this laboratory are being properly implemented and documented in records. However, the FSIS auditors found that quality assurance procedures in the laboratory control manual were not completely followed.

- The CCA provides inadequate oversight of Iceland's government laboratory. The laboratory did not follow written procedures in the laboratory's quality assurance manual for monitoring testing media; for example the laboratory's only sheep species identification test kit had expired in August 2017.

The FSIS auditors determined that Iceland's food safety inspection system continues to maintain equivalent regulatory requirements for its government microbiological testing program that meet the core requirements for this component with one exception. There have not been any POE violations related to this component since the last FSIS audit.

X. CONCLUSIONS AND NEXT STEPS

An exit meeting was held on September 21, 2018, in Reykjavik, Iceland, with MAST. At this meeting, the FSIS auditors presented the preliminary findings from the audit. An analysis of the findings within each component did not identify any deficiencies that represented an immediate threat to public health. The FSIS auditors identified the following findings:

Government Oversight (e.g., Organization and Administration)

- The CCA allows government inspection personnel to issue an export certificate for product intended for export to the United States before test results are known for samples taken in the CCA's chemical residue program.

Government Statutory Authority and Food Safety and Other Consumer Protection Regulations (e.g., Inspection System Operation, Product Standards and Labeling, and Humane Handling)

- The CCA provides inadequate oversight of government IIP at establishments that are certified to export to the United States. The FSIS auditors identified the following:
    - In one of two audited establishments, the IIP were not conducting pre-operational sanitation verification activities in the fabrication and packaging room.
    - In one of two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring.
    - In one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on the official inspection *Daily Control in Slaughterhouses* form, as required by the CCA guidelines.

Government Microbiological Testing Programs

- The CCA provides inadequate oversight of Iceland's government laboratory. The laboratory did not follow procedures for monitoring testing media; for example, the laboratory's only sheep species identification test kit had expired in August 2017.

The FSIS audit did not identify any findings representing an immediate threat to public health for eligible lamb products that Iceland is currently exporting to the United States. During the audit exit meeting, the CCA committed to address the preliminary findings as presented. FSIS will evaluate the adequacy of the CCA's documentation of proposed corrective actions and base future equivalence verification activities on the information provided.

APPENDICES

Appendix A: Individual Foreign Establishment Audit Checklists

United States Department of Agriculture
Food Safety and Inspection Service

Foreign Establishment Audit Checklist

1. ESTABLISHMENT NAME AND LOCATION	2. AUDIT DATE	3. ESTABLISHMENT NO.	4. NAME OF COUNTRY
Slaturhus KVH ehf Norðurbraut 24 530 Hvammstangi	09/18/2018	A022	Iceland
	5. AUDIT STAFF OIEA International Audit Staff (IAS)		6. TYPE OF AUDIT [X] ON-SITE AUDIT [ ] DOCUMENT AUDIT

Place an X in the Audit Results block to indicate noncompliance with requirements. Use O if not applicable.

Part A - Sanitation Standard Operating Procedures (SSOP) Basic Requirements	Audit Results
7. Written SSOP	
8. Records documenting implementation.	
9. Signed and dated SSOP, by on-site or overall authority.	
Sanitation Standard Operating Procedures (SSOP) Ongoing Requirements	
10. Implementation of SSOP's, including monitoring of implementation.	
11. Maintenance and evaluation of the effectiveness of SSOP's.	
12. Corrective action when the SSOP's have failed to prevent direct product contamination or adulteration.	
13. Daily records document item 10, 11 and 12 above.	
Part B - Hazard Analysis and Critical Control Point (HACCP) Systems - Basic Requirements	
14. Developed and implemented a written HACCP plan .	
15. Contents of the HACCP list the food safety hazards, critical control points, critical limits, procedures, corrective actions.	
16. Records documenting implementation and monitoring of the HACCP plan.	
17. The HACCP plan is signed and dated by the responsible establishment individual.	
Hazard Analysis and Critical Control Point (HACCP) Systems - Ongoing Requirements	
18. Monitoring of HACCP plan.	
19. Verification and validation of HACCP plan.	
20. Corrective action written in HACCP plan.	
21. Reassessed adequacy of the HACCP plan.	
22. Records documenting: the written HACCP plan, monitoring of the critical control points, dates and times of specific event occurrences.	
Part C - Economic / Wholesomeness	
23. Labeling - Product Standards	
24. Labeling - Net Weights	
25. General Labeling	
26. Fin. Prod. Standards/Boneless (Defects/AQL/Pork Skins/Moisture)	
Part D - Sampling Generic *E. coli* Testing	
27. Written Procedures	
28. Sample Collection/Analysis	
29. Records	
Salmonella Performance Standards - Basic Requirements	
30. Corrective Actions	
31. Reassessment	
32. Written Assurance	

