



If it affects you or the meat industry, you'll read about it in the...

AAMPALIFIER

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FSIS Calls For HACCP Plan Reassessment...But What Does It All Mean?

As the meat industry has made tremendous progress over the years to improve the safety of meat products, problems with *Escherichia coli* O157:H7 contamination continue to plague the meat industry. By now, if you are under United States Department of Agriculture (USDA) inspection and are a beef operation, you have reassessed your HACCP plan(s) to address *E. coli* O157:H7. Beef operations are official establishments that slaughter, fabricate, grind, mechanically tenderize, or enhance by tumbling, massaging, or injecting beef products, such as with marinades.



With a zero-tolerance regulation in place for many years and the entire meat industry striving to make the safest meat products, zero is an unattainable goal and always will be, unless a new technology is discovered which is applicable to the entire meat industry. Scientifically, it is currently not possible to ensure that all ground beef is 100% free of *E. coli* O157:H7. This is a fact of life, but that is not to say that the meat industry cannot implement specific interventions to reduce the occurrence of this harmful pathogen. This new initiative is due to an increase percent positive rate of *E. coli* O157:H7 contamination. The Food Safety Inspection Service (FSIS) set the maximum target percent positive rate at 0.200%. Thus far (10/12/2007), for the calendar year of 2007, the percent positive rate is 0.208%

AAMP can see a disturbing trend that seems to be a huge leap backwards for the meat industry. The system of Hazard Analysis and Critical Control Point (HACCP) was established for the meat industry because end product testing was not resolving food safety concerns. Currently, AAMP has noticed that FSIS is reverting back to increased testing to attempt to solve the problem of *E. coli* O157:H7 contamination in meat products. Increased testing only identifies a potential problem without solving the problem. As AAMP listened in on the FSIS/Industry conference calls, it was obvious that the industry is just as concerned about the increased recalls due to *E. coli* O157:H7 contamination. With that being said, AAMP's membership, along with companies of all sizes, seem to be at a loss for words when it comes to the implementation of more interventions to eliminate contamination. Bottom line...FSIS cannot test its way to zero contamination.

In September of 2002, FSIS published a document titled "*Guidance for Beef Grinders and Suppliers of Boneless Beef and Trim Products.*" Currently, FSIS is strongly recommending the meat industry utilize more of the best practices outlined within this document. Unfortunately, a majority of the best practices listed are specifically geared toward the larger meat processing companies. This is no secret, and FSIS officials clearly admitted this point and also acknowledged they understand smaller processors, such as the AAMP membership, rely heavily on processors up the production chain to ensure the contamination from *E. coli* O157:H7 has been reduced or eliminated. With that being said, FSIS believes that the meat industry should implement interrelated controls throughout the entire production chain.

If establishments are not using the FSIS-defined best practices, there may not be any scientific documentation available to support the procedures they are currently utilizing within their facility. Third-party audits and increased plant testing are expensive and, in many cases, unreasonable and unnecessary for small and very small plants to do. AAMP is concerned that soon purchase specifications and certificates of analysis will not be adequate or considered acceptable by FSIS.

With all of these compounding factors and the confusion, Jay Wenthner (AAMP's Executive Director) and Andrea Brown (AAMP's Director of Legislative and Regulatory Affairs) met with Dr. Richard Raymond, FSIS Under Secretary for Food Safety; Alfred V. Almanza, FSIS Administrator; and Dr. Daniel Engeljohn, FSIS Deputy Assistant Administrator, Office of Policy, Program, and Employee Development (OPPED). Instead of simply telling you to reassess your HACCP plans, AAMP wanted to specifically know what FSIS expects the very small and small meat processor to do. The meeting was filled with very good dialogue and gave AAMP staff a chance to voice your frustrations with this new initiative.

While the debate rages on about the true meaning of the USDA mark of inspection, there are techniques that can be implemented. Unfortunately, it is not enough for beef grinders and further processors to simply rely on the fact that they are using beef products that have been previously inspected and passed by the USDA. FSIS officials specifically mentioned that the best practice recommendations are just that: recommendations, and not regulation.

