

July 22, 1998

HACCP-Based Inspection Models Project: Diseases and Conditions Observable in Meat and Poultry

Background

In a June 10, 1997, Federal Register notice, the Food Safety and Inspection Service (FSIS) requested public comments on the design and development of new inspection models for slaughter and processing in a Hazard Analysis and Critical Control Point (HACCP) environment (62 FR 31553). In a section discussing the need to reform the meat and poultry inspection program, the notice summarized recommendations by the National Academy of Sciences and the General Accounting Office that FSIS reduce its reliance on organoleptic inspection, shift to prevention-oriented inspection systems based on risk assessment, and redeploy its resources in a manner that better protects the public from foodborne diseases. FSIS will study how to bring about such inspection changes and resource redeployments during its HACCP-Based Inspection Models project. A June 24-25, 1997, public meeting, which the notice announced, provided a forum for dialogue between FSIS and all parties interested in the project. The project has been discussed in meetings of the National Advisory Committee on Meat and Poultry Inspection and in other forums.

Establishments volunteering to participate in the HACCP-Based Inspection Models project will carry out activities relating to food safety and other consumer-protection matters. FSIS will conduct activities aimed at improving inspection-system compatibility with the Pathogen Reduction/HACCP regulations. FSIS will develop inspection models in which slaughter process control is an industry responsibility under FSIS oversight and verification.

One step in the development of these inspection models is that of distinguishing, at post-mortem, animal diseases and conditions that are food-safety hazards from diseases and conditions that are objectionable for other reasons. This document reflects the current FSIS view of that distinction. In the course of the inspection models project, the volunteer establishments will decide how best to verify the removal from the food supply of carcasses or parts affected by these diseases and conditions and FSIS will decide how best to verify their removal. These decisions will depend partially on a consideration of this document.

Please submit written comments on this document to Ms. Patricia Stolfa, Assistant Deputy Administrator, Office of Policy, Program Development and Evaluation, Room 402 Cotton Annex, 300 12th Street SW, Washington, DC 20250-3700. Comments may also be provided by facsimile (202-401-1760).

HACCP-Based Inspection Models Project: Food-Safety-Related and Other Diseases and Conditions Observable at Post-Mortem

Volunteer establishments will conduct a pathological and anatomical examination of each carcass while FSIS oversees and verifies the establishments' process controls. Livestock and poultry diseases and conditions identified at post-mortem are categorized according to their food-

safety or other consumer-protection significance. Diseases and conditions likely to present a meat- or poultry-borne hazard to public health are considered food-safety hazards. Diseases and conditions having other consumer-protection significance are defects that rarely or never present a direct public health risk, but that are unacceptable components of meat and poultry products. Diseases and conditions in both categories are to be removed from the human food supply. Establishments will consider food-safety-related diseases and conditions for inclusion in their HACCP plans.

Part I – Diseases and Conditions that Affect Food Safety

Food Safety Hazards

FSIS has identified two general post-mortem food-safety categories: (1) Infectious Conditions and (2) Contamination. Food-safety-related infectious conditions and contamination are identified organoleptically, that is, by using the senses, and are presumed to contain infectious agents (bacteria, virus, rickettsia, fungus, protozoa or helminth organisms) that may cause a food to be unsafe for human consumption *and* that are likely to be transmitted through meat and poultry. Examples of diseases and conditions in each category are listed below.

(1) Infectious Conditions that Affect Food Safety

- (i) localized – remove lesion(s) and pass unaffected carcass portions
- (ii) generalized – condemn or treat to render non-infective

Examples:

Abscess: A localized collection of pus.

*Cysticercus bovis**: The larval form of *Taenia saginata*. Any single cysticercus indicates generalized infection.

*Cysticercus cellulosae**: The larval form of *Taenia solium*. Any single cysticercus indicates generalized infection.

Mycobacterium bovis (included to support eradication surveillance).

Pyemia: Septicemia associated with multiple abscesses arising from vascular dissemination of pyogenic organisms.

Septicemia: Systemic disease associated with the presence and persistence of pathogenic organisms in the bloodstream.

Toxemia: Systemic disease associated with bacterial products (toxins) in the bloodstream.

(2) Contamination – prevent or remove in accordance with establishment HACCP plan

Examples:

Fecal material

Milk (livestock)

Ingesta (livestock)

* Dependent on other elements in the HACCP plan. On-farm production records demonstrating no cysticercosis in a herd may obviate the need for cysticercosis in the slaughter component of the HACCP plan.

Part II – Diseases and Conditions with Consumer-Protection Implications Not Related to Food Safety

FSIS has identified four general categories of diseases and conditions that affect consumer protection because they adulterate products but that are not food-safety hazards. The categories and examples of diseases and conditions are listed below.

(1) Animal infectious conditions. Animal infectious conditions contain infectious agents that do not render foods unsafe to humans or are unlikely to be transmitted to humans.

- (i) localized – remove lesion(s) and pass unaffected carcass portions
- (ii) generalized – condemn or treat to render non-infective

Examples:

Actinomycosis
Actinobacillosis
Airsacculitis
Arthritis – infectious
Ascariasis
Caseous lymphadenitis
Coccidioidal granuloma
Cysticercus ovis
Cysticercus tenuicollis
Erysipelas
Fascioliasis
Infectious process
Mastitis
Metritis
Mycobacterium avium
Nephritis, pyelitis
Osteomyelitis
Pericarditis
Peritonitis
Pleuritis
Pneumonia
Synovitis

(2) Neoplasia (tumors)

- (i) localized –remove localized lesion(s) and pass unaffected carcass portions
- (ii) metastatic – condemn

Examples:

Carcinoma
Epithelioma
Lymphoma
Sarcoma

(3) Pigmentary, metabolic, degenerative conditions

- (i) localized –remove localized lesion(s) and pass unaffected carcass portions
- (ii) generalized – condemn

Examples:

Anasarca
Anemia
Arthritis – degenerative
Ascites
Emaciation
Eosinophilic myositis
Icterus
Melanosis
Sawdust liver
Telangiectasia
Uremia
Xanthosis

(4) Miscellaneous

- (i) localized –remove localized lesion(s) and pass unaffected carcass portions
- (ii) generalized – condemn

Examples:

Bruises
Cadaver — always considered generalized
Fetus — always condemned
Fractures
Overscald

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