Part D - Continued Economic Sampling	Audit Results
33. Scheduled Sample	
34. Species Testing	
35. Residue	
Part E - Other Requirements	
36. Export	
37. Import	O
38. Establishment Grounds and Pest Control	
39. Establishment Construction/Maintenance	
40. Light	
41. Ventilation	X
42. Plumbing and Sewage	
43. Water Supply	
44. Dressing Rooms/Lavatories	
45. Equipment and Utensils	
46. Sanitary Operations	
47. Employee Hygiene	
48. Condemned Product Control	
Part F - Inspection Requirements	
49. Government Staffing	
50. Daily Inspection Coverage	
51. Enforcement	X
52. Humane Handling	
53. Animal Identification	
54. Ante Mortem Inspection	
55. Post Mortem Inspection	
Part G - Other Regulatory Oversight Requirements	
56. European Community Directives	
57. Periodic Supervisory Reviews	
58. Sanitation – SOP Government Verification Implementation	X
59. Inspection Zero-Tolerance Verification	X

60. Observation of the Establishment

41/51 SPS - Ventilation

During the walkthrough of the establishment the FSIS auditors observed in the Slaughter Post-mortem Department beaded condensation in several locations over and near areas were lamb carcasses pass under. Product was exposed to the possibility of contamination; however there did not appear to be any dripping condensation at the time of the observation.

The FSIS auditors' review of the seasonal slaughter records from 2018 of SSOP operational monitoring records for did not indicated that the establishment had identified condensation previously.

A review of MAST inspection verification documentation did not identify any deficiencies related to condensation during that same time frame.

The Official Veterinarian took regulatory control and informed the establishment of the non-compliance. Immediate actions were taken by the establishment and the Official Veterinarian will verify establishment's additional measures to prevent the reoccurrence.

MAST will provide FSIS additional measures taken to address the identified deficiency.

58 Sanitation – SOP Government Verification Implementation

The FSIS auditors' record observation, record review and interview with inspection personnel identified that the in-plant inspection personnel conduct pre-operational sanitation SOP verification activities at the establishment daily. However, they were not conducting pre-operational sanitation verification activities in the fabrication and packaging room. Only the slaughter department areas were verified by in-plant inspection personnel.

MAST will provide FSIS with actions taken to address the identified deficiency.

59 Inspection Zero-Tolerance Verification

During the walkthrough of the establishment the FSIS auditors' observed the in-plant inspection personnel were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring. Therefore, the government was not verifying the establishment process control for fecal material, ingesta, and milk in slaughter. However, each time inspection personnel found fecal material or ingesta the establishment took immediate action by trimming the carcass.

In addition, the FSIS auditors' review of inspection daily verification reports identified that there was no addition action taken to document the verification activity and noncompliance beside a tag with the deficiency noted which was affixed to the carcass.

MAST will provide FSIS with actions taken to address the identified deficiency.

61. AUDIT STAFF	62. DATE OF ESTABLISHMENT AUDIT
OIEA International Audit Staff (IAS)	09/18/2018

United States Department of Agriculture
Food Safety and Inspection Service

Foreign Establishment Audit Checklist

1. ESTABLISHMENT NAME AND LOCATION	2. AUDIT DATE	3. ESTABLISHMENT NO.	4. NAME OF COUNTRY
Slaturfelag Sudurlands Fossnesi 800 Selfoss	09/19/2018	A081	Iceland
	5. AUDIT STAFF OIEA International Audit Staff (IAS)		6. TYPE OF AUDIT [X] ON-SITE AUDIT [ ] DOCUMENT AUDIT

Place an X in the Audit Results block to indicate noncompliance with requirements. Use O if not applicable.

