



# Conference for Food Protection

## Evaluation of Intended Use Hazards During Retail Meat Grinding December 2022

### Table of Contents:

1. Charge of the Committee	2
2. Introduction	3
3. Definitions	4
4. Intended Use	8
5. Recordkeeping for beef ground at retail	10
6. Retail Practices, Reducing Risk and Supplier Communications	11
7. Regulatory Requirements	16
8. Resources & References	17
9. Appendices	
Appendix 1 - Production logs and additional records	18
Appendix 2 - Required and recommended information for records	19
Appendix 3 - Examples of language for intended use from beef suppliers	20
10. Acknowledgements	21

## 1. Charge of the Committee

Council III of the Conference for Food Protection (CFP) formed the Evaluation of Intended Use Hazards during Retail Meat Grinding committee with the directive to:

- 1.) Evaluate prior developed 'CFP Beef Grinding Log Template Guidance Document' to consider inclusion of information for the prevention of common hazards known to be associated with grinding processes
  - A.) "Intended Use" policy, purpose, and control measures including supply chain communication
  - B.) Examples of common control measures, such as supplier guarantees or certificates of analysis and ongoing verification
  - C.) Reference to FSIS guideline for minimizing STEC in Raw Beef Processing Operations (<https://www.fsis.usda.gov/guidelines/2021-0007>)
- 2.) Consider developing educational materials (e.g., handout(s) to support grinding log assessment by regulatory authorities, industry personnel, and the public. Examples may include:
  - A.) Educational fact sheets detailing hazards represented by the non-intact handling of beef intended for whole intact use
  - B.) Plain language explanations of "Intended Use" policy purpose.
- 3.) Evaluating potential changes to the Food Code to address the hazards associated with establishments grinding of beef that is manufactured as "Intended for Intact Use".
- 4.) Determining appropriate mechanisms for sharing the committee's work, and
- 5.) Reporting progress back to the next Biennial Meeting in 2023 and the committee's findings and recommendations may be presented at the subsequent Biennial Meeting if necessary.

## 2. Introduction

This committee was charged with enhancing the Conference for Food Protection (CFP) “Guidance Document for the Production of Raw Ground Beef at Various Types of Retail Food Establishments”<sup>1</sup> to include information on how retail food establishments can prevent common hazards associated with beef grinding processes.

Shiga toxin-producing *Escherichia coli* (STEC) is estimated to cause 265,000 illnesses in the US annually, including 3,600 hospitalizations and thirty deaths. To date, at least four outbreaks have been associated with beef ground at retail that was not intended for grinding (e.g., trim from intact steaks or roasts, and “pull backs”). Inadequate grinding records and insufficient sanitation between source lots at retail have hindered public health investigators' ability to determine the ultimate source of the implicated beef.

After reviewing the 2014 CFP beef-grinding document, the United States Department of Agriculture, Food Safety Inspection Service (USDA, FSIS) guidance documents and beef supplier risk elimination program presentations, the committee proposes the following changes and additions to the guidance document including:

1. Definition of “Intended Use”, its purpose and regulations,
2. Beef product examples in both categories (intended and not intended to be ground) and what risk is associated with each,
3. Recommended common control measures that can be done in a retail setting to reduce risk, such as supplier communication.

The Committee agreed that creating educational materials was out of the scope of the committee and should be created by experts in education based on the needs of their communities following the release of this guidance document.

This document is intended to be guidance for retail food establishments that grind beef and to assist with creating protocols and training materials for their establishments. The recommendations are not intended to replace, or otherwise serve as, the rules and regulations applicable to food establishments in any given federal, state, local or tribal jurisdiction. Please refer to the appropriate inspection authority in your jurisdiction for further guidance. Inspectors often have deep expertise and can assist with food safety management programs and compliance with existing regulations.

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<sup>1</sup> CFP Beef Grinding Log Committee. “Guidance Document for the Production of Raw Ground Beef at Various Types of Retail Food Establishments”. Conference for Food Protection. 2012-2014. Available from: <http://www.foodprotect.org/guides-documents/cfp-beef-grinding-log-template-guidance-document/>.

### 3. Definitions

*Note – These definitions generally represent terms used in retail establishments. When multiple definitions are available from regulatory agencies applicable to retail establishments, references are provided.*

#### **Active Managerial Control**

Active managerial control means the purposeful incorporation of specific actions or procedures by industry management into the operation of their business to attain control over foodborne illness risk factors. It embodies a preventive rather than reactive approach to food safety through a continuous system of monitoring and verification.<sup>2</sup>

#### **Batch/Set**

An identified quantity of beef that is ground based on specific attributes, such as percent lean, which will all be labeled as the same product.