The “best practices” identified by FSIS tie the following together as interrelated controls:

1. At least one slaughter intervention that is controlled by a CCP;
2. N-60 testing of all production lots of outgoing source material intended for ground beef product;
3. Quarterly testing of incoming source material from each supplier and with greater frequency in high prevalence season months; and
4. At least monthly testing of finished ground beef product.



Again, remember that these best practices were developed and geared toward the larger processor. Some of these best practices may not be feasible for your operation.

We voiced concern that this new FSIS initiative would cause the large meat industry, specifically the suppliers of beef trim, to increase their usage of restriction labeling tactics. This would be very detrimental for the very small and small meat industry because it limits what products are available for grinders, and attempts to put responsibility on processors further down the production chain. FSIS is closely monitoring this issue and is limiting the use of such labeling tactics. FSIS officials acknowledged the fact that very small and small processors have very limited, if any, access to certificates of analysis (COAs). Because small and very small establishments typically purchase relatively small quantities of trimmings from large processors, they do not have the wherewithal to obtain additional information or put more strict requirements on their suppliers.

In today's meat production chain and with the use of meat brokers/distributors, it is nearly impossible to retrieve COAs on every (or any) beef product purchased. So how is FSIS working with industry to resolve this issue...FSIS is currently working with large suppliers of beef trim to approve special labeling that clearly identifies that the beef product within the box of meat you have purchased will be labeled with*:

- Product derived from carcasses that had an intervention at slaughter that controlled, reduced, or eliminated *E. coli* O157:H7
- Product lot has been previously tested for *E. coli* O157:H7 and is negative for *E. coli* O157:H7

* **Specific language and label contents may vary by FSIS approval and beef trim supplier.**

From what AAMP understands, this type of label approval is already being pursued by several large suppliers. It is the hope of the Agency to have all beef trim (lots) that is sold on the open market to be tested for *E. coli* O157:H7. This may alleviate the problem of obtaining your annual letters from beef suppliers, which may be difficult at times, especially for small companies.

From some of the phone calls AAMP has received and the analysis performed by FSIS of previous recalls, it is somewhat evident that *less-than-optimal control practices* are in place across the meat industry. FSIS is not pointing the finger at the meat industry as a whole when such statements are made. If you have followed the latest recalls closely, FSIS is more clearly identifying why such contamination has occurred. In the last two recalls to date, FSIS has publicly released who supplied the further processors the contaminated beef. This is further evidence that you should be maintaining very detailed records of the beef trim you are grinding.



FSIS is currently developing a targeted regulatory testing program. A sneak peek into the future reveals Agency theory that operations with production volumes greater than 1,000 pounds daily and with less-than-optimal control practices likely will be targeted more frequently for testing by FSIS than the once per quarterly guideline. Sound familiar? This is similar to the tactic the Agency is following with *Listeria monocytogenes* to be protective of public health.

Out of all the topics discussed in the meeting, we came out with one piece of information that might be the most useful to you. Dr. Engeljohn provided AAMP with a **draft** breakout scheme of targeted testing that could be implemented by small and very small volume fresh beef production establishments. This ongoing verification testing scheme for either source material and/or finished ground beef product can provide a reasonable rationale for demonstrating that the food safety system is being effectively controlled (*NOTE: Supplemental testing in high prevalence season months provides additional public health protection*):

| | |
|------------------------------------|---|
| >250,000 pounds daily | Test more than once per month (>12 times annually) |
| >50,000 but <=250,000 pounds daily | Test at least once every month (12 times annually) |
| >1,000 but <=50,000 pounds daily | Test at least once every 2 nd month (6 times annually) |
| <1,000 pounds daily | Test at least once every 3 rd month (4 times annually) |

This *E. coli* O157:H7 testing structure outlined by FSIS is only a “guideline.” With that being stated, without any other scientific documentation to demonstrate a minimum testing frequency, this is the best guide available.

Some information you should consider...

A HACCP plan reassessment does not always mean that a change must occur. While some inspection personnel may think differently, you are reassessing the adequacy of the plan. If you are doing everything you think you can do (*feasibly and/or financially*), then a change may not be required. When conducting a reassessment, it is recommended that you document the names and titles of the personnel involved with the reassessment, the programs and documents reviewed, and changes made, including the reasons for the changes.