Part A - Sanitation Standard Operating Procedures (SSOP) Basic Requirements	Audit Results
7. Written SSOP	
8. Records documenting implementation.	
9. Signed and dated SSOP, by on-site or overall authority.	
Sanitation Standard Operating Procedures (SSOP) Ongoing Requirements	
10. Implementation of SSOP's, including monitoring of implementation.	
11. Maintenance and evaluation of the effectiveness of SSOP's.	
12. Corrective action when the SSOP's have failed to prevent direct product contamination or adulteration.	
13. Daily records document item 10, 11 and 12 above.	
Part B - Hazard Analysis and Critical Control Point (HACCP) Systems - Basic Requirements	
14. Developed and implemented a written HACCP plan .	
15. Contents of the HACCP list the food safety hazards, critical control points, critical limits, procedures, corrective actions.	
16. Records documenting implementation and monitoring of the HACCP plan.	
17. The HACCP plan is signed and dated by the responsible establishment individual.	
Hazard Analysis and Critical Control Point (HACCP) Systems - Ongoing Requirements	
18. Monitoring of HACCP plan.	
19. Verification and validation of HACCP plan.	
20. Corrective action written in HACCP plan.	
21. Reassessed adequacy of the HACCP plan.	
22. Records documenting: the written HACCP plan, monitoring of the critical control points, dates and times of specific event occurrences.	
Part C - Economic / Wholesomeness	
23. Labeling - Product Standards	
24. Labeling - Net Weights	
25. General Labeling	
26. Fin. Prod. Standards/Boneless (Defects/AQL/Pork Skins/Moisture)	
Part D - Sampling Generic *E. coli* Testing	
27. Written Procedures	
28. Sample Collection/Analysis	
29. Records	
Salmonella Performance Standards - Basic Requirements	
30. Corrective Actions	
31. Reassessment	
32. Written Assurance	

Part D - Continued Economic Sampling	Audit Results
33. Scheduled Sample	
34. Species Testing	
35. Residue	
Part E - Other Requirements	
36. Export	
37. Import	O
38. Establishment Grounds and Pest Control	
39. Establishment Construction/Maintenance	X
40. Light	
41. Ventilation	
42. Plumbing and Sewage	
43. Water Supply	
44. Dressing Rooms/Lavatories	
45. Equipment and Utensils	X
46. Sanitary Operations	
47. Employee Hygiene	
48. Condemned Product Control	
Part F - Inspection Requirements	
49. Government Staffing	
50. Daily Inspection Coverage	
51. Enforcement	X
52. Humane Handling	
53. Animal Identification	
54. Ante Mortem Inspection	
55. Post Mortem Inspection	
Part G - Other Regulatory Oversight Requirements	
56. European Community Directives	
57. Periodic Supervisory Reviews	
58. Inspection Verification Documentation	X
59.	

60. Observation of the Establishment

39/51 SPS – Establishment Maintenance

During the walkthrough of the establishment the FSIS auditors observed the following establishment maintenance issues:

1. In the freezer where product that can potentially be exported to the United States is stored, walls that were in a deteriorated state where parts of the plating on the wall were separated from the main structure exposing crumbling concrete.
2. In the Fabrication Department rust was observed on several structures (line gear and door hydraulic closing pump)

   No product was exposed to the possibility of contamination related to these deficiencies during the time of the audit at this establishment.

The Official Veterinarian took regulatory control and informed the establishment of the non-compliance. Immediate actions were taken by the establishment and the Official Veterinarian will verify establishment's additional measures to prevent the reoccurrence.

MAST will provide FSIS additional measures taken to address the identified deficiency.

45/51 SPS – Maintenance of Equipment

During the walkthrough of the establishment the FSIS auditors observed in the Packaging Department overhead refrigeration units had extensive grime buildup on the exhaust fans. All product in the area was packaged and boxed. There was no exposed product in the area.

The FSIS auditors' review of establishment seasonal sanitation monitoring records from 2018 and 2017, did not indicated that the establishment had identified the above issue previously.

A review of MAST inspection verification documentation did not identify any deficiencies related to equipment maintenance during that same time frame.

The OV took regulatory control and informed the establishment of the non-compliance. Immediate actions were taken by the establishment and the OV will verify establishment's additional measures to prevent the reoccurrence.

MAST will provide FSIS additional measures taken to address the identified deficiency.

