USDA NEW POULTRY INSPECTION SYSTEM: WHAT ARE THE MAJOR ISSUES?

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Introduction

Based on an Executive Order (E. O. 13563) issued by President Obama in January 2011, U.S federal regulatory agencies were requested to review and appropriately change regulations that may be outdated, inadequate, ineffective, or burdensome. In this respect, the United States Department of Agriculture, Food Safety and Inspection Service (FSIS) reviewed the then current poultry inspection regulations and on January 27, 2012, FSIS published a proposed a rule "*Modernization of Poultry Slaughter Inspection*". This proposed rule describes a new inspection system to modernize poultry slaughter inspection for young chicken and turkey slaughter facilities. The final rule which will be the focus of this writing, is a representation of the proposed rule with modifications based on stakeholders' comments at publically held meetings (via Web conference) with FSIS and that agency's national Advisory Committee on Meat and Poultry Inspection (NACMPI). The final rule establishes a New Poultry Inspection System (NPIS) that governs the operations of slaughter facilities for young chicken and turkeys.

What will not be affected by NPIS

Contrary to certain information in the proposed rule, the NPIS will not replace any of the following current inspection systems: i) Streamlined Inspection System (SIS), ii) New Line Speed Inspection System (NELS) or iii) the New Turkey Inspection System (NTIS). Facilities slaughtering young chicken and turkeys may continue operating under SIS, NELS, NTIS or Traditional Inspection (with certain modifications from the final rule) or choose to operate under NPIS.

Facilities that slaughter poultry other that young chicken and turkeys may not operate under NPIS unless they receive a waiver under the *Salmonella* Initiative Program (SIP).

The FSIS will not be restricting the amount of on-line inspectors in Traditional Inspection to two as stated in the proposed rule. In fact, FSIS will maintain the current number of on-line inspectors in slaughter facilities that choose not to operate under NPIS.

The major aims of the final rule are to facilitate reduction of pathogens in poultry products, increase the effectiveness of poultry slaughter inspection, optimize the use of FSIS resources, and eliminate regulations that hinder innovations.

To facilitate pathogen reduction in poultry products, the NPIS allows for more efficient on-line carcass inspection while permitting inspectors to focus more on off-line inspection activities that are more effective in ensuring the safety of poultry products. This shift in the FSIS resources is justified by data derived from FSIS's Hazard Analysis Critical Control Points (HACCP)-based Inspection Models Project (HIMP) pilot study. The data indicate that off-line inspection activities directly linked to food safety result provide: i) better compliance with sanitation and HACCP regulations, ii) poultry carcasses with less visible fecal material and lower *Salmonella* contamination levels.

Major issues in the New Poultry Inspection System

The major issues in the NPIS include: i) Requirement for slaughter facility personnel to first sort poultry carcasses and remove unacceptable carcasses and parts before the birds are inspected by the FSIS carcass inspector, ii) a shift in FSIS resources to more off-line inspection activities that can better ensure food safety, iii) authorization for facilities slaughtering young chickens to operate at a maximum line speed of 140 birds per minute (BPM) as long as process control is maintained, iv) slaughter facility's maintenance of records to document that their poultry products fit the definition of ready-to-cook (RTC) poultry, v) changes in regulations for poultry processing facilities, and vi) provision for use of slaughter technologies.

Sorting of poultry carcasses by slaughter facility personnel

In all current poultry inspection systems, every carcass and its viscera are visually inspected by FSIS on-line inspectors positioned at fixed locations along the evisceration line immediately after the viscera is pulled out from the carcass. The on-line inspectors identify unacceptable carcasses and parts, check carcasses for defects, and direct the assisting facility personnel to perform corrective actions if the defects can be eliminated by trimming or reprocessing. For slaughter facilities operating under the NPIS, employees are responsible for sorting, washing and trimming carcasses that are then presented to CIs. This important involvement of employees allows CIs to carry out more efficient and effective on-line inspection of carcasses. The CIs perform continuous visual inspection of each carcass at a location immediately before the chiller. One carcass inspector (CI) and one verification inspector (VI) are positioned at each evisceration line. Those inspectors serve different but complimentary roles (as previously mentioned) in ensuring the wholesomeness and safety of poultry products exiting the slaughter line.

FSIS focus on off-line inspection activities

The NPIS places greater emphasis on off-line inspection activities that are related to food safety. FSIS VIs perform off-line inspection activities such as monitoring and evaluating the facility's process controls, verifying the facility's compliance with sanitation standard operation procedures, sanitation performance standards, and HACCP regulatory requirements. They also perform verification checks on whole carcass samples collected before the CI checkpoint. These verification checks are made to ensure that the slaughter facility's personnel are effectively sorting the poultry products and that those products comply with FSIS zero visible fecal tolerance standard and other performance standards.

FSIS authorization of maximum line speed

The Traditional Inspection system involving FSIS inspectors performing the time-consuming process of sorting carcasses substantially limit line speeds. In Traditional Inspection the maximum line speeds for chicken (64 bpm with 4 on-line inspectors) and turkey (39 bpm with 3 on-line inspectors) are based on time to facilitate effective identification of visible defects and animal diseases. Those line speeds, which are slower than line speeds stated for SIS, NELS, and NTIS are now irrelevant considering that detecting visible trim and dressing defects are of far lesser importance to food safety. Also, substantial improvements have been made to control or eradicate many animal diseases that were more prevalent and were of greater public health concern when the traditional inspection system was established. More importantly, current line speeds in Traditional Inspection may be an impediment to optimal production especially if poultry slaughter facilities can show that they can produce safe, wholesome, unadulterated products at more efficient rates of production. In this regard, FSIS believes that maintaining limits on current line speeds can decrease the incentive for processors to improve their processing methods and develop technologies for increased efficiency of slaughter and dressing.

Since 2007, facilities that slaughter young chickens obtained permission to operate at line speeds up to 175 bpm (maximum) provided that they can demonstrate consistent process control. Although they have this permission, most young chicken slaughter facilities do not operate at a line speed of 175 bpm. In fact data collected from the HIMP pilot study indicate that the average line speeds in HIMP facilities is 131 bpm. Under the NPIS the fastest line speed authorized is 140 bpm and not 175 bpm as permitted under HIMP.

Documentation that poultry products fit the definition of ready-to-cook poultry

The current poultry slaughter inspection system involves, apart from online inspection, re-inspections performed by off-line inspectors. In performing re-inspection of carcasses the inspectors apply several trim and processing standards to verify that the processor is maintaining the slaughter and evisceration process under control. Those standards are called Finished Product Standards (FPS). To determine compliance with FPS, off-line inspectors would examine sample sets (10 carcasses per set) to ensure that all trim defects such as bruises, breast blisters, and scabs, are removed. The FSIS has proposed to get rid of the current FPS. Under the NPIS those standards are now replaced with a requirement that facilities operating under this new system, document that poultry products of their slaughter operations meet the definition of ready-to-cook poultry (RTC) as stated in FSIS regulations. All poultry slaughter facilities

Changes in regulations for all poultry processing facilities

Apart from the NPIS the final rule mandates that all poultry slaughter facilities develop, implement, and maintain written procedures to make sure that carcasses with fecal contamination do not enter the chiller. Also these procedures must be incorporated into the facilities/ HACCP plans, sanitation standard operating procedures (SSOP), or other prerequisite programs. Also, slaughter facilities must develop, implement, and

maintain written procedures to ensure that they prevent microbial contamination of carcasses and parts by human enteric pathogens such as *Salmonella* and *Campylobacter*, and fecal matter during the whole slaughter and dressing process. Those written procedures should also be maintained as part of the facilities' HACCP plans, or sanitation SOPs, or GMPs. Those procedures should at least include sampling and analysis for microorganisms at pre- and post-chill points in the process. This is important for poultry processors to monitor process control for enteric pathogens. FSIS no longer requires poultry slaughter facilities to test carcasses for generic Escherichia coli for monitoring process control. The previously mentioned testing requirements will replace the generic *E. coli* regulations.

Provision for use of slaughter technologies

The FSIS has changed some of its regulations to allow the use of certain poultry slaughter technologies that have been proven to be successful in reducing the incidence of pathogens on poultry carcasses. The agency has removed the prescribed time and temperature chilling parameters for ready-to-cook poultry. In place of these parameters, FSIS requires that poultry facilities incorporate carcass chilling procedures into their HACCP plans, or sanitation SOPs, or GMPs. FSIS believes that this provides greater flexibility for processors to adopt a chilling process that is most effective in preventing growth of pathogens on carcasses just after the slaughter operations.

The FSIS is now allowing poultry slaughter facilities to: i) utilize approved antimicrobial systems for online reprocessing of poultry carcasses or ii) use chlorinated water (20 to 50 ppm available chlorine) or other antimicrobials that are suitable and approved for poultry reprocessing. Processors are required to state, in their HACCP plans or sanitation SOPs, or GMPs, the antimicrobial methods which they use for online or offline reprocessing of poultry.

Summary

The FSIS has now implemented a new inspection system for poultry facilities that slaughter young chickens and turkeys. This new inspection system is intended to facilitate reduction of pathogens in poultry products, increase the effectiveness of poultry slaughter inspection, optimize the use of FSIS resources, and eliminate regulations that hinder innovations. This new inspection system does not replace the existing Streamlined Inspection System, the New line Speed Inspection System, and the New Turkey Inspection System. In this regard, poultry slaughter facilities may choose to remain in operation under those inspection systems. Overall, the new inspection system requires workers at poultry processing facilities to sort poultry carcasses and select only those carcasses that seem eligible to pass inspection. In this regard, FSIS now allocates fewer inspectors to work online while placing inspection personnel to concentrate on more important off-line food safety activities. This in turn has good potential to result in: i) increased production efficiency of the slaughter and dressing process, ii) reduction of pathogen populations in poultry products, iii) more efficient use of FSIS inspection personnel resources and iv) industry innovations in poultry processing.

References

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