Are you using bench trim (*i.e.*, beef trim generated from the fabrication of beef primal cuts)? If so, what are you doing with those beef trimmings? If you are grinding those particular beef trimmings and selling it as ground beef, you may want to consider randomly testing that ground beef. Remember, that particular trim has essentially never been tested for *E. coli* O157:H7 contamination. If possible, it is strongly recommended that this trim be diverted into a fully-cooked meat product. Then you would not have to be as concerned with *E. coli* O157:H7 contamination because the product would be exposed to a lethality step. Another option would be to accumulate the bench trim until such time as you have enough to make ground beef. This accumulated beef trim would be considered a "lot." If this tactic were to be used, you could implement a random *E. coli* O157:H7 testing program.

Have you considered limiting your exposure to the potential *E. coli* O157:H7 contamination issue? Take a step back and assess how much your ground beef sales actually account for in your annual business income. Does the financial gain outweigh the potential risk of grinding beef? It is not the intention for AAMP or FSIS to recommend that you get out of the ground beef business as a result of this reassessment, but from AAMP's perspective it is a consideration. Let's go one step further...once again, utilize the previous assessment of your annual ground beef sales. Is it possible for you to produce your ground beef under the retail exemption regulation? Under 9 CFR 303.1(d)(2)(iii)(c), "*only federally or State inspected and passed product is handled or used in the preparation of any product.*" Retail exemption requires no further product testing, HACCP, or implementation of FSIS's new initiatives. This does not completely remove you from getting your ground beef tested for *E. coli* O157:H7 contamination because the Agency can still purchase your ground beef product and test it for *E. coli* O157:H7 contamination. According to FSIS' regulations, for calendar year 2007, the dollar limitation (for sales to hotels, restaurants, and similar institutions) for meat and meat food products is \$55,100 and for poultry products is \$44,400. While there are particular limitations (*quantity or product purchased*) of consumer purchases under the retail exemption, essentially no dollar limitations exist (*for the particular limitation refer to 9 CFR 303.1(d)(2)(ii)*)

While AAMP could potentially agree this is not the answer to reduce E.coli O157:H7 contamination, AAMP is at a loss to provide you with fail-safe steps that can be implemented to guarantee with 100% certainty that other USDA establishments will never ship you beef components that could potentially be contaminated with E.coli O157:H7.

Do you have a good ground beef lotting system established? There is a reason why initial recalls from some companies are minor and then explode into multi-million pound recalls. The reason typically includes inappropriate production procedures, poor documentation, and the lack of a defined production lot. Have a clear separation of your lots from day to day (*i.e.*, do not utilize ground beef from one day's production in another day's production, sometimes referred to by the meat industry as back-sloping ground beef).

In an effort to assist you and provide you with more information beyond the basics of FSIS Notice 65-07, AAMP has developed a specific webpage that focuses on the recent *E. coli* O157:H7 HACCP plan reassessment. We have compiled specific documents in one location that you may find useful. The webpage contains Guidelines for Developing Best Practices, AAMPLifier articles published regarding *E. coli* O157:H7 reassessments, a link to HACCP Supporting Documents, the FSIS 65-07 Notice, as well as other pertinent documents. We have also developed some thinking points you should consider before, during, and after your HACCP plan reassessment. The webpage can be found at www.aamp.com/ecolireassessment.asp. A link has also been established on the AAMP homepage (www.aamp.com). If you recall, AAMP addressed this type of reassessment in the February 1, 2007, edition of the AAMPLifier.



AAMP supports FSIS in its mission to ensure food safety and is willing to work with the Agency to take measures that will do so. However, we cautioned FSIS that their new initiatives must be practical and as least burdensome as possible for small and very small establishments. AAMP has always highly recommended that our members utilize best practice documents and remain vigilant in their food safety practices. In conclusion, AAMP is concerned with the future of the ground beef industry as the meat industry strives to produce the safest meat products in the world. It is important to us that the Agency work together hand-in-hand with stakeholders to find solutions to the current problems facing the meat industry and we hope that everyone takes this reassessment seriously.