58 Inspection Verification Documentation

The FSIS auditors' review of inspection daily verification reports identified that the in-plant inspection personnel were not consistently documenting that sanitation and HACCP verification tasks were completed on their official inspection Daily Control in Slaughterhouses form, as required by the CCA guidelines. There was evidence that the verification tasks were being conducted but the documentation was not consistent with MAST guidelines as some of the task were documented across various unofficial MAST forms. When asked, inspection personnel could not clearly indicate what verification task are associated with the various sections of the verification reports that they have completed.

MAST will provide FSIS with actions taken to address the identified deficiency.

61. AUDIT STAFF	62. DATE OF ESTABLISHMENT AUDIT
OIEA International Audit Staff (IAS)	09/19/2018

Appendix B: Foreign Country Response to the Draft Final Audit Report

Food Safety and Inspection Service
United States Department of Agriculture
1400 Independence Ave. SW
Washington, D.C. 20250

Reykjavík, 08 February 2019
Ref: 1808350

Subject: Iceland´s response to FSIS draft final report of the audit in Iceland in 2018, Iceland's meat inspection system.

Government Oversight (e.g., Organization and Administration)

The Central Competent Authority (CCA) allows government inspection personnel to issue an export certificate for product intended for export to the United States before test results are known for samples taken in the CCA's chemical residue program.

Corrective action: The Icelandic Food and Veterinary Authority (IFVA) will ensure that meat, which residue samples have been taken from, will not be exported to the United States before the results are known. The IFVA will ensure it by marking each sampled carcass with a tag or a special label indicating that it is not to be exported to the US before results arrive. The applicable SOP´s will be updated to reflect this. This corrective action will be in force before next season (before 1. august 2019).

Government Statutory Authority and Food Safety and Other Consumer Protection Regulations (e.g., Inspection System Operation, Product Standards and Labelling, and Humane Handling)

The CCA provides inadequate oversight of government in-plant inspection personnel (IIP) at establishments that are certified to export to the United States. The FSIS auditors identified the following:

- In one of two audited establishments, the IIP were not conducting pre-operational sanitation verification activities in the fabrication and packaging room.

Corrective action: The IFVA will ensure, for the next lamb slaughtering season in the year 2019, that the Official Veterinarians (OV) in both slaughterhouses, exporting meat to the USA, will conduct pre-operational sanitation, in the fabrication and packaging room, at least once per week. The IFVA will achieve this corrective action by:

- ✓ updating the applicable training material which will result in better training and awareness of the OV´s at the start of each slaughtering season and
- ✓ by verification on-site by DVO and/or veterinary officer of meat inspection on behalf of IFVA .

- In one of two audited establishments, the IIP were conducting zero-tolerance verification tasks at the final carcass inspection station prior to where the establishment was conducting their zero-tolerance monitoring.

Corrective action: Corrective action has already taken place and did so, before the end of the slaughtering season in 2018. The OV´s at the establishment were conducting Zero-tolerance checks at the same station as the establishment the last few days of last season. A special form was designed for this purpose and registrations covering the verification of zero tolerance the last four days are enclosed in attachment # 1 under the name „ Zero tolerance " for 23., 24., 25. and 26. of October.
For next season the form will be in used in both establishments in the slaughtering season of 2019. The desired state of the IFVA is to I move the OV´s point of post mortem inspection at the slaughter line to maintain a 100% zero-tolerance verification and will be its future goal in each slaughterhouse.

- In one of two audited establishments, the IIP were not consistently documenting that sanitation and HACCP verification tasks were completed on the official inspection Daily Control in Slaughterhouses form, as required by the CCA guidelines.

Corrective action: The IFVA will achieve this corrective action by updating the applicable training material which will result in better training and awareness of the OV´s. The future training of the OV´s will thus include the necessity of corrective documentation of the sanitation and HACCP verification (according to the Daily Control in Slaughterhouses form). The training will be followed up by on-site verification and endorsement either by the District Veterinary Officers, the Official Veterinarians (employed on a permanent basis) or the Veterinary Officer of Meat Inspection. This action will come into force before next season (1. August 2019 at the latest)

Government Microbiological Testing Programs

- The CCA provides inadequate oversight of Iceland's government laboratory. The laboratory did not follow procedures for monitoring testing media; for example, the laboratory's only sheep species identification test kit had expired in August 2017.

