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# VT Directive 10,250.1 Rev. 1 Sampling Instructions: Salmonella and Campylobacter Sampling Program

#### Chapter 1: General

#### I. Purpose

Salmonella and Campylobacter performance standards are used as a measure of a properly operating food safety system. VT meat inspection program follows the PR/HACCP rule that sets Salmonella and Campylobacter performance standards for establishments that slaughter a minimum volume of selected classes of intact food animals or that produce a minimum volume of selected classes of raw ground products. These minimum volumes are based on the minimum volumes that FSIS uses in establishing establishment eligibility for sampling.

Salmonella and Campylobacter performance standards are used to ensure that each establishment that meets this minimum volume of product is consistently achieving an acceptable level of performance with regard to controlling and reducing harmful bacteria on raw meat and poultry products. The microbiological performance standards for reduction of Salmonella and Campylobacter in raw products, coupled with performance criteria for use with E. coli testing allow our program to verify the effectiveness of process controls in slaughter establishments in a method that is equal to the USDA FSIS.

NOTE: FSIS intends to update the Campylobacter performance standards; therefore, although FSIS continues to test product for Campylobacter, it does not assess whether establishments meet the performance standards. Vermont will follow this.

In establishments that slaughter less than 20,000 young chicken or turkey annually or produce less than 1001lbs of either raw ground or comminuted poultry or raw chicken parts per production day (low volume), as of August 2019 (Notice 27-10), the USDA FSIS does not perform routine Salmonella or Campylobacter verification sampling. However, the Vermont Meat Inspection program may periodically sample these products for *Salmonella* and/or *Campylobacter* in these low volume establishments.

VAAFM uses companion samples collected via the Raw Beef sampling projects to monitor Salmonella in raw beef in establishments that produce less than 1001lbs of ground beef per production day. This testing is an "add-on" by the laboratory and does not require any additional samples to be taken.



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#### II. References:

- A. FSIS Directive 10250.1, current revision
- B. FSIS Eligibility Criteria and Sampling Frame Guidance
- C. VT Directive 5300.1, Managing the Establishment Profile in the Public Health Information System
- D. Any current Notice related to Salmonella and Campylobacter Sampling
- E. Guidance to States on Frequency of Microbiological Testing for the current Review Cycle
- F. FSIS Microbiology Laboratory Guidebook: Isolation and Identification of Salmonella from Meat, Poultry, Pasteurized Egg, and Siluriformes (Fish) Products and Carcass and Environmental Sponges; and Isolation and Identification of Campylobacter jejuni/coli/lari from Poultry Rinse, Sponge and Raw Product Samples

#### Chapter 2: Sampling Program

- I. General Sampling Policies
  - A. IPP are to routinely update product volumes in the Public Health Information System (PHIS) to ensure that all information is accurate (see VT Directive 5300.1, Managing the Establishment Profile in the Public Health Information System)
  - B. Prior to collecting samples, IPP are to be familiar with:
    - Random sampling, which may include the use of random number tables, drawing cards, or using computer generated random numbers for randomly selecting the specific product for sampling. It is very important that applicable product from all shifts, lines chillers, coolers, and grinders have an equal chance of being selected for sampling;
    - 2. Aseptic sampling techniques. In general, extraneous organisms from the environment, hands, clothing, sample containers, and sampling devices may lead to erroneous analytical results. Stringent requirements for microbiological analysis are necessary; therefore, use of aseptic sampling techniques and clean, sanitized equipment are of utmost importance. Aseptic sampling technique. Resources for aseptic technique are available on IPP Help (IPP will be able to open the IPP Help button from the "FSIS Applications" start menu item on their FSIS Computer); and
    - 3. Specific sampling methodology. The sampling steps appropriate to the product class sampled are defined in the product-specific chapters in this directive. Each of these product classes has a



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specific sampling methodology that IPP need to be familiar with before sampling that class.

#### C. Products Subject to Sampling

- 1. Raw products with established PR/HACCP performance standards that meet minimum production; includes carcasses of young chickens (broilers), and young turkeys. Processed products measured by performance standards include ground beef, ground chicken, and ground turkey.
- VT will continue to assess trim and ground beef for Salmonella verification coupled with STEC testing. Additionally, it will suspend Salmonella verification sets for market hogs until FSIS reinstates its testing.

#### D. Products Not Subject to Sampling

- 1. Until further notice, sample sets will not be scheduled for Market Hogs, Cows/Bulls, or Steers/Heifers.
- 2. Religious exempt poultry product is not subject to sampling
- 3. Mixed species ground product is not eligible for sampling
- 4. Establishments that slaughter less than 20,000 young chicken or turkey annually or product groups with an average daily production of 1,000 pounds or less are excluded from routine verification sampling (low volume)
- 5. Any product group diverted for pet food manufacturing as inedible without the mark of inspection and labeled "Not for Human Food" is not subject to FSIS sampling for Salmonella or Campylobacter;
- 6. Poultry products which are breaded, battered, stuffed with a nonmeat component, or wrapped in dough are currently excluded from routine verification sampling.
- 7. An establishment is excluded from sampling when the establishment either processes all product in a product class into RTE product or moves all product from a product class to another official State-inspected establishment for further processing into an RTE product (see Chapter VII Raw product destined for Readyto-Eat product excluded from Salmonella testing).

#### E. Notification of sampling

1. When the inspector schedules a sample to be taken on a slaughter day, please follow the SOP for <u>Scheduling a State Plant Sample</u> Using the AGR-MI calendar.



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2. When possible, IPP are to collect samples at a frequency of no more than once per week on a day the establishment produces the product. In the case that there are more samples than weeks in the sampling window, IPP are to schedule sample collection evenly throughout the month. If necessary, more than one sample can be taken in a week.

