Standard Operating Procedure for Receiving Raw Ground Beef Components or Raw Beef Pattie Components

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Justification:

Beef is a known source of pathogens that can cause severe illness. Studies by Smith et.al 2001. Journal of Food Protection 64:1899 and by Elder et.al. 2000. PNAS 97:2999 indicate the occurrence of *E.coli O157:H7* in fed cattle is higher than previously estimated from earlier studies. Several antimicrobial interventions can be applied to the carcass at steps in slaughter or fabrication that greatly reduce the prevlance of *E. coli O157:H7* on beef (Arthur, et. al. 2004 Journal of Food Protection).

Scope:

This procedure will address all Raw Ground Beef Components or Raw Beef Pattie Components received into the facility. This includes beef lean trimmings and beef subprimal and primal cuts used for the production of raw ground beef, raw ground beef patties, tenderized steaks, cube steaks, and/or raw injected beef products.

Objective:

All suppliers of raw ground beef components or raw beef pattie components (beef lean trimmings and intact beef cuts) will utilize one or more validated antimicrobial interventions for the elimination of reduction of *E.coli O157:H7* to a non detectable level and will verify the effectiveness of the intervention with a negative test for *E.coli O157:H7.*

Procedures:

Action limit:

Each supplier must provide a letter indicating raw ground beef components or raw beef pattie components are derived from carcasses that have undergone one or more recognized and validated antimicrobial interventions in their slaughter and/or fabrication for the reduction of *E. Coli O157:H7* and verify that the intervention is working.

Letter: With each load of lean trimmings or intact beef received, a current Letter of Verification (a letter supplied within the last 3 months) on file is required from Suppliers with slaughter indicating the supplier has a recognized and validated intervention / anti-microbial step for the elimination or reduction to non detectable levels of *E.coli O157-H7*. In addition, the intervention should be verified at the slaughter operation by a negative test for *E.coli O157:H7.* The supplier should also indicate the frequency of

verification and that a valid method of sampling and testing procedure for *E. coli O157:H7* was utilized for verification.

Monitoring procedures:

Who: Receiving personnel, HACCP team member or Plant operator.
What: Letter of verification from supplier.
When: Daily or on days when product is received.
Where: At the receiving of meat.
How: Visually review the letters and record on receiving monitoring sheet.

Corrective actions:

1. If letter of antimicrobial interventions and verification is not present prior to grinding, place product on hold and notify HACCP Manager or Plant Manager.
2. Contact supplier, control product until supplier generates letter of antimicrobial interventions and verification.
3. Evaluate operation for cause of deficiency; take measures to prevent recurrence.
4. Reject or condemn product if necessary.

Records:

1. Letters of antimicrobial interventions and verification from suppliers
2. Verification letter chart.

Verification: (The receiving plant should use one of the following verification methods. It is not necessary to use all verification methods identified below.)

1. Sample lots from individual suppliers for *E.Coli O157:H7* once every three months. It is recommended that sampling of lots should be collected once a month during the period of July to September. With new suppliers that are not providing certificates of analysis, 13 consecutive lots should be sampled to establish a base line before the sampling period of once every three months is implemented.
2. With each shipment, the supplier will provide a Certificate of Analysis (COA) that indicates a negative test for *E.Coli O157:H7* and the method of testing or analysis.
3. Conduct and document an audit once every year of the suppliers HACCP, SSOP, SOP, or HACCP Prerequisite program detailing the interventions used for the reduction or elimination of *E.Coli O157:H7* , the records produced, the verification activities for the intervention, the sampling procedure for verification, and the *E.Coli O157:H7* testing methods used.
4. Employ a third party to conduct and document an audit once every year of the suppliers HACCP, SSOP, SOP, or HACCP Prerequisite program detailing the interventions used for the elimination or reduction to a undetectable level of *E.Coli O157:H7* , the records produced, the verification activities for the intervention, the sampling procedure for verification, and the *E.Coli O157:H7* testing methods used.
5. Conduct and document by phone a verbal audit once every three months that the suppliers HACCP, SSOP, SOP, or HACCP Prerequisite program detailing the interventions used for the reduction or elimination of *E.Coli O157:H7* , the

verification activities for the intervention, the sampling procedure for verification, and the *E.Coli O157:H7* testing methods used.

References

Terrance M. Arthur, Joseph M. Bosilevac, Xiangwu Nou, Steven D. Shackelford, Tommy L. Wheeler, Matthew P. Kent, Divya Jaroni, Bruce Pauling, Dell M. Allen, And Mohammad Koohmaraie. 2004 ***Escherichia coli* O157 Prevalence and Enumeration of Aerobic Bacteria, *Enterobacteriaceae,* and *Escherichia coli* O157 at Various Steps in Commercial Beef Processing Plants.**, Journal of Food Protection. 67:658–665.

David Smith, Mark Blackford, Spring Younts, Rodney Moxley, Jeff Gray, Laura Hungerford, Todd Milton, And Terry Klopfenstein, 2001. **Ecological Relationships between the Prevalence of Cattle Shedding *Escherichia coli* O157:H7 and Characteristics of the Cattle or Conditions of the Feedlot Pen.** Journal of Food Protection. 64:1899–1903.

Elder, Robert. O., Dargatz DA, Wells SJ, Thomas, 2000 **Correlation of Enterohemorrhagic Escherichia coli O157 Prevalence in Feces, Hides, and Carcasses of Beef Cattle During Processing.** Proc Natl Acad Sci USA. Mar 2000. 97(7): 2999–3003.

Beef Lean Trim Receiving Log

ABC Beef Processing
Anywhere, America

Beef Lean Trim Receiving SOP (SRMs) LOG							
Date / time	Supplier	**Supplier lot code or date**	**Verification Letter on File**		**In-house Identification**	**Verification Acceptable / Unacceptable Date / Time**	Monitor **(initials)**
			Yes/No	Corrective Action			

Signature/date of Record Review:_____