Corrective action: The IFVA has already, in the slaughtering season of 2018, made corrective actions by sending the rest of the sheep species identification samples to another laboratory (Matís). The IFVA orders a test kit from Matís which is used to take the samples and then the samples are sent to Matís for analysis. An agreement will be made with Matís for future testing requiring Matís to ensure that approved test methods are used for analysis. Enclosed are three test results from Matís that are already available marked as attachment #2.

Yours Sincerely
on behalf of MAST

_____

Ágústa R. Jónsdóttir
Office of legal affairs and coordination

List of attachments:

Attachment # 1:

„Zero tolerance 23. okt front page“
„Zero tolerance 23. okt back page“
„Zero tolerance 24. okt front page“
„Zero tolerance 24. okt back page“
„Zero tolerance 25. okt front page“
„Zero tolerance 25. okt back page“
„Zero tolerance 26. okt both pages“

Attachment # 2:

„Rannsóknarniðurstöður_Mast_Tegundagreining_A081_09.10.18“.
„Rannsóknarniðurstöður_Mast_Tegundagreining_A081_011118“.
„Rannsóknarniðurstöður_Mast_Tegundagreining_SKVH“.

Zero Tolerance Sannprófun / Verification

Verklag / Procedure

Eftirlitsdýralæknar sem sinna eftirliti í sauðfjársláturhúsum með útflutningsleyfi á Bandaríkjamarkað skulu framkvæma sannprófun á gæðaeftirliti sláturhúsanna á 'Zero Tolerance' varðandi mengun á skrokkum eftir snyrtingu en fyrir skolun. 'Zero Tolerance' merkir algjört umburðarleysi gagnvart sjáanlegri mengun á skrokkum. Sannprófunin skal fara fram a.m.k. tvisvar sinnum á dag á sama stað og gæðaeftirlit sláturhússins fer fram. /

Official veterinarians doing inspections at sheep slaughterhouses that have export permit to the United States of America, shall carry out verification on the quality management's control of 'Zero Tolerance' regarding contamination on carcasses after trimming and before washing. 'Zero Tolerance' means total intolerance for visible contamination on the carcasses. The verification shall take place at least twice a day in the same spot as the slaughterhouse's quality control.

1. Sannprófun framkvæmd kl. _____ ***/ Verification carried out at*** 11.00 ***o'clock***

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

EYÐUBLAÐ
Sérmarkaðskrafa USA

Zero Tolerance Sannprófun / Verification

Matvælastofnun

2. Sannprófun framkvæmd kl. _____ / Verification carried out at 15.00 o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

3. Sannprófun framkvæmd kl. _____ / Verification carried out at 16.30 o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

23.10.2018.

Dagsetning / Date

Undirskrift eftirlitsdýralæknis / Official veterinarian´s signiture

EYÐUBLAÐ
Sérmarkaðskrafa USA

Zero Tolerance Sannprófun / Verification

Matvælastofnun

Verklag / Procedure

Eftirlitsdýralæknar sem sinna eftirliti í sauðfjársláturhúsum með útflutningsleyfi á Bandaríkjamarkað skulu framkvæma sannprófun á gæðaeftirliti sláturhúsanna á ´Zero Tolerance' varðandi mengun á skrokkum eftir snyrtingu en fyrir skolun. ´Zero Tolerance' merkir algjört umburðarleysi gagnvart sjáanlegri mengun á skrokkum. Sannprófunin skal fara fram a.m.k. tvisvar sinnum á dag á sama stað og gæðaeftirlit sláturhússins fer fram. /

Official veterinarians doing inspections at sheep slaughterhouses that have export permit to the United States of America, shall carry out verification on the quality management´s control of ´Zero Tolerance' regarding contamination on carcasses after trimming and before washing. ´Zero Tolerance' means total intolerance for visible contamination on the carcasses. The verification shall take place at least twice a day in the same spot as the slaughterhouse´s quality control.