#### F. Sampling Supplies

- 1. Inspectors are to verify that proper supplies are present, and request any supplies needed form the Meat Inspection Office.
- 2. IPP are not to share or split samples and supplies with the establishment. If the establishment is interested in doing its own analysis, IPP are to be aware it may use its own supplies to collect a different sample at approximately the same time and point of production the VAAFM poultry sample is collected. Two samples from one site may give rise to different results, because contamination may not be evenly distributed within a sample.
- 3. IPP are to ensure sample security prior to shipping to the laboratory and are not to expose the sample box to excessive heat while at the establishment. The laboratory will discard rinse samples that arrive above 15°C (59°F) and will cancel Campylobacter testing if the sample is received below 0°C (32°F).

### CHAPTER 3: SALMONELLA AND CAMPYLOBACTER SAMPLING PROCEDURES FOR YOUNG CHICKENS

| <b>Product class</b>           | Pathogen      | Sampling Method        |
|--------------------------------|---------------|------------------------|
| Young<br>Chickens<br>(Carcass) | Salmonella    | 100 ml nBPW<br>rinsate |
|                                | Campylobacter |                        |

#### I. PRODUCT ELIGIBILITY FOR SAMPLING

A. Carcasses of "Rock Cornish game hens" (also called "Cornish game hen" or "poussin"), "broilers," "fryers," and "roasting chickens" (also called "roasters"), as described in 9 CFR 381.170(a), are in the "Young Chicken" product class and are to be sampled for *Salmonella* and



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*Campylobacter*. Other chicken product classes -- capon, hen, fowl, baking chicken or stewing chicken, and cock or rooster -- are not subject to VAAFM verification testing.

B. VAAFM does not collect samples of or analyze for *Salmonella* and *Campylobacter* chickens or chicken products produced under a religious exemption and not bearing the mark of inspection.

**NOTE:** Establishments that slaughter less than 20,000 young chicken or turkey annually or produce less than 1001lbs of either raw ground or comminuted poultry or raw chicken parts per production day (low volume) are not eligible for routine Salmonella or Campylobacter verification sampling. In these low volume establishments the Vermont Meat Inspection program may periodically sample these products for *Salmonella* and/or *Campylobacter*. The frequency and timing of testing of carcasses is based on the establishment's previous test results and other information concerning the establishment's performance. VT reserves the right to use the moving window approach for sampling young chickens and young turkey carcasses for determining compliance with the *Salmonella/Campylobacter* FSIS PR/HACCP sampling program. In an establishment producing more than one class of product subject to the pathogen reduction standard, VT may sample any and all such class of product.

#### II. PREPARING TO COLLECT A SAMPLE

A. IPP are to check availability of supplies. One or more days prior to sample collection, IPP are to:

- 1. Designate an area for preparing and gathering sampling supplies. A small tote or caddy carried to the location of sampling could be used for transporting supplies and supporting sample bags to which IPP are adding sterile solutions;
- 2. Open shipping container and check the office to ensure that all the supplies needed for sample collection are inside or in the inspectors' office. Remove the supplies from the container. These can be stored in the government office. Inspectors are to verify the proper sample supplies and sampling forms for the laboratory are available.
- 3. Check the refrigerator for the Buffered Peptone Water (nBPW) container. Check the sampling broth container for leaks and expiration information. If broth is expired, leaking, or has other condition issues upon arrival, it is to be discarded and IPP are to request a replacement broth. IPP are not to discard sampling broth based solely on appearance (e.g., cloudiness).
- 4. General supplies for sample collection (e.g., sample collection bags, sterile gloves); and the specific materials for the type of sample to be collected (e.g., templates and specimen sponges for turkey carcass samples or bags and nBPW for carcass rinses);



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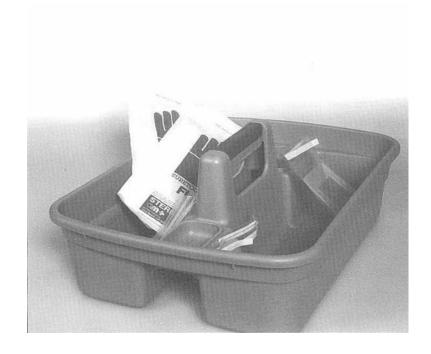
- B. On the day of sampling, IPP are to:
  - 1. Collect the sanitizing solution, if needed;
  - 2. Sanitize the cart, caddy¹, tote¹, or other designated work area surfaces by spraying the Lysol ® Food Surface sanitizer over the caddy until wet, then letting air dry. Alternatively, wipe with a clean disposable cloth or paper towel dipped in freshly prepared 500 parts per million (ppm) sodium hypochlorite solution (0.05% sodium hypochlorite) or other approved sanitizing solution that provides the equivalent available chlorine concentration. If IPP use a sodium hypochlorite solution, they are to make it just prior to use, since its strength diminishes upon standing. To make the solution, IPP are to add 2-4 oz of sodium hypochlorite (Purex® or its equivalent)¹ to one gallon (128 oz) of potable water. This will give a strength of 500-1000 ppm hypochlorite. The sample work area surfaces must be free of standing liquid before sampling supplies or product containers are placed on them.
  - 3. Place gel packs in the freezer and place the open shipping container in the cooler/refrigerator to pre-chill. IPP are to ensure sample security prior to shipping to the laboratory and are not to expose the sample box to excessive heat while at the establishment. The laboratory will discard rinse samples that arrive above 15°C (59°F) and will cancel Campylobacter testing if the sample is received below 0°C (32°F).
  - 4. IPP are to select a time at which to collect the sample:
    - a. Determine the times that chilled carcasses will be available at the end of the drip line, or at the last readily accessible point before packaging or cut-up (or the equivalent in air-chill or hot-bone operations), and then randomly select the time from within that time frame for collecting the sample.
    - b. Select a chiller or line from which to collect the sample. If more than one chiller system is in operation at the time of sample collection, IPP are to randomly select the chill tank from which to take the sample. IPP are to determine a safe, appropriate point from which to collect the sample unit.

C. If samples are being transported by FedEx, verify the time of pick-up of samples on the day of slaughter, in order to have the samples packaged and ready to go.