Antimicrobial Spray Treatments for Very Small Meat Establishments

In the wake of various meat recalls and despite good slaughter practices, contamination of carcasses can occur. Thus the use of effective antimicrobial intervention strategies can prove useful during slaughter operations. Antimicrobial intervention methods are designed to reduce microbial contamination on the carcasses.

Very small meat establishments throughout the United States are required to implement a Hazard Analysis and Critical Control Point (HACCP) plan. These establishments often rely on scientific studies to validate their HACCP plans. However, most of these studies simulate the conditions found in large establishments. Limited space, manpower, and financial resources often make it difficult or impossible to implement certain antimicrobial interventions (for example, automated washing cabinets, steam pasteurization, and steam vacuuming) in very small plants. With financial support from the United States Department of Agriculture (USDA), The Pennsylvania State University worked with Texas Tech University and Washington State University to generate new data that very small establishments can use to effectively remove pathogens from carcass surfaces.



Several food-safe compounds were tested to determine antimicrobial effectiveness and feasibility in a pilot plant setting. Organic acids (lactic, acetic, and citric), peroxyacetic acid, chlorine-based compounds (acidified sodium chlorite, chlorine dioxide, sodium hypochlorite), and ozonated water were applied to inoculated beef surfaces. Populations of *E. coli* O157:H7, *Salmonella Typhimurium*, *Campylobacter* spp., mesophilic aerobic plate count, coliforms, and generic *E. coli* before treatment and after treatment were measured and log reductions calculated. Lactic, acetic, and citric acids were more effective at the broad-spectrum decontamination of beef surfaces than the other compounds tested. Of these three organic acids, lactic acid seemed to be the most user friendly because it has a pleasant odor and is less irritating to the skin than acetic or citric acid.

The following is a step-by-step review of this antimicrobial intervention for carcasses processed in very small establishments:

Step 1

- § Thoroughly wash the carcass with warm water.
- § Wash beef carcasses for at least 2 minutes.
- § Wash other red meat carcasses for at least 1 minute.

Step 2

- § Allow the carcass to drip for 5 minutes.
- § This action improves the effectiveness of the antimicrobial rinse.

Step 3

- § Thoroughly rinse the carcass with an antimicrobial solution such as 2% lactic acid.
- § Rinse beef carcasses for at least 1 minute.
- § Rinse other red meat carcasses for at least 30 seconds.

This supporting document is very user friendly, as well as easy to read and understand. It takes a hurdle approach to the implementation of intervention strategies against potential pathogens. Even if you already have supporting documents within your files to support your current invention, this is an excellent document to include. The report can be downloaded in its entirety from AAMP's website at www.aamp.com. Pennsylvania State University also produced a video that accompanied the report. AAMP has contacted FSIS personnel within the division of small and very small plant outreach and requested this information be made available to the meat industry, as we feel it may be very beneficial to you.

This project was funded by the United States Department of Agriculture (USDA)-Cooperative State Research Education, and Extension Service (CSREES) through the National Integrated Food Safety Initiative.



Website Address: www.aamp.com/ecolireassessment.asp

North America's Largest Meat Trade Organization

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***Escherichia coli* O157:H7 Reassessment Information**



Guidelines For Developing Best Practices

The guidelines are designed to provide a recommended set of practices and procedures that processors may want to adopt in their entirety or in part to ensure optimal quality and food safety. These recommendations illustrate how grinders and suppliers of boneless beef and trim products can implement controls to minimize food safety hazards, such as *E. coli* O157:H7 and *Salmonella* associated with ground beef.

- Guidance For Beef Grinders and Suppliers Of Boneless Beef and Trim Products
- Guidelines For Developing Best Practices For Beef Slaughter
- Guidelines For Handling Vacuum Packed Sub-Primal Beef Cuts
- Guidelines for Pathogen Control During Tenderizing/Enhancing of Whole Muscle Cuts
- Guidelines For Developing Best Practices For Raw Ground Products
- Guidelines for Holding Tested Products

AAMPliifier – February 1, 2007

Article - Are Your Purchase Specifications Adequate To Pass EIAO Scrutiny?