1. Sannprófun framkvæmd kl. _____ / Verification carried out at 11.00 o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta □ Saur / Faeces □ Mjólk / Milk □ Þvag / Urine □	
2)	Engin mengun / No contamination ☑ Gor / Ingesta □ Saur / Faeces □ Mjólk / Milk □ Þvag / Urine □	
3)	Engin mengun / No contamination ☑ Gor / Ingesta □ Saur / Faeces □ Mjólk / Milk □ Þvag / Urine □	
4)	Engin mengun / No contamination ☑ Gor / Ingesta □ Saur / Faeces □ Mjólk / Milk □ Þvag / Urine □	
5)	Engin mengun / No contamination ☑ Gor / Ingesta □ Saur / Faeces □ Mjólk / Milk □ Þvag / Urine □	

EYÐUBLAÐ
Sérmarkaðskrafa USA
Zero Tolerance Sannprófun / Verification

Matvælastofnun

2. Sannprófun framkvæmd kl. _____ / Verification carried out at 15⁰⁰ o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

3. Sannprófun framkvæmd kl. _____ / Verification carried out at 16⁰⁰ o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

24.10.2018.

Dagsetning / Date

Undirskrift eftirlitsdýralæknis / Official veterinarian´s signiture

EYÐUBLAÐ
Sérmarkaðskrafa USA

Zero Tolerance Sannprófun / Verification

Verklag / Procedure

Eftirlitsdýralæknar sem sinna eftirliti í sauðfjársláturhúsum með útflutningsleyfi á Bandaríkjamarkað skulu framkvæma sannprófun á gæðaeftirliti sláturhúsanna á 'Zero Tolerance' varðandi mengun á skrokkum eftir snyrtingu en fyrir skolun. 'Zero Tolerance' merkir algjört umburðarleysi gagnvart sjáanlegri mengun á skrokkum. Sannprófunin skal fara fram a.m.k. tvisvar sinnum á dag á sama stað og gæðaeftirlit sláturhússins fer fram. /

Official veterinarians doing inspections at sheep slaughterhouses that have export permit to the United States of America, shall carry out verification on the quality management's control of 'Zero Tolerance' regarding contamination on carcasses after trimming and before washing. 'Zero Tolerance' means total intolerance for visible contamination on the carcasses. The verification shall take place at least twice a day in the same spot as the slaughterhouse's quality control.

1. Sannprófun framkvæmd kl. _____ / Verification carried out at 11.00 o'clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

EYÐUBLAÐ
Sérmarkaðskrafa USA
Zero Tolerance Sannprófun / Verification

MAST Matvælastofnun

2. Sannprófun framkvæmd kl. _____ / Verification carried out at 15.00 o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

3. Sannprófun framkvæmd kl. _____ / Verification carried out at 16.30 o´clock

Skrokkanúmer / Carcass number:	***Mengunarvaldur / Source of contamination:***	**Viðbrögð við frávikum / Corrective action:**
1)	Engin mengun / No contamination ☐ Gor / Ingesta ☑ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	Trimming.
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

25.10.2018.

Dagsetning / Date

MAST Matvælastofnun

Undirskrift eftirlitsdýralæknis / Official veterinarian´s signiture

EYÐUBLAÐ
Sérmarkaðskrafa USA
Zero Tolerance Sannprófun / Verification

Verklag / Procedure

Eftirlitsdýralæknar sem sinna eftirliti í sauðfjárslátturhúsum með útflutningsleyfi á Bandaríkjamarkað skulu framkvæma sannprófun á gæðaeftirliti sláturhúsanna á 'Zero Tolerance' varðandi mengun á skrokkum eftir snyrtingu en fyrir skolun. 'Zero Tolerance' merkir algjört umburðarleysi gagnvart sjáanlegri mengun á skrokkum. Sannprófunin skal fara fram a.m.k. tvisvar sinnum á dag á sama stað og gæðaeftirlit sláturhússins fer fram. /

Official veterinarians doing inspections at sheep slaughterhouses that have export permit to the United States of America, shall carry out verification on the quality management's control of 'Zero Tolerance' regarding contamination on carcasses after trimming and before washing. 'Zero Tolerance' means total intolerance for visible contamination on the carcasses. The verification shall take place at least twice a day in the same spot as the slaughterhouse's quality control.

