

Carcass Cooling Standards for Red Meat and Poultry

I. Objective of Proposal

The objective of the proposed carcass-cooling requirements as a near-term measure in the Pathogen Reduction/HACCP proposed rule is to ensure that establishments effectively control the growth of pathogens on meat and poultry carcasses.

II. Description of Comments

Commenters generally supported the need for slaughter plants to chill carcasses as a means of minimizing the growth of harmful bacteria, but some commenters questioned the need for any new near-term regulatory requirements for carcass cooling. These commenters recommended instead that plants address carcass cooling as part of their HACCP plan at the time they implement HACCP. Some commenters opposed the "command and control" nature of the proposed requirements and said that relying instead on the incorporation of time and temperature controls in a plant's HACCP plan would provide maximum flexibility to adopt controls consonant with different products and environments.

Some commenters raised concerns about the specific time and temperature requirements in the proposed rule. Other comments included the pros and cons of surface versus internal temperatures as indicators of coldness. Some commenters supported the time and temperature requirements as proposed, noting that these controls are designed to minimize the potential multiplication of bacterial pathogens in carcasses and raw meat products and thus reduce consumer exposure to pathogenic bacteria. Some pointed out that the technology is available and generally being used in plants and that, furthermore, the proposed time and temperature controls are generally being adhered to by many establishments and therefore should not be an overwhelming burden. These commenters stated that the cooling rate proposed by FSIS is based on the best estimate of what is needed to minimize multiplication of pathogenic organisms and what is achievable in a well-controlled meat and poultry establishment.

Some commenters raised concerns about not having the cooling capacity to comply with the proposal and about the prohibitive cost of obtaining the necessary refrigeration equipment. Commenters advocated more realistic requirements that take into consideration plant/product variety, different processing operations, and diverse shipping and receiving norms. Commenters raised questions about disposition of product that did not meet temperature requirements.

Some commenters expressed concern about health problems that could result among their employees from working in a cold environment. Comments related to

worker comfort and safety cited studies that concluded many human physical ailments are created or aggravated by cold temperatures. Worker safety was also cited as an issue on the ground that the difficulty of handling and cutting meat at such cold temperatures increases the potential for accidents.

III. FSIS' Current Thinking on Issues Raised by Comments

FSIS considers carcass cooling to control growth of pathogens to be a basic element of a safe food production process. Poultry slaughter plants are currently subject to an FSIS directive on carcass cooling, and many beef slaughter plants take appropriate measures to cool carcasses. FSIS continues to believe there is a need before and after implementation of HACCP for the establishment of some basic standards that can be used to ensure all plants meet carcass cooling standards.

FSIS recognizes the need to take a practical approach that acknowledges the diversity of production practices affected by carcass cooling requirements. FSIS is considering more flexible alternatives to the time and temperature requirements in the proposed rule, including adoption of pathogen growth performance standards (see options below).

FSIS acknowledges the need for clarification of product disposition options for product that does not meet carcass cooling requirements. This remains under consideration.

IV. Options for Change

In addition to the currently proposed requirements, FSIS is considering the following options:

- Maintain the proposed requirements but raise the 40°F criterion to the highest level that would maintain the pathogen control objective and address at least some concerns about worker comfort and safety and equipment costs. The European Union, for example uses a 44.6°F standard for red meat to control pathogens during slaughter operations.
- Establish a carcass cooling performance standard expressed as a maximum acceptable level of pathogen growth.
- Rely on microbiological targets, such as the proposed interim targets for pathogen reduction, as performance standards, monitored by periodic microbial testing, and have no specified cooling requirements. This option would provide establishments flexibility to use carcass cooling methods that meet their own needs as long as they meet the end product performance standard.

Antimicrobial Treatments in Slaughter Plants

I. Objective of Proposal

The objective of the proposal in the Pathogen Reduction/HACCP proposed rule, to require the application of at least one effective antimicrobial treatment in slaughter plants, is to establish a minimum standard of care regarding the use of available technology to reduce pathogens on carcasses leaving slaughter plants and to gain a net reduction in the occurrence of pathogens on carcasses in the near term, while HACCP is being implemented.

II. Description of Comments

Some commenters supported the proposal to mandate the use of at least one antimicrobial treatment, subject to reservations concerning the effectiveness of the available treatments for specific pathogens, the possibility of cross-contamination, and the need to maintain careful, hygienic slaughter practices.

Some commenters opposed the proposed antimicrobial treatments, raising concerns about the "command and control" nature of the proposal and the lack of sufficient empirical data to justify mandatory antimicrobial treatments.

To alter the "command and control" nature of the proposal, some commenters recommended eliminating the formal approval process for antimicrobial treatments and allowing any treatment that meets stated conditions (such as, "meets a pathogen reduction standard," "does not adulterate product, create insanitary conditions, or result in misbranded product.") Other suggestions included accepting irradiation and salt as antimicrobial alternatives. Some commenters stated that use of antimicrobial treatments should be a control measure plants consider during HACCP plan development, not before.

Some commenters noted that certain foreign countries do not permit antimicrobial treatment of meat and poultry products. Acknowledging the proposed exemption for exported product included in the proposed rule, commenters still expressed concern that it was impractical for a slaughter operation to separate domestic and export product.

III. FSIS' Current Thinking on Issues Raised by Comments

FSIS continues to believe antimicrobial treatments in many slaughter plants play an important role in a pathogen reduction strategy. FSIS is reconsidering whether the proposed across-the-board mandate is the optimal approach to fostering adoption of appropriate antimicrobial technologies or whether more flexible alternatives,

including reliance on end-product performance standards, would be equally or more effective

IV. Options for Change

FSIS is considering the following possible alternatives to the proposed antimicrobial treatment requirements:

- Adopt the near-term requirement for slaughter establishments to apply an antimicrobial treatment to meat and poultry carcasses, with modification of some technical details (such as timing application, and proposed requirements for ensuring the efficacy of specific treatments).
- Adopt the near-term requirement for slaughter establishments to apply an antimicrobial treatment to meat and poultry carcasses, with modification of technical details (such as timing application, and proposed requirements for ensuring the efficacy of specific treatments), but add an exemption option for plants that can demonstrate near-term compliance with process control and/or pathogen reduction performance standards.
- Do not require establishments to apply an antimicrobial treatment to meat and poultry carcasses, but rely instead on appropriate identified performance standards and microbial testing for generic E.coli, Salmonella or other pathogens as an incentive to maintain good sanitation and hygienic slaughter practices and to adopt technologies appropriate for achieving standards in particular plants.