AAMPliifier – November 1, 2007

Article - FSIS Calls For HACCP Plan Reassessment...But What Does It All Mean?

Exemption for Retail Store Operations – Federal Register Docket No. 2007-0009

The Food Safety and Inspection Service (FSIS) announced new dollar limitations on the amount of meat and meat food products and poultry products that a retail store can sell to hotels, restaurants, and similar institutions without disqualifying itself for exemption from Federal inspection requirements.

HACCP Supporting Documents

AAMP has collected numerous documents to help you support the reason why certain critical limits are chosen throughout HACCP plans. These documents are on the Members Only section of the AAMP website.

FSIS Notice 65-07

Notice of Reassessment for *Escherichia coli* O157:H7 Control and Completion of a Checklist for All Beef Operations.

More information can be found on the actual webpage (www.aamp.com/ecolireassessment.asp). A quick link is established on the AAMP homepage (www.aamp.com) to access this information more easily. More information will be posted on the webpage as it becomes available. If you have information that you believe would be helpful to the AAMP membership and could be posted on this webpage, please contact the AAMP staff.



www.aamp.com



www.fsis.usda.gov



www.recalls.gov



www.bifSCO.org



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ESCHERICHIA COLI O157:H7 REASSESSMENT THINKING POINTS

REASSESS BY OCTOBER 26, 2007

- Beef Slaughter HACCP Plan
- Raw, Not Ground (Blade tenderized) HACCP Plan (Beef)
- Raw, Ground HACCP Plan (Beef)

KNOW YOUR OWN PROCESS IN YOUR ESTABLISHMENT

- If you slaughter cattle, have you addressed the potential of *E. coli* O157:H7 contamination?
- Do you have supporting documentation for your *E. coli* O157:H7 intervention(s)?
- Are you doing all of the tasks as outlined in your HACCP plan(s)?
- Are you commingling your trim (*i.e.*, grinding your beef trim components with beef trim components you are shipping in)? If so, are all beef trim components being tested or are you testing the ground product?

INCOMING TRIM

- Do you have purchase specifications (*i.e.*, a letter on file from your beef trim component suppliers)?
- Is your annual purchase specification letter up-to-date?
- Can you get certificates of analysis (COA)?
- Is the beef component labeled with any instructional statement concerning *E. coli* O157:H7 (*i.e.*, "for full lethality treatment" or "for cooking only")?
- Is the beef component labeled with any disclaimer statement concerning *E. coli* O157:H7 (*i.e.*, "product has not been tested for *E. coli* O157:H7")?
- Are you grinding trim or whole muscle cuts?
- Can you limit the number of supplier companies you are purchasing from to reduce the challenge of obtaining information when needed?
- Do you perform supplier audits (via phone) to ensure suppliers are following the information they provided you in their annual letter?

TESTING

- Are you testing specifically for *E. coli* O157:H7 (*i.e.*, not generic *E. coli*)?
- Are you testing the ground product that is derived from in-house slaughtered cattle?
- When testing ground beef, are you holding the tested product until the results of the test are known?
- Do you perform a complete clean-up after samples are taken?
- Do you utilize different source materials after the test is taken and clean-up has occurred?
- Is the frequency of your testing adequate for your production volume?

RECORD KEEPING

- Are you recording the proper information on beef trim components received from suppliers?
- Do you have a "lotting" system established?
- When an *E. coli* O157:H7 sample is taken and you perform a clean-up, is the clean-up action appropriately documented?
- Did you identify the source materials for each "lot" of ground beef produced?

BUSINESS DECISIONS

- How much ground beef do you actually produce and sell?
- How much profit does your ground beef sales account for within your total business proceeds?
- Can you fulfill your customer needs by selling ground beef as retail exempt?
- Have you reviewed available best practice documents?

POINT OF SALE INFORMATION

- When possible, reiterate to consumers the need for proper handling and cooking (160 °F) of ground beef products and mechanically tenderized meat products.