1. Sannprófun framkvæmd kl. _____ / Verification carried out at 08.30 *o'clock*

Skrokkanúmer / Carcass number:	*Mengunarvaldur / Source of contamination:*	*Viðbrögð við frávikum / Corrective action:*
1)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☑ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

EYÐUBLAÐ
Sérmarkaðskrafa USA
Zero Tolerance Sannprófun / Verification

2. Sannprófun framkvæmd kl. _____ / Verification carried out at _____ o'clock

Skrokkanúmer / Carcass number:	*Mengunarvaldur / Source of contamination:*	*Viðbrögð við frávikum / Corrective action:*
1)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

3. Sannprófun framkvæmd kl. _____ / Verification carried out at _____ o'clock

Skrokkanúmer / Carcass number:	*Mengunarvaldur / Source of contamination:*	*Viðbrögð við frávikum / Corrective action:*
1)	Engin mengun / No contamination ☐ Gor / Ingesta ☑ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
2)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
3)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
4)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	
5)	Engin mengun / No contamination ☐ Gor / Ingesta ☐ Saur / Faeces ☐ Mjólk / Milk ☐ Þvag / Urine ☐	

26. 10. 2018.
Dagsetning / Date

Undirskrift eftirlitsdýralæknis / Official veterinarian's signature

Reykjavík 12.11.2018

Efni: Rannsóknaniðurstöður á sýni „*Kjöt*" frá Kjötvinnslu SKVH, A022.

Mast
Austurvegi 64
800 Selfoss

Þann 18. okt. 2018 barst erfðafræðideild Matís sýnið af „*Kjöt*" frá Kjötvinnslu SKVH, A022.

Umbeðin rannsókn:
Greina átti af hvaða tegund sýnið „*kjöt*" væri.

Aðferðafræði:
DNA úr sýninu var einangrað með Agowa einangurnaraðferð skv. prótokol.

Cytochrome oxidase subunit I (COI) gen var greint með DNA raðgreiningu. Með samanburði við DNA raðgreiningar í alþjóðlegum gagnagrunnum kom í ljós að sýnið *Kjöt*" sem tekið var, reyndist vera af kind (Ovis aries).

Rannsóknaniðurstaða:
Sýnið „*Kjöt*" frá Kjötvinnslu SKVH, A022, inniheldur kindakjöt.

Steinunn Magnúsdóttir
Sérfræðingur Mæliþjónusta og innviðir
Matís ohf
Vínlandsleið 12
113 Reykjavík

Reykjavík 12.11.2018

Efni: Rannsóknaniðurstöður á sýni af „*vöðva*“ frá Sláturhúsi SS Selfossi, A081.

Mast
Austurvegi 64
800 Selfoss

Þann 01.11.2018 barst erfðafræðideild Matís sýni af „*vöðva*“ frá Sláturhúsi SS Selfossi, A081. Sýnið var tekið 01.11.2018.

Umbeðin rannsókn:
Greina átti af hvaða tegund sýnið „*vöðvi*“ væri.

Aðferðafræði:
DNA úr sýninu var einangrað með Agowa einangurnaraðferð skv. prótokol.

Cytochrome oxidase subunit I (COI) gen var greint með DNA raðgreiningu. Með samanburði við DNA raðgreiningar í alþjóðlegum gagnagrunnum kom í ljós að sýnið „*vöðvi*“ frá Sláturhúsi A081, reyndist vera af kind (Ovis aries).

Rannsóknaniðurstaða:
Sýnið „*vöðvi*“ frá Sláturhúsi SS Selfossi, A081, inniheldur kindakjöt.

Steinunn Magnúsdóttir
Sérfræðingur Mæliþjónusta og innviðir
Matís ohf
Vínlandsleið 12
113 Reykjavík

Reykjavík 12.11.2018

Efni: Rannsóknaniðurstöður á sýninu „*Kjöt*“ frá Sláturhúsi, A081.

Mast
Austurvegi 64
800 Selfoss

Þann 9. okt. 2018 barst erfðafræðideild Matís sýni „*Kjöt*“ frá Sláturhúsi, A081.

Umbeðin rannsókn:
Greina átti af hvaða tegund sýnið „*Kjöt*“ væri.

Aðferðafræði:
DNA úr sýninu var einangrað með Agowa einangurnaraðferð skv. prótokol.

Cytochrome oxidase subunit I (COI) gen var greint með DNA raðgreiningu. Með samanburði við DNA raðgreiningar í alþjóðlegum gagnagrunnum kom í ljós að sýnið „Kjöt“ sem tekið var, reyndist vera af kind (Ovis aries).

Rannsóknaniðurstaða:
Sýnið „Kjöt“ frá Sláturhúsi, A081, inniheldur kindakjöt .

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