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- D. IPP are to use aseptic techniques and perform the following step-by-step procedures:
  - i. Wash and sanitize hands;
  - ii. Sanitize work surfaces (surfaces that will contact supplies *while the supplies are being gathered*);
  - iii. Gather the supplies;
  - iv. Label the sample container;
  - v. Wash and sanitize hands again;
  - vi. Take supplies to the sampling location;
  - vii. Sanitize work surfaces (surfaces that will contact supplies during sampling);
  - viii. Lay out supplies;
  - ix. Open the large sterile bag; and
  - x. Put on the sterile gloves (see Attachment B How to put on sterile gloves).



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#### III. COLLECTING THE SAMPLE (YOUNG CHICKEN CARCASS RINSE)

A. IPP are to notify official establishment management just before collecting each sample that a routine *Salmonella* or *Campylobacter* sample is being collected as a verification sample.

- B. At the time selected, IPP are to randomly select a carcass from the post-chill area after all interventions have taken place and after sufficient drip time to prevent dilution of the sample. IPP are to select a carcass and then count back or ahead 5 carcasses and select the next carcass for sampling (to avoid any possible bias during selection). If the sixth carcass is not a whole bird (e.g., untrimmed, with or without neck), count back or ahead an additional 5 carcasses for sample selection. Repeat until a whole carcass is available.
- C. In establishments where the end location of the drip line makes removing a carcass from a moving line unsafe for IPP, IPP are to pull the sample at the chiller exit, directly from the conveyor belt. If the establishment has temporarily altered the location of its normal final antimicrobial intervention because of an unforeseen event (e.g., equipment malfunction), IPP are to select a carcass after the new intervention step.
- D. IPP are to take the randomly selected carcass and allow excess fluid to drain without contaminating any sterile items.
- E. IPP are to allow a minimum of one minute drip time for poultry carcasses prior to rinsing or swabbing. During this time, IPP are to be careful to avoid cross-contamination.
- F. IPP are to rinse the carcass with chilled nBPW (See <u>Attachment C How to rinse a Young Chicken carcass</u>).
  - 1. Place the carcass in the bag (neck first);
  - 2. Place the bag with the carcass on the flat sanitized surface;
  - 3. Gently invert the sampling broth container three (3) times immediately prior to adding the sampling broth to the chicken carcass. Open the container and pour the sampling broth into the carcass cavity in the bag;
  - 4. Expel the excess air from the bag, twist it closed, and fold the twist over;
  - 5. Mix the broth through the carcass cavity and outside of the carcass for one minute;
  - 6. Place the bag with the chicken on the sanitized flat surface with the top of the bag facing up;
  - 7. Carefully open the plastic bag containing the bird without touching the inside of the bag or the inside corners;



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- 8. Work the plastic bag down around the carcass and firmly grip one leg, without touching the inside of the plastic bag;
- 9. While holding the bag with one hand, carefully remove the bird from the bag with the other hand; and
- 10. Place the bird back on the conveyor or table.

**NOTE:** Rinsing the carcass with potable water is not necessary prior to placing the bird back on the conveyer or table.

- G. IPP are to prepare the sample for shipping. It is acceptable to remove the gloves at this time; however, IPP are continue to work in an aseptic manner and perform the following step-by-step procedures:
  - 1. Remove the screw-cap from the sterile sample container and put the cap in the small resealable bag;
  - 2. Open the large bag and aseptically pour 100 ml of rinsate into the sample container;
  - 3. Take the screw-cap out of the small resealable bag and close the sample container. Avoid touching the inside of the lid so that it does not contaminate the sampling broth. Ensure that the lid is correctly threaded and tightened, but do not over-tighten. Tape or other material should not be applied to seal the jar;
  - 4. Dry the outside of the sample container. Place the sample container in the small resealable bag, expel excess air, and seal the bag; and
  - 5. Discard all remaining liquid from the carcass rinse bag; do not share remaining rinsate with establishment personnel.
  - 6. Return the chicken to the chill tank or to where the bird was collected.
- H. The sample is now complete. Follow the storage and shipping instructions in <u>Chapter IV Submitting the collected sample.</u>



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### CHAPTER 4: SALMONELLA AND CAMPYLOBACTER SAMPLING PROCEDURES FOR YOUNG TURKEYS

#### I. PREPARING TO COLLECT A SAMPLE

A. IPP are to check availability of supplies:

- 1. Designate an area for preparing and gathering sampling supplies. A small tote or caddy carried to the location of sampling could be used for transporting supplies and supporting sample bags to which IPP are adding sterile solutions;
- 2. Open shipping container and check the office to ensure that all the supplies needed for sample collection are inside or in the inspectors' office. Remove the supplies from the container. These can be stored in the government office. Inspectors are to verify the proper sample supplies and sampling forms for the laboratory are available.
- 3. General supplies for sample collection (e.g., sample collection bags, sterile gloves); and the specific materials for the type of sample to be collected (e.g., templates and specimen sponges for turkey carcass samples or bags and nBPW for carcass rinses);
- 4. Collect the sanitizing solution, if needed;
- 5. Sanitize the cart, caddy¹, tote¹, or other designated work area surfaces by spraying the Lysol ® Food Surface sanitizer over the caddy until wet, then letting air dry. Alternatively, wipe with a clean disposable cloth or paper towel dipped in freshly prepared 500 parts per million (ppm) sodium hypochlorite solution (0.05% sodium hypochlorite) or other approved sanitizing solution that provides the equivalent available chlorine concentration. If IPP use a sodium hypochlorite solution, they are to make it just prior to use, since its strength diminishes upon standing. To make the solution, IPP are to add 2-4 oz of sodium hypochlorite (Purex® or its equivalent)¹ to one gallon (128 oz) of potable water. This will give a strength of 500-1000 ppm hypochlorite. The sample work area surfaces must be free of standing liquid before sampling supplies or product containers are placed on them.
- 7. Place gel packs in the freezer and place the open shipping container in the cooler/refrigerator to pre-chill. IPP are to ensure sample security prior to shipping to the laboratory and are not to expose the sample box to excessive heat while at the establishment. The laboratory will discard rinse samples that arrive above 15°C (59°F) and will cancel Campylobacter testing if the sample is received below 0°C (32°F).
- B. IPP are to select a time at which to collect the sample:
  - 1. Determine the times that chilled carcasses will be available at the end of the drip line, or at the last readily accessible point before packaging or cut-up (or the equivalent in air-chill or hot-bone operations), and then randomly select the time from within that time frame for collecting the sample.