#### **Bench Trim**

Product derived from cattle not slaughtered at the establishment.<sup>3</sup> In retail establishments with meat cutting operations, bench trim is generated in store. (Retailers tend to use the terms bench trim and trim interchangeably)

#### **Chub**

Rolls of ground beef that have been packaged to keep air out.<sup>4</sup> Chubs come in a variety of packaged sizes.

#### **Customer requested grinding**

As a service to customers, retailers may offer grinding of a cut of beef selected by the customer from the service case or packaged product that was not originally intended to be ground. This product is subject to the recordkeeping requirements for ground beef.

#### **Grind Cycle**

The amount of ground beef (measured by quantity and/or time) for one **lot** of product as documented by complete sanitation cycles. A grind cycle may include multiple batches/sets within a sanitation cycle.

#### **Ground Beef**

Chopped fresh and/or frozen beef or veal with or without seasoning and without the addition of beef fat as such, will not contain more than 30% fat, and shall not contain added water, phosphates, binders, or extenders.<sup>5</sup>

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<sup>2</sup> 2017 FDA Food Code Annex, page 551.

<sup>3</sup> FSIS Directive 10,010.1. Available from: [https://www.fsis.usda.gov/sites/default/files/media\\_file/2020-07/10010.1.pdf](https://www.fsis.usda.gov/sites/default/files/media_file/2020-07/10010.1.pdf)

<sup>4</sup> "Ground Beef Packaging, What's the difference?" Meat Science Organization. 2017. Available from:

<https://meatscience.org/TheMeatWeEat/topics/fresh-meat/article/2017/04/26/ground-beef-packaging-what's-the-difference>

<sup>5</sup> 9 CFR 319.15a

## **Intact Meat**

A cut of whole muscle(s) meat that has not undergone comminution, mechanical, tenderization, vacuum tumbling with solutions, or reconstruction, cubing or pounding.<sup>6</sup>

## **Intended Use**

How the federal establishment (producer) intends the product to be safely consumed or if further processing or further controls are needed. *9 CFR 417.2(a)(2)* requires each establishment to identify the intended use or consumers of the finished product. The product's intended use may affect the **STEC** controls in place at both the shipping and receiving establishments. Establishments that purchase beef from slaughter establishments should be aware of the slaughter establishment's intended use for the specific products they receive.<sup>7</sup>

## **Lot**

For the purposes of FSIS requirements in *9 CFR 320.1(b)(4)*, a lot is defined as the amount of raw ground beef produced during particular dates and times, following clean-up and until the next clean-up, during which the same source materials are used.<sup>8</sup>

## **Lot code**

Defined volume or timeframe of finished product.

## **Non-Intact**

Non-intact beef products include: ground beef; chopped beef; flaked or, minced product; beef that is vacuum tumbled with solutions; beef that an establishment has mechanically tenderized by needling (including injecting with solutions), cubing, pounding devices (with or without marinade); beef that an establishment has reconstructed into formed entrees; beef with proteolytic enzymes applied; and diced beef less than ¾ inch (dial setting) in any one dimension on average.<sup>9</sup>

## **Mechanically tenderized (non-intact)**

Manipulating meat by piercing with a set of needles, pins, blades or any mechanical device, which breaks up muscle fiber and tough connective tissue, to increase tenderness. This includes INJECTION, scoring, and processes which may be referred to as "blade tenderizing," "jaccarding," "pinning," or "needling."<sup>10,11</sup>

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<sup>6</sup> "Non-intact beef products". askUSDA. Available from: <https://ask.usda.gov/s/article/Non-intact-beef-products>

<sup>7</sup> "FSIS Industry Guideline for Minimizing the Risk of Shiga Toxin-Producing Escherichia coli (STEC) in Beef (including Veal) Processing Operations". 2021. Available from: <https://www.fsis.usda.gov/guidelines/2021-0007>

<sup>8</sup> *9 CFR 320.1(b)(4)(iii)*.

<sup>9</sup> "FSIS Industry Guideline for Minimizing the Risk of Shiga Toxin-Producing Escherichia coli (STEC) in Beef (including Veal) Processing Operations". 2021. Available from: <https://www.fsis.usda.gov/guidelines/2021-0007>.

<sup>10</sup> U.S. Department of Health and Human Services, U.S. Food and Drug Administration. FDA Food Code. 2017 Available from: [www.fda.gov/FoodCode](http://www.fda.gov/FoodCode).

<sup>11</sup> Federal Register Vol. 80, No. 95 Monday, May 18, 2015 (p. 28153-28172) Descriptive Designation for Needle- or Blade-Tenderized (Mechanically Tenderized) Beef Products.

## **Primal cut**

From FDA Food Code: A basic major cut into which carcasses and sides of meat are separated, such as a beef round, pork loin, lamb flank, or veal breast.<sup>12</sup>

From FSIS: Primal parts are the wholesale cuts of carcasses as customarily distributed to retailers. The round, flank, loin, rib, plate, brisket, chuck, and shank are primal parts of beef carcasses. Veal, mutton, and goat primal parts are the leg; flank, loin, rack, breast, and shoulder.<sup>13</sup> *(For the purpose of this document, only beef and veal are in scope.)*

## **Production Cycle**

Consists of one or more **Grind Cycles**.

## **Production Log**

Documents used to facilitate or supplement the recordkeeping requirement for ground beef. Some retailers find it helpful to maintain a production log that contains additional details on timing and products used to help with internal records. Production logs are not required in the FSIS regulation on recordkeeping, and do not take the place of the official records required by FSIS. See Appendix for a sample production log.

## **Pull backs**

Retail packaged cuts, such as steaks or roasts, removed from the self-service refrigerated display cases and either reworked into smaller cuts, such as stew beef or cube steak, or ground product. “Pull-backs” can be ground separately but are sometimes co-mingled with in-store produced bench trim.

## **Recordkeeping requirements for beef (grinding log)**

FSIS finalized a rule on December 21, 2015, requiring additional records be kept for establishments and retailers grinding beef. The rule is titled “Records to Be Kept by Official Establishments and Retail Stores That Grind Raw Beef Products.”<sup>14</sup>

## **Re-work**

Changing the form of a meat or poultry cut by reprocessing it down into smaller pieces or transformed to a different product to maximize shelf life.

FDA Definition: Rework means clean, unadulterated food that has been removed from processing for reasons other than insanitary conditions or that has been successfully reconditioned by reprocessing and that is suitable for use as food.<sup>15</sup>

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<sup>12</sup> U.S. Department of Health and Human Services, U.S. Food and Drug Administration. FDA Food Code. 2017.

<sup>13</sup> 9 CFR 316.9(b).

<sup>14</sup> Records To Be Kept by Official Establishments and Retail Stores That Grind Raw Beef Products. *Federal Register*.2015. Available from: <https://www.federalregister.gov/documents/2015/12/21/2015-31795/records-to-be-kept-by-official-establishments-and-retail-stores-that-grind-raw-beef-products>

<sup>15</sup> 21 CFR 117.3.

### **Standard Operating Procedures (SOP)**

Written procedures that an establishment develops and implements to prevent direct contamination or adulteration of product, internal protocols.<sup>16</sup>

### **Sanitation Standard Operating Procedures (SSOP)**

Written procedures (specific to sanitation) that an establishment develops and implements to prevent direct contamination or adulteration of product, internal protocols.<sup>17</sup>

### **Subprimal cuts**

The first division of a whole carcass is into primal cuts. The four major **primal cuts** into which beef is separated are chuck, loin, rib and round. All primal cuts may or may not be intended for use in ground products. **Primal cuts** are then divided into subprimal cuts. Examples of subprimal cuts of beef are the top round, whole tenderloin, and rib eye. Any subprimal cut may or may not be intended for use in ground products.<sup>18</sup>

### **STEC**

FSIS uses the term STEC to refer to Shiga toxin-producing *Escherichia coli* (*E. coli*) O157:H7 and six non O157 serogroups O26, O45, O103, O111, O121, and O145 that are adulterants in raw non-intact beef and raw intact beef intended for non-intact use.<sup>19</sup>

### **Trim**

Beef products produced from in-house source materials.<sup>20</sup> (Retailers tend to use the terms bench trim and trim interchangeably)

### **Vacuum packaged**

Source product (**primal cuts**) packaged in vacuum packed bags from supplier are typically considered to be **intended for intact use**.

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<sup>16</sup> FSIS Standard Operating Procedure Guide. *USDA*. Available from: [https://www.fsis.usda.gov/sites/default/files/media\\_file/2021-03/Sanitation-SOP-Guide.pdf](https://www.fsis.usda.gov/sites/default/files/media_file/2021-03/Sanitation-SOP-Guide.pdf)

<sup>17</sup> FSIS Standard Operating Procedure Guide. *USDA*. Available from: [https://www.fsis.usda.gov/sites/default/files/media\\_file/2021-03/Sanitation-SOP-Guide.pdf](https://www.fsis.usda.gov/sites/default/files/media_file/2021-03/Sanitation-SOP-Guide.pdf)

<sup>18</sup> "What are primal cuts?" AskUSDA. Available from: <https://ask.usda.gov/s/article/What-are-the-primal-cuts>

<sup>19</sup> "Expansion of FSIS Shiga Toxin-Producing *Escherichia coli* (STEC) Testing to Additional Raw Beef Products". Available from: <https://www.fsis.usda.gov/node/2272>

<sup>20</sup> FSIS Directive 10,010.1. available from: [https://www.fsis.usda.gov/sites/default/files/media\\_file/2020-07/10010.1.pdf](https://www.fsis.usda.gov/sites/default/files/media_file/2020-07/10010.1.pdf)

## 4. Intended Use

Federally inspected beef suppliers (approved suppliers to retail food establishments) should determine the intended use of the products shipped including the determination if the product is meant to be safely consumed (following proper food handling practices) or if further processing or further controls are needed for the product to be safely consumed.

Through regulations specified in *9 CFR 417.2(a)(2)*, FSIS requires each establishment (supplier) to identify the intended use or consumers of the finished product. The product's intended use may affect the STEC controls in place at both the shipping and receiving establishments. Intended use of beef products for use at retail should be known, communicated and considered when planning production of retail packaged products. The intended use for the purpose of this document is to facilitate the safe consumption of the beef product or to clarify if additional controls or treatment is needed.

STEC is not an adulterant on raw intact beef products, such as steaks and roasts, which are "intended" for intact consumer use. This is because STEC contamination would be limited to the exterior surfaces of intact beef products and, if these products remain intact, normal consumer cooking will destroy any STEC on the outer surfaces, even if the product is cooked to a rare or medium internal state. STEC is an adulterant in raw non-intact beef products (ground beef) and raw intact beef products intended for raw non-intact use because the same consumer cooking practice will not destroy any STEC that have been internalized by the non-intact processing. STEC is also considered an adulterant in products for which the intended use is not clearly defined or supported.<sup>21</sup>

USDA FSIS documentation in askFSIS states that regulated establishments (beef suppliers) should<sup>22</sup>:

- Identify the intended use of the product as per *9 CFR 417.2(a)(2)*.
- Develop decision-making documents based on objective measures which identify the intended use of the product. A hazard analysis must be included with the documents and must be consistent with the establishment's assertion that the product in question is/is not for use in raw non-intact product.
- Have measures in place to restrict products that are for intact use only. Such measures may include letters to the purchasers, website postings, bill of lading communications, and a receipt of acknowledgement that the purchasers understand that this product is intended solely for intact use as described in detail by the posted askFSIS answer "Adequate Support for the Intended Use of Beef Primal and Subprimal Cuts".<sup>23</sup>

<sup>21</sup> "FSIS Industry Guideline for Minimizing the Risk of Shiga Toxin-Producing Escherichia coli (STEC) in Beef (including Veal) Processing Operations". Available from: <https://www.fsis.usda.gov/guidelines/2021-0007>

<sup>22</sup> "Adequate Support for the Intended Use of Beef Primal and Subprimal Cuts". AskUSDA.

<https://ask.usda.gov/s/article/Adequate-Support-for-the-Intended-Use-of-Beef-Primal-and-Subprimal-Cuts>

<sup>23</sup> Supporting the supply of raw beef intended for intact use. AskUSDA. Available from: <https://ask.usda.gov/s/article/Supporting>



Some acceptable ways that the establishment can support that primal and subprimal cuts are intended for raw intact product include:

- The establishment communicates the intended use to the receiving establishment or facility by making the letter of intended use available on the producing establishment's company website and references the letter of intended use on bills of lading.
- The establishment receives letters of guarantee showing that all product is used in raw intact product only and maintains on-going communication with the receiving establishment or facility to verify that product is being processed as raw intact product only.
- The establishment has a contractual agreement with the receiving establishment or facility so the producing establishment has knowledge of the receiving establishment or facility's production process.<sup>24</sup>

Intended use should be considered when retailers are grinding primals, subprimals, purchased trim, boxed beef, or other components (e.g., mechanically separated beef or partially defatted beef fatty tissue) that are not accompanied by records of negative *E. coli* O157:H7 or other STEC test results.

Supplier labeling designating the intended use is not required. Therefore, retailers should work with their suppliers to be sure they understand how the supplier will communicate the intended use of beef products. There are various ways a supplier can communicate the intended use of beef to the retailer. Following are some examples:

- Direct communication with the supplier of raw beef products
- Receiving a letter identifying the intended use with each lot of product
- Contractual agreement with the supplying establishment
- Receiving a Certificate of Analysis (COA), testing results, or similar documentation showing the basis for the supplier's designated intended use
- Documentation showing that the product has been tested and found to not contain *E. coli* O157:H7 or other STEC
- Other documents such as Bill of Lading or Letter of Guarantee
- Using a code or labeling to identify the intended use of the product

If the retailer is unclear on the intended use of a product, they should contact their supplier for further clarification.

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<sup>24</sup> Adequate Support for the Intended Use of Beef Primal and Subprimal Cuts". AskUSDA. Available from: <https://ask.usda.gov/s/article/Adequate-Support-for-the-Intended-Use-of-Beef-Primal-and-Subprimal-Cuts>

## 5. Recordkeeping for Beef Ground at Retail

Existing regulations from FSIS require that all facilities grinding beef (including retail establishments) maintain records regarding the source materials and cleaning and sanitation practices. In a rule published in December 2015, FSIS specified the recordkeeping requirements in *9 CFR 320.1(b)*.

Official establishments and retail stores are required to maintain records that fully disclose:

1. The establishment numbers of the establishments supplying the materials used to prepare each lot of raw ground beef product;
2. All supplier lot numbers and production dates;
3. The names of the supplied materials, including beef components and any materials carried over from one production lot to the next;
4. The date and time each lot of raw ground beef product is produced; and
5. The date and time when grinding equipment and other related food-contact surfaces are cleaned and sanitized.

Records can be in any format but should be legible and accessible at all times. Records must be maintained for one year. When feasible, all retailers are encouraged to adopt electronic recordkeeping to collect and maintain this important data in a secure and usable format. Technology will facilitate accurate and timely tracebacks, although smaller retailers may find it challenging due to limited financial and human resources support to move to digital records. Retailers that adopt electronic recordkeeping should develop SOPs to address how to capture key grinding data for system issues or malfunction.

### **Template: Sample Recordkeeping Template for Grinding Beef**

**Retail Establishment Name:** Store #

**Retail Establishment Production Date**

Date and time of grind (required)	Manufacturer name of source material used for product produced (required)	Establishment number(s) of establishment providing source material (required)	Supplier lot #s, product code and/or pack date of source material used (required)	Date and time grinder and related Food Contact Surfaces cleaned and sanitized (required)	Comments	Information linking to the retail package (recommended)

## 6. Retail Practices, Risk Reduction, and Supplier Communications

Implementing retail practices and strategies for reducing risks in the retail meat department should be part of an Active Managerial Control program. Active Managerial Control is the purposeful incorporation of specific actions or procedures by management into the retail operations to attain control over foodborne illness risk factors. It embodies a preventive rather than reactive approach to food safety through a continuous system of monitoring and verification.

### ***Beef Handling and Grinding Practices at Retail***

A producer or supplier of beef cannot verify that all pathogens have been eliminated from raw beef. However, producers have procedures in place for handling, treating, and testing beef in accordance with a HACCP plan and under FSIS federal inspection oversight to minimize the risk of contamination. The risk control steps taken by a supplier are used to designate the intended use of the meat once that meat is in a retail facility.

The risks associated with beef at a retail establishment will depend on several factors including how the supplier intended the beef to be handled, processed, labeled, and sold at retail. When implementing retail practices, the risk should be considered based on product type and intended use.

All the practices in the following examples are permitted. Some of these practices are based on following the supplier's intended use designation for the product. Other retail practices may present additional risk because they are not in accordance with the supplier's intended use and these are designated as non-intended use practices.

#### **1. Practices/Products Based on Intended Use**

Beef products from a supplier that are intended to be consumed intact.

Examples: Steaks, roasts, smaller cuts of beef such as stew beef or primals in vacuum packaging. It does not include meat that has been ground, comminuted, mechanically tenderized (needled), vacuum tumbled, reconstructed, cubed, or pounded.

Rationale: These products are least likely to have contamination. Contamination, if present, is on the cut surface only. These pieces of beef may have surface contamination, but the outside surfaces will receive sufficient heat treatment when cooked by the consumer to render them safe.

Beef products from a supplier that can be cut at the retail facility provided they retain an intact surface that will be heat-treated when cooked by the consumer.

Examples: Primals, sub-primals, or large roasts that are cut into steaks or smaller pieces. It does not include meat that has been ground, comminuted, mechanically

tenderized (needled), vacuum tumbled, reconstructed, cubed, or pounded. Nothing has been done at retail to introduce pathogens into the interior of the meat and any contaminants will remain on an exterior surface.

Rationale: Contamination, if present, is on the cut surface only. These pieces of beef may have surface contamination, but the outside surfaces will receive sufficient heat treatment when cooked by the consumer to render them safe.

Beef that has been ground, comminuted, mechanically tenderized (needled), vacuum tumbled, reconstructed, cubed, or pounded by the supplier. This is non-intact meat which the supplier intended to be consumed in this form.

Examples: Beef ground by the supplier (may be pre-packed or bulk), cubed steaks, mechanically tenderized steaks. In all these examples, the meat was converted into non-intact beef by the supplier.

Rationale: Although this meat is not intact, the supplier has taken additional steps for handling, treating, and testing this beef in accordance with a HACCP plan and under FSIS federal inspection oversight to minimize the risk of STEC contamination.

Beef that has been ground or comminuted by the supplier but will be re-ground at the retail establishment. This is non-intact meat which the supplier intended to be consumed in this form.

Examples: Large chubs or containers of ground beef or coarse ground beef that will be re-ground at the retail facility.

Rationale: The supplier has already converted this beef into non-intact product. The supplier has taken additional steps for handling, treating, and testing this beef in accordance with a HACCP plan and under FSIS federal inspection oversight to minimize the risk of STEC contamination.

Beef trimmings from the supplier that are intended to be ground at retail. This meat will be converted into non-intact beef at retail.

Examples: Combo bins of trimmings, fat, and other small pieces of beef intended by the supplier to be ground at retail.

Rationale: The supplier has taken additional steps for handling, treating, and testing this beef in accordance with a HACCP plan and under FSIS federal inspection oversight to minimize the risk of STEC contamination.

## 2. Practices Not Based on Intended Use

Non-intended use practices may require additional controls to help mitigate risk of cross contamination if STEC is present on the exterior portion of the beef prior to grinding. Although the controls will help mitigate cross contamination, they will not address the risk of STEC in the product. Examples of non-intended use include the following:

Beef that is intact and which the supplier did not intend to be ground at retail. Intact beef that is not intended by the supplier to be comminuted, mechanically tenderized (needled), vacuum tumbled, reconstructed, cubed, or pounded at the retail establishment.

Examples: Converting store-generated trim (bench trim, market trim, case trim, block trim), re-work, pull-backs, and customer orders into ground beef. Cubing steaks or needle tenderizing beef at the retail facility.

Rationale: Although suppliers have procedures in place for handling, treating, and testing beef in accordance with a HACCP plan and under FSIS federal inspection, this product did not receive any additional treatment or testing to further reduce the risk of STEC contamination. The supplier did not intend for this meat to be converted into non-intact beef at retail.

### ***Controls to Reduce Risk at Retail***

There are steps that can be taken at retail to help reduce the risks of contamination of beef. These include developing a written beef grinding protocol that specifies, at a minimum, segregation, separation, grinding practices, lotting, recordkeeping, and labeling.

Retail practices may include:

- Grinding product in small batches to reduce co-mingling of different products
- Labeling products with different source materials to ensure proper identification
- Maintaining complete and accurate production logs and grinding logs
- Segregating products based on designation of intended use
- Establishing consistent grinding sequence (Examples: from intact to non-intact; from most lean to higher fat content)
- Separating production cycles based on type of products or species
- Designating shelf life and/or use by date
- Sourcing meat from approved suppliers following all FSIS regulations

Additional good retail practices include:

- Rotate supply first-in first-out and pay attention to dates.
- Avoid mixing species unless intentional and clearly labeled. Clean and sanitize equipment between species.
- All food contact surfaces should be cleaned and sanitized before use.
- All products should be held at proper temperatures.

- Properly label all products with source, date, time and other required information.
- Avoid mixing multiple products from different suppliers because it makes the recordkeeping and traceback difficult.
- Control other hazards including foreign material.
- Develop a written cleaning and sanitizing program.

The control program should address the cleaning and sanitizing of food contact surfaces, equipment, utensils, implements, and the meat processing areas including frequency of cleaning, cleaning/sanitizing chemicals and tools that will be used. The time of each cleaning and sanitizing should be documented in the recordkeeping system for beef ground at retail. Training is recommended for all employees with responsibilities for cleaning and sanitizing.

Refer to the FDA Food Code and your state, local, tribal or territory requirements for cleaning and sanitation best practices. Section 4-602.11 of the FDA Food Code states that all food contact surfaces shall be cleaned at least every four hours. The food code provides for cleaning less frequently than every four hours if the utensils and equipment are held in a refrigerated room and cleaned according to the frequencies provided in the food code. (See *2017 FDA Food Code* Section 4-602.11)

<u>Temperature</u>	<u>Cleaning Frequency</u>
5.0°C (41°F) or less	24 hours
>5.0°C -7.2°C (>41°F -45°F)	20 hours
>7.2°C -10.0°C (>45°F -50°F)	16 hours
>10.0°C -12.8°C (>50°F -55°F)	10 hours

#### Breaks in the grinding cycle

When grinding beef, intentional breaks in the grinding cycle are critical and should not be overlooked. A break in the grinding cycle is a combination of a complete cleaning and sanitizing step in conjunction with no carryover of product. Breaks should be used to separate lots, batches, or cycles of product to reduce the risk of cross-contamination. Breaks in the production of ground beef can be the difference between needing to recall product from only part of a day or all product produced over several days. The day and time of all cleaning and sanitizing breaks in the cycle should be documented and included as part of the grinding log.

#### Employee Training and Personal Health and Hygiene

Proper training of all employees with access to food production, storage, and packaging areas is essential. Only properly trained employees should be allowed in designated areas.

The Food Code and/or state and local regulations have guidelines for employee health and hygiene including illness procedures and policies for hand washing, proper clothing, coverings, hair restraints, gloves, etc. Local, state, and federal regulations should be followed at all times.

Retailers should develop specific training programs for the employees, certified food protection manager (CFPM), and person in charge (PIC) specific to working in the meat department. This includes grinding practices and protocols along with collecting, recording, and maintaining grind log data during their daily job duties.

#### Lotting at Retail

The package of beef produced at retail must be linked to the lot code(s) of the product from which it was made, i.e., the source product. The retail-ground lot should have a supportable definition and should link the packaged product to the source material.

Official establishments and retail stores are to define a lot of raw ground beef product as the amount of raw ground beef produced during particular dates and times, following clean-up and until the next clean-up, during which the same source materials are used. This ground beef recordkeeping lot definition is distinct from the STEC lot definition used by official establishments; the establishment lot may not be the same as retailer lot.)

The practices above also apply to product that is comminuted, mechanically tenderized (needled), vacuum tumbled, reconstructed, cubed, or pounded at retail.

#### Communication with Suppliers

It is important that retailers understand how a supplier indicates the intended use of beef products. Suppliers should provide information on the intended use so retailers can assess the risk associated with grinding different types of beef products.

Intended use should be considered when retailers are grinding primals, sub-primals, purchased trim, boxed beef, or other components (e.g., mechanically separated beef or partially defatted beef fatty tissue).

Supplier labeling designating the intended use is not required. Therefore, retailers should work with their suppliers to be sure they understand how the supplier will communicate the intended use of beef products. There are various ways a supplier can communicate the intended use of beef to the retailer. Following are some examples:

- Direct communication with the supplier of raw beef products
- Receiving a letter identifying the intended use with each lot of product
- Contractual agreement with the supplying establishment
- Receiving a Certificate of Analysis (COA), testing results, or similar documentation showing the basis for the supplier's designated intended use
- Documentation showing that the product has been tested and found to not contain *E.coli* O157:H7 or other STEC
- Other documents such as Bill of Lading or Letter of Guarantee
- Using a code or labeling to identify the intended use of the product

## **7. Regulatory Requirements**

Procedures outlined in this document are based on well-established food safety principles and set forth as guidance for planning and conducting safe grinding activities at retail. The use of this guidance is voluntary, and it is not a regulatory document. Retail food establishments that participate in beef grinding should operate in accordance with any applicable federal, state, and local food safety statutes and regulations. For example, retail food establishments conducting grinding activities may also be subject to the FDA Food Safety Modernization Act (FSMA) as well as applicable Current Good Manufacturing Practices (CGMPs) or USDA Food Safety Inspection Service's (FSIS) requirements. It is important that retail food establishments understand all legal and regulatory requirements, as well as industry guidelines, governing the safety of food throughout the grinding process

**State, territorial, and local establishments with regulations modeled after the FDA model Food Code should include the following in their operations:**

1. Presence of a Certified Food Protection Manager (U. S. Food and Drug Administration, § 2-102.12(A))
2. Compliance with Food Law (Approved Source) (U. S. Food and Drug Administration, §3-201.11(A))
3. Compliance with Food Law (Safe Handling Instructions) (U. S. Food and Drug Administration, §3-201.11(F))
4. Packaged and Unpackaged Food-Separation, Packaging, and Segregation (Food Storage) (U. S. Food and Drug Administration, §3-302.11)
5. Equipment Food-Contact Surfaces and Utensils. (Cleaning Frequency) (U. S. Food and Drug Administration, §4-602.11)
6. Employee Health (U. S. Food and Drug Administration, Subpart 2-201)
7. Hygienic Practices (U. S. Food and Drug Administration, Part 2-4)

**It is strongly recommended that establishments focus on the following:**

1. Establishing active managerial control, including developing policies, training staff, and maintaining detailed logs/records.
2. Understanding the concerns associated with using beef that is not intended for grinding.
3. Understanding the importance of having a clean break in the production cycle.



## 8. Other Resources and References

“Guidance Document for the Production of Raw Ground Beef at Various Types of Retail Food Establishments” CFP 2014

<http://www.foodprotect.org/guides-documents/cfp-beef-grinding-log-template-guidance-document/>

“Industry Guideline for Minimizing the Risk of Shiga Toxin-Producing Escherichia coli (STEC) in Raw Beef (including Veal) Processing Operations” FSIS 2021

<https://www.fsis.usda.gov/guidelines/2021-0007>

“FSIS Compliance Guideline for Minimizing the Risk of Shiga Toxin-Producing Escherichia coli (STEC) in Raw Beef (including Veal) Processing Operations” FSIS 2021

<https://www.fsis.usda.gov/guidelines/2021-0007>

“Records To Be Kept by Official Establishments and Retail Stores That Grind Raw Beef Products” Federal Register Vol. 80, No. 244 Monday, December 21, 2015 (p. 79231-79250)

<https://www.govinfo.gov/content/pkg/FR-2015-12-21/pdf/2015-31795.pdf>

“Best Practices for Raw Ground Beef Products” BIFSCo 2020

[https://www.bifsc.org/Media/BIFSCO/Docs/bp\\_for\\_raw\\_ground\\_products\\_final\\_2020.pdf](https://www.bifsc.org/Media/BIFSCO/Docs/bp_for_raw_ground_products_final_2020.pdf)

## 9. Appendices

### Appendix 1 - Production logs and additional records

A Beef Grinding Log may be used in conjunction with a company's beef production log (or cutting list) log. Production logs are used by retailers to project and produce specific types and amounts of steaks and roasts needed in a production cycle. A fall-out benefit of a production log is that they collect the source material of any bench trim that may have been produced by the retailer while fabricating steaks and roasts for the refrigerated display case. For those retailers grinding bench trim, this becomes the easiest way to collect the necessary data. Production logs or cutting lists will need to contain the supplier establishment number, manufacturer's name of the primal, and pack date and lot or serial number of the primal. (Note: Beef packers will reuse lot and serial numbers. However, documenting *both* the lot or serial number and pack date or use by date for a source material would make the lot or serial number unique.) Retailers will then need to file together both the production log and grind log for record keeping. The *Sample Primal Production Log for Retail Food Establishments* below shows the pertinent information that must be tracked on a production log if an establishment is grinding in-store produced bench trim and/or pull back material.

Completed grinding records must be maintained for a minimum of one year<sup>25</sup>. All such records should be accessible within 24 hours and are required to be maintained at the location where the raw beef was ground.

#### Production Log for Trim

#### Sample Primal Production Log for Retail Food Establishments

Examples for use include customer requested grinds and pull backs

Store Location: Store #55			Production Date: 08/04/2022	
Primal Product Name as Listed on the Box	Vendor/Supplier Name	Establishment #	Lot Number	Pack Date
BEEF KNUCKLE	Swift	3D	7846515	07/24/2022

\*Note: This sample production log is being provided as an example to visually provide the pertinent information that must be tracked (in addition to a beef grinding log) if an establishment is grinding in-store produced bench trim and/or pull back material. This document must not be misconstrued to prohibit an establishment from keeping this information in a different manner or format.

<sup>25</sup> 9 CFR 320.1(b)4

**Appendix 2 - Required and recommended information for records**

<b>Required Recordkeeping (9 CFR 320.1(b))</b>	<b>Recommended data elements for records</b>
	Retail Establishment Name
	Supplier Name
(A) The establishment numbers of the establishments supplying the materials used to prepare each lot of raw ground beef product;	Establishment Number(s) of Beef Supplier
(B) All supplier lot numbers and production dates;	Lot Number of product ground Pack Date of product ground
(C) The names of the supplied materials, including beef components and any materials carried over from one production lot to the next;	Common Name of Primal
	Common name of product made
(D) The date and time each lot of raw ground beef product is produced; and	Date and time of grind
(E) The date and time when grinding equipment and other related food-contact surfaces are cleaned and sanitized.	Date and time for cleaning and sanitation of grinding equipment
	Link to package label created by retailer

### **Appendix 3 - Examples of language for intended use from beef suppliers**

Suppliers typically provided intended use information in letters of guarantee (LOG) or other information posted on their websites. The following are examples of LOG from beef suppliers:

<https://www.cargill.com/doc/1432077201913/mfs-subprimal-fsis-mt65-ltr-pdf.pdf>

<https://pacfoods.com/wp-content/uploads/2021/02/JBS-Beef-Food-Safety-Letter-01.04.21.pdf>

*Disclaimer: These letters should not be considered an endorsement of any particular supplier or company.*

## 10. Acknowledgements

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