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- 2. IPP are to select a chiller or line from which to collect the sample. If more than one chiller system is in operation at the time of sample collection, IPP are to randomly select the chill tank from which to take the sample. IPP are to determine a safe, appropriate point from which to collect the sample unit.
- C. Verify the time of pick-up of samples on the day of slaughter, in order to have the samples packaged and ready to go.
  - D. IPP are to use aseptic techniques and perform the following step-by-step procedures:
    - 1. Wash and sanitize hands;
    - 2. Sanitize work surfaces (surfaces that will contact supplies *while supplies are being gathered*);
    - 3. Gather the supplies;
    - 4. Make sure that one sponge bag is labeled with an "S" and the other one with a "C";
    - 5. Wash and sanitize hands again;
    - 6. Take supplies to the sampling location;
    - 7. Sanitize work surfaces (surfaces that will contact supplies *during sampling*);
    - 8. Lay absorbent towels or sanitized rack on work surface to prevent the carcass from slipping;
    - 9. Lay out supplies; and
    - 10. Put on the sterile gloves (see Attachment B How to put on sterile gloves).

#### IV. COLLECTING THE SAMPLE (SPONGE SAMPLE)

- A. At the time selected, IPP are to randomly select a carcass from the post-chill area after all interventions have taken place and after sufficient drip time to prevent dilution of the sample. IPP are to select a carcass and then count back or ahead 5 carcasses and select the next carcass for sampling (to avoid any possible bias during selection). If the sixth carcass is not a whole bird (e.g., untrimmed, with or without neck), count back or ahead an additional 5 carcasses for sample selection. Repeat until a whole carcass is available.
- B. In establishments where the end location of the drip line makes removing a carcass from a moving line unsafe for IPP, IPP are to pull the sample at the chiller exit, directly from the conveyor belt. If the establishment has temporarily altered the location of its normal final antimicrobial intervention because of an unforeseen event (e.g., equipment malfunction), IPP are to select a carcass after the new intervention step



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- C. IPP are to take the randomly selected carcass and allow excess fluid to drain without contaminating any sterile items. Do not touch the back or thigh areas.
- D. IPP are to allow a minimum of one minute drip time for poultry carcasses prior to rinsing or swabbing. During this time, IPP are to be careful to avoid cross-contamination.
- E. IPP are to sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D How to prepare the sponge and template for sample collection; Attachment D How to sponge a carcass (General); and Attachment E How to sponge a Young Turkey carcass)
  - 1. Place the turkey breast-down on the work surface. Do not let sample sites (back and thigh; see <u>Sample Sites for Salmonella Testing of Turkey Carcasses</u> below) touch any surfaces;
  - 2. Remove and discard gloves;
  - 3. Open sponge bag;
  - 4. Gently invert the smaller sampling broth container marked "S" three (3) times immediately prior to opening the container and pouring the sampling broth marked "S" into sponge bag marked "S;"
  - 5. Set empty broth container aside;
  - 6. Close bag and massage sponge;
  - 7. Push sponge to top of bag and then open bag; set bag aside on a sanitized surface;
  - 8. Open template bag and set aside on a sanitized surface;
  - 9. Put on second pair of gloves;
  - 10. Remove sponge;
  - 11. Remove template;
  - 12. Lay the template over the back sampling area and hold it to the left of the vertebral column (see <a href="Sample Sites">Sample Sites for Salmonella and Campylobacter Testing of Turkey Carcasses</a> below). Do not touch the sampling area;



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- 13. Hold template with one gloved hand and use other gloved hand to wipe area with sponge;
- 14. Do 10 vertical wipes over entire sample surface; then do 10 horizontal wipes over entire sample surface;
- 15. Lay the template over the left thigh (see <u>Sample Sites for Salmonella</u> and <u>Campylobacter Testing of Turkey Carcasses</u> below). Do not touch the sampling area;
- 16. Hold template with one gloved hand; use other gloved hand to wipe area with sponge;
- 17. Turn sponge over to use its unused side for the thigh;
- 18. Wipe 10 times vertically over the entire sample surface; and 10 times horizontally over entire sample surface;
- 19. Place the sponge in the Whirl-Pak® bag (marked with an "S") and seal the bag;
- 20. Discard the template;
- 21. Repeat steps 4-19 for the right side with the supplies marked "C;" and
- 22. Place the bird back on the conveyor or table.

**NOTE:** Rinsing the carcass with potable water after sampling is not necessary.

F. The sample is now complete. Follow the storage and shipping instructions in <u>Chapter IV – Submitting the collected sample.</u>



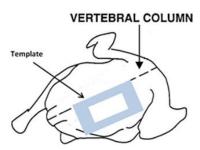
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#### Sample Sites for Salmonella and Campylobacter Testing of Turkey Carcasses:

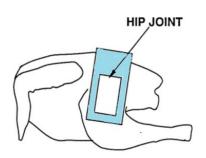
#### Back

Locate the tail. The area to sample (5 cm x 10 cm) starts just above the tail and extends forward along either side of the vertebral column. Two separate samples are taken individually, with one template and sponge used just to the left of the vertebral column, and the other template and sponge used just to the right of the vertebral column.



#### Thigh

Locate the hip joint. The area to sample (5 cm x 10 cm) starts at the hip joint and extends to cover the thigh area.





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## Chapter 5: Salmonella and Campylobacter Sampling Procedures for Chicken Parts (Legs, Breasts, and Wings Only)

#### I. PRODUCT ELIGIBLE FOR SAMPLING

A. Products eligible for sample collection under the chicken parts sampling project include raw chicken legs, breasts, and wings that would typically be available for consumer purchase. These products can be skin-on or skinless and can be bone-in or boneless. Eligible parts can be mechanically tenderized, vacuum tumbled, or injected or otherwise marinated or coated in solutions or dry spice mixtures, but cannot be breaded, stuffed, or wrapped in dough, as noted previously. Cut-up chicken parts are eligible for sampling provided they are equal to or larger than 3/4 inch in size in at least one dimension and are of a type that would typically be available for consumer purchase. Photographic images representative of typical chicken parts and subparts are available as a List of Chicken Parts Eligible for Sample Collection accessible through IPP Help (under Sampling). IPP are to review definitions below of the parts to ensure that the parts selected for sampling are accurately documented in PHIS:

- 1. For legs, whole legs (no backbone attached), drumsticks, thighs, thighs with backbone attached, and cut up or portioned leg meat (3/4 inch or larger in at least one dimension) are eligible for sampling;
- 2. For breasts, whole and half breasts (with or without ribs), boneless and skinless chicken breasts, tenderloins and tenders, and cut up or portioned breast meat (3/4 inch or larger in at least one dimension) are eligible for sampling; and
- 3. For wings, whole wings (with or without the wing tip), mixed wing sections, drummettes, mid-sections (flats), wing tips, and boneless wings are eligible for sampling.
- B. Chicken half carcasses and chicken quarter carcasses are not currently eligible for collection under this sampling program. The following products are not eligible because they are chicken quarters:
  - 1. Leg quarters which consist of a thigh and drumstick, with a portion of the back attached;
  - 2. Breast quarters which consist of half a breast with the wing and a portion of the back attached;
  - 3. Breast quarters without wing that consist of a half a breast with a portion of the back attached; and
  - 4. The entire carcass that has been cut into four equal parts.



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- C. Only finished products are eligible for sampling. Finished products are the products that are shipped from the establishment. Eligible chicken parts are identified in PHIS in the finished product group as "Poultry Parts (legs, breasts, wings ONLY)" and "Injected, Tenderized, or Vacuum Tumbled Parts (legs, breasts, wings ONLY)". IPP are not to sample source material or intermediate product and are not to request that an establishment cut up whole chickens for chicken parts sampling.
- D. If a chicken part is of a type that would typically be available for consumers and is produced in an establishment, it is eligible for sampling even if it is not being packaged for consumer purchase by the establishment being sampled.
- **Example 1**: An establishment produces boneless, skinless chicken breasts as a finished product, which is a product type typically available for consumers. The establishment packages and ships all the boneless, skinless chicken breasts for hotels, restaurants, or similar institutions (HRI). The product is eligible for parts sampling.
- **Example 2:** An establishment produces raw bone-in chicken thighs as a finished product, which is a product type typically available for consumers. Some of the product is packaged in consumer-ready packaging while the rest is shipped for further processing into a not ready-to-eat (NRTE) product. All of the product is eligible for sampling regardless of where it is being shipped.
- E. Parts that are portioned only (packed into smaller packages without any additional processing (examples of processing: cut-up, application of interventions) or repackaged only are not eligible for sampling.
- F. Chicken parts produced at establishments that slaughter and further process or at establishments that further process (but do not slaughter) are eligible for sampling. For example, if source material received at a further processing establishment is deboned, marinated, or cut up into eligible chicken parts, IPP are to sample finished chicken parts at the further processing establishment.

#### II. COLLECTING THE SAMPLE (PARTS RINSE)

- A. Additional details and guidance concerning sample collection are accessible through <u>IPP</u> Help.
- B. IPP are to collect a rinsate from 4 lbs.  $\pm$  10% (3 pounds, 10 ounces to 4 pounds, 6 ounces) of the specified raw chicken parts. Collect the rinsate from the eligible chicken parts immediately after collection of the parts. IPP are not to hold the chicken parts under refrigeration overnight prior to collecting the rinsate.



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- C. To choose and collect the parts to be sampled, IPP are to:
  - 1. Randomly select which available eligible chicken parts (legs, breasts, and wings) to sample. If an establishment produces more than one type or subtype of eligible chicken part, then IPP are to alternate sampling of the parts each sampling task to ensure that all products are collected during the sampling project. If an establishment produces both eligible intact and eligible non-intact chicken parts, IPP are to alternate sampling of intact and non-intact parts;

**NOTE**: Randomization of parts selection is critical to achieve sample variety.

- 2. Collect only one chicken part subtype per sampling event. For example, if IPP are collecting chicken breast tenderloins, they are to collect only chicken breast tenderloins and not a mixture of other breast pieces or other parts such as legs;
- 3. Collect and place into the sampling bag a sufficient number of eligible chicken parts to total 4 lbs.  $\pm$  10% (3 pounds, 10 ounces to 4 pounds, 6 ounces) in weight. Avoid transferring excess processing liquid when placing the chicken parts in the sampling bag;
- 4. Place the bag with the parts on the flat sanitized surface;
- 5. Gently invert the sampling broth container three (3) times immediately prior to adding the sampling broth to the chicken parts. Open the container and pour the sampling broth onto parts in the bag;
- 6. Expel the excess air from the bag, twist it closed, and fold the twist over;
- 7. Mix the broth with the parts for one minute;
- 8. Place the bag with the chicken parts on the sanitized flat surface with the top of the bag facing up;
- 9. Carefully open the plastic bag containing the parts without touching the inside of the bag or the inside corners;
- 10. Carefully pour approximately 120 ml of the sampling broth into the specimen jar. Important: Do not allow the bag to touch the sterile specimen jar. Securely close the specimen jar with the screw-top lid. Avoid touching the inside of the lid so that it does not contaminate the sampling broth;



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- 11. Discard any remaining rinse fluid into a drain. Do not discard the chicken parts. Rinsing the parts with potable water is not necessary. Return the parts to where you initially collected them unless the establishment requests otherwise; and
- 12. Refrigerate the sample promptly after collection. IPP are to hold the rinsate in a refrigerator set at 40° F or lower and under VAAFM control until the samples are shipped. IPP are not to freeze samples.

### Chapter 6: Salmonella and Campylobacter Sampling Procedures for the NRTE Comminuted Poultry

#### I. PRODUCT ELIGIBLE FOR SAMPLING

A. IPP are to collect products in the "Ground Product" and "Other Comminuted" product groups (for example, fresh raw sausage and fresh raw patties), randomly selecting from available eligible raw ground and other comminuted (but not mechanically separated) products. Comminuted products containing added ingredients such as spices, seasonings, rosemary extract, or vegetables (but not other raw meat or poultry) are eligible for sampling.

**EXAMPLE:** If an establishment produces ground chicken with an average daily production volume of greater than 1,000 pounds but produces other raw comminuted chicken products such as raw chicken sausage with an average daily production volume of less than 1,000 pounds, then IPP are to schedule only ground chicken (and not the other raw comminuted products) for collection.

- B. The following products are not eligible for sampling under this project:
  - 1. Injected, needle- or blade-tenderized, or vacuum tumbled raw poultry parts or carcasses, because they are not considered to be NRTE comminuted poultry;

**NOTE**: If the injected, needle-tenderized, or vacuum tumbled product is subsequently processed in the same establishment to reduce particle size, such as by grinding or other process, then the raw comminuted products manufactured from these non-intact source materials would be eligible for sampling. For example, if injected chicken breast trimmings are source materials used in raw ground poultry, then the raw ground poultry itself (but not the trimmings) is eligible for sampling.

2. Mixed-species NRTE comminuted poultry products (for example, raw sausage containing both raw ground turkey and raw ground pork or containing both raw ground chicken and



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raw ground turkey);

- 3. Diced, chunked, or sectioned poultry that is not in small pieces or that is otherwise not comminuted. In general, this would refer to pieces 3/4 inch or greater in any dimension;
- 4. Hand- or mechanically-deboned products that are not further chopped, flaked, minced, or otherwise processed to reduce particle size;
- 5. Whole muscle parts because they are not comminuted;
- 6. Poultry trimmings because they are not comminuted;
- 7. Comminuted poultry that is portioned (product from a larger package broken down into smaller packages but not cut-up or otherwise processed) only or repackaged only;
- 8. Any NRTE finished product containing comminuted poultry that has been cooked or heat-treated (for example, in the HACCP processing category "Heat-treated but not Fully Cooked Not Shelf Stable"); and
- 9. Dumplings, wontons, potstickers, eggrolls, pelmeni, or other comminuted chicken or turkey products wrapped in dough or other similar covering (nor their source material when these are the final products in the establishment).

#### II. SAMPLE COLLECTION (COMMINUTED PRODUCT)

- A. IPP are to randomly collect eligible raw comminuted poultry samples by product group.
- B. IPP are to collect finished product in its final package whenever possible. IPP are to collect the appropriate number of packages so that the sample equals two pounds or may collect a slack-filled package for larger products. IPP are to place the product collected in its final packaging in the larger, non-sterile bag provided with the sampling supplies.

**NOTE:** IPP are not to use the Whirl-Pak® bags when collecting product in its final packaging.

C. For finished product not available in final packaging or when the package is too large, IPP are to collect the sample aseptically, as close to the finished process as possible, after all antimicrobial interventions have been applied. IPP are to collect the samples as close to packaging as possible (e.g., grab the sample from a combo bin or grab from a 40-pound box) and use the sterile Whirl-Pak® bags as instructed below in II.E.



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D. IPP are to use only the sampling and shipping materials provided by the office specific to the NRTE comminuted poultry sampling project; IPP are not to use spoons or other implements to collect a sample other than what is included in VAAFM-provided sampling supplies.

- E. When using the Whirl-Pak® bags, IPP are to:
  - 1. Randomly select product to sample;
  - 2. Collect sufficient product to fill the two provided Whirl-Pak® bags up to the fill-line indicated on each bag. When the bag is closed, product should meet the line indicated on the bag, as illustrated in the photo-led instructions in <a href="IPP Help">IPP Help</a>. IPP are not to overfill the bag. The total weight of the two bags of samples should be approximately two pounds; and
  - 3. Ensure that each Whirl-Pak® bag is properly closed. To do this, IPP are to carefully squeeze out the air remaining in the bag and tightly fold over the top at least four times as trapped air and loose closures may lead to leakage. When folding over the tops of each bag, IPP are to ensure that they do not touch the bag near its opening. Next, IPP are to fold over the side tabs to secure the folds in place and to not tie the ends. This process is to be repeated for the second bag.
- F. IPP are to place both Whirl-Pak® bags in the same secondary containment bag (zipper-lock type bag), expel excess air from the bag, and close the containment bag using the zipper lock closure.

### CHAPTER 7: SALMONELLA SAMPLING PROCEDURES FOR GROUND BEEF AND BEEF TRIM

#### I. PRODUCT ELIGIBILITY FOR SAMPLING

- **A.** Establishments that produce less than 1,000 pounds of raw ground beef products (Low volume raw ground beef) in a typical day's production are sampled for *Salmonella* when sampled for *E. coli O157H7* testing, and are not to be sampled under the *Salmonella* Performance standards ground beef sampling program.
- B. The frequency will be based on FSIS' Guidance to the states on the average frequency of testing done at very small federal establishments. In addition, VT reserves the right to alter the frequency at any given establishment based on information from, but not limited to, inspection activity, sampling results, and food safety assessments, in order to tailor the verification sampling program to address any



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- perceived increase in risk. The frequency of this testing mirrors that of the frequency for *E. coli O157:H7* and STEC testing.
- C. An establishment is excluded from sampling when the establishment either processes all product in a product class into RTE product or moves all product from a product class to another official federally-inspected establishment for further processing into an RTE product
- D. Products of any product class diverted for pet food manufacture without the mark of inspection are not subject to VAAFM sampling.

#### II. COLLECTING THE SAMPLE

a. The IIC should refer to the VT Protocol for E. coli O157:H7 and STEC in taking requested samples.

### CHAPTER 8 – SUBMITTING THE COLLECTED SAMPLE (ALL PRODUCT CLASSES)

#### I. PACKAGING THE SAMPLE

- A. IPP are to allow the samples to cool down by refrigerating for one hour prior to packing, if this does not delay shipment by the carrier.
- B. IPP are to ensure that the sample container (bags or jars) are correctly closed. Jar lids must be correctly threaded and not over-tightened to prevent leaking. Also ensure the outside of the sample container is dry. Dry out the inside of the shipping container (box) completely.

**NOTE:** The laboratory will discard samples if the containers are leaking.



Example of a cross-threaded rinse container that leaked during shipment.

C. Place the sample container inside a large ziplock bag to contain any leaks that may occur during transport.



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D. IPP are to place the frozen gel pack in the bottom of the refrigerated shipping container, then place the corrugated cardboard pad on top of the gel pack to prevent the sample from coming in direct contact with the frozen gel pack. This barrier prevents portions of the sample from freezing, which would have an impact on the sample results.

E. IPP are to place the cooled sample (sponge, rinsate, or raw ground or comminuted product) on top of the cardboard pad. IPP are to use only the sampling and packing supplies provided by the office. IPP are not to tape or wrap the sample, or to fill the sample box with newspaper or similar packing materials and are not to use staples in any element of the package.

- F. During certain months, additional gel packs should be included to assist in maintaining proper sample temperature. IPP are to pack the sample in one of the ways described and illustrated below:
  - 1. Gel packs on top and bottom: Place the absorbent pad in the bottom of the box, followed by gel coolant pack(s), one cardboard separator, sample(s) inside the containment bag, one cardboard separator, gel coolant pack(s), and then the foam plug on top; or
  - 2. Gel packs on opposite sides: Within the box, place the absorbent pad in the bottom of the box. On top of this, place gel coolant pack(s) standing upright (against the side of the box), one cardboard separator, samples(s) inside the plastic containment bag, one cardboard separator, and gel coolant pack(s) standing upright (against the opposite side of the box).

### PACKING THE SHIPPING CONTAINER:

When multiple gel packs are used, package the sample as shown in the images.





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G. IPP are to pack the sample in the shipping container as close to the expected courier pickup time as possible. The shipping container itself should not be used as a refrigerator. However, multiple samples for that day (if needed) may be stored in the open shipping container that is placed in a cooler or refrigerator. IPP are never to store packed and prepared sample boxes near areas exposed to excessive heat or allow them to go below  $32^{\circ}F$  ( $0^{\circ}$  C).

**NOTE:** The laboratory will discard samples that arrive above 15°C (69°C) or *Campylobacter* testing will be cancelled if below 0°C (32°F). Some target bacteria may be damaged by temperatures that are too cold, while temperatures that are too warm can allow competing bacteria to outgrow the targets. Maintaining samples at improper temperatures may contribute to loss of viable target bacteria.

- H. Sample Security (see VT Directive 7355.1): Vermont sample container seals will need to be applied as follows: The small bar code seal will need to be applied to the sample form and to the immediate sample containers. The long narrow seal is to be applied over the opening of the bag containing the sample.
- I. Place the sample form into a ziplock bag to ensure the form stays dry. Place this in the shipping container. (The laboratory forms are pre-filled with establishment and testing information. The inspector should fill the sample information, not forgetting to indicate the product code (product codes can be obtained from the office if needed)).
- J. IPP are to close the box flaps so that the container is secure, apply tape (minimal amount) to keep the flaps closed, and then apply the VAAFM Laboratory Sample Container Seal (FSIS Form MI-84 A) across an outer flap of the shipping container as described in VT Directive 7355.1 *Use of Sample Seals for Laboratory Program Samples and Other Applications*. This is so the lab knows that the box has been properly sealed at a glance.

#### II. SHIPPING THE SAMPLE

- A. IPP are to ensure sample security is maintained at all times (see VT Directive 7355.1).
- B. Once a date is determined for sampling, please contact the Administrative Services Coordinator. She will schedule a pick-up and send a shipping label (if needed).
- C. IPP can ship the refrigerated sample via FedEx. Samples are to be scheduled for pick up and are to be shipped on the *same calendar day* the sample is collected, when possible. IPP are to hold any sample overnight that they randomly select too late in the day, and after FedEx is no longer available for pick-up the same calendar day. For example, samples collected from late production, are to be held overnight under refrigeration and sent by courier the next calendar day.

**NOTE:** Samples not received the day following the day of shipment will be discarded by the laboratory. All dates on the sampling form shipped with the sample must be accurate.



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### CHAPTER 9 – RAW PRODUCT DESTINED FOR READY-TO-EAT PRODUCT EXCLUDED FROM SALMONELLA TESTING

#### I. CIRCUMSTANCES IN WHICH SAMPLING IS NOT WARRANTED

A. An establishment meets the criteria for exclusion when the establishment either processes all product in a product class (e.g., young chickens) into RTE product or moves all product in a product class to another official State-inspected establishment for further processing into RTE product.

B. For example, an establishment slaughters young chickens and produces not ready-to-eat (NRTE) ground chicken as one of its products. The establishment ships all of its NRTE ground chicken product to another establishment that uses it to make an RTE product. In this situation, IPP are not to sample the NRTE ground chicken; however, if any raw products are not destined for RTE product in an official establishment, the young chicken carcasses would still be eligible for *Salmonella* sampling.

#### II. IPP VERIFICATION RESPONSIBILITIES

#### A. If the establishment:

- 1. Processes all product or all product from a particular product class into RTE product; or
- 2. Moves all product or all product from a particular product class to another official state inspected establishment for further processing into RTE product;

IPP are to verify during the performance of the associated HACCP procedure that the intended use of all the product the establishment produces is for processing into RTE product (9 CFR 417.2(a)(2)). If an establishment meets the criteria in Section II.A.1., above, all raw products in that product class would remain in the establishment to be further processed.

#### B. IPP are to verify by:

- 1. Observing that all the product moves to be further processed into RTE product in the establishment; or
- Reviewing records to ensure that all products are further processed into RTE products in the establishment. Records may include those containing production codes or production lot codes.

C. In establishments that claim to meet the criteria in Section II.A.2., above, IPP are to review the establishment's HACCP plan and hazard analysis for the intended use of the products and are



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to verify that the establishment has procedures incorporated in its food safety system that effect the movement of all product from that product class to another state-inspected establishment at which the product is further processed into RTE product.

- D. Some acceptable ways that IPP could verify that the establishment has necessary procedures incorporated into its food safety system include:
  - 1. The establishment maintains records showing that the official establishment receiving the raw product processes all of the product into RTE product, such as a copy of HACCP records showing the product meets a lethality Critical Control Point (CCP) matched with bills of lading with corresponding production codes;
  - The establishment receives letters of guarantee showing that all product from a particular product class is further processed into RTE product and maintains on-going communication with the receiving establishment to verify that all its product is being processed as RTE; and
  - 3. The establishment has a contractual agreement with the receiving establishment so the producing establishment has knowledge of the receiving establishment's production process.
- E. Some insufficient procedures would include:
  - 1. The establishment only labels the raw product with a statement "for further processing"; and
  - 2. The establishment only maintains a letter from the receiving establishment that says it only produces RTE, without the receiving establishment gathering additional information to verify that all product is processed into RTE product in an official establishment.
- F. If an establishment does not have procedures incorporated into its food safety system that effect the movement of all product to another state-inspected establishment at which the product is further processed into RTE product, then the establishment is still subject to the traditional sampling under the *Salmonella* verification testing program. IPP are to be aware that it is the responsibility of the establishment to maintain sufficient documentation to support the establishment's assertion that the product in question is further processed into RTE product.

**NOTE:** NRTE products destined to other than domestic, state-inspected establishments for processing into RTE products do NOT meet the criteria in Section II.A.2. above. Examples of such establishments include foreign, federally inspected, or food service establishments, including hotel, restaurant, institution (HRI) facilities.



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G. If an establishment produces more than one lot of NRTE ground beef and ships the product to different establishments, and one of the establishments produces NRTE products, IPP are to sample product under the *Salmonella* verification testing program. Some of the product produced from the product class (e.g., NRTE ground beef) goes to at least one establishment that uses it for NRTE product. In this situation, IPP are not to differentiate between the product going to establishments producing the RTE product versus the product going to establishments producing the NRTE product when taking a sample.

#### III. ADDITIONAL INSTRUCTIONS FOR IPP

A. Should an establishment NOT meet the criteria in Section II. A. above and produce both RTE and NRTE end products of a single product class, IPP are to make two entries for the product class in the establishment profile; and

- 1. Check the 'RTE' intended use box in the establishment profile on one of the entries; and
- 2. NOT check the 'RTE' intended use box in the establishment profile on the other entry.
- B. Should an establishment meet the criteria in Section II.A. above and produce ONLY RTE end products of a single product class, IPP are to:
  - 1. Make a single entry for the product class in the establishment profile; and
  - 2. Check the 'RTE' intended use box in the establishment profile for that product;

**NOTE:** This establishment will NOT be scheduled for verification sampling.

C. If IPP determine that an establishment no longer processes all raw product from a particular class into RTE product, or no longer moves all raw product from a particular class to another official state-inspected establishment for further processing into a RTE product, then IPP are to update the entries in the establishment profile and let the meat inspection office know.

### CHAPTER 10- REPORTING OF SALMONELLA AND CAMPYLOBACTER SAMPLING RESULTS

#### I. Individual Samples and Actions

A. The Laboratory reports the *Salmonella* and/or *Campylobacter* positive samples to the VT Meat Inspection Office. Serotype data for *Salmonella* positive samples is added later once updated information becomes available, and entered into PulseNet.



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- B. The official result is reviewed by the Head of Service, Chief or designee, and entered into the establishment's salmonella sampling folder. The result is entered into the color coded spreadsheet on Sharepoint. The office notifies the inspector and the establishment of the positive result as each individual test becomes available.
- C. Plan of Action for positive result Poultry <u>individual samples during Periodic Sampling</u>
  1. When the number of positive samples reaches:

a. Salmonella

Young chicken: 3 positive samples in a 12 month period.

Young turkey: 2 positive samples in a 12 month period

b. Campylobacter:

Young chicken: 6 positive samples in a 12 month period Young turkey: 3 positive samples in a 12 month period

the in-plant inspection team increases verification activities of sanitation and process control activities. In addition, the plant may receive an observation visit by the chief of inspection or the EIAO to evaluate the steps the plant is or is not taking to address the positive samples.

2. The Meat Inspection Office keeps lines of communication open with the plant and IIC in relation to their plan of action.

The VT Meat Inspection service reserves the right to initiate an ongoing *Salmonella/Campylobacter* performance measures sampling based on testing results.

### II. Completed Set Reports IF AN ESTABLISHMENT IS ELIGIBLE FOR ONGOING SAMPLING

A. When sufficient samples to complete a moving window have been analyzed for pass or fail status, a completed letter summarizing all individual pass and fail sample results, as well as the pass or fail outcome of the entire number of samples, will be mailed to the establishment.

B. IPP are not to issue a Noncompliance Record (NR) exclusively because of a failed *Salmonella* or *Campylobacter* verification set.

**NOTE**: Enforcement, Investigations, and Analysis Officers will review these sampling results in depth during any Food Safety Assessment conducted at the establishment per VT PHIS Directive 5100.4, Prioritized Scheduling of Food Safety Assessments Using the Public Health Information System. Also, establishments that have a higher number of positives in a moving window than is allowed by the performance measures, move up in priority to be scheduled to receive an FSA. The moving window of sampling will continue.



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### III. Salmonella and Campylobacter EOS Letters IF AN ESTABLISHMENT IS ELIGIBLE FOR ONGOING PERFORMANCE BASED SAMPLING

A. Upon completion of the *Salmonella* verification set, the Agency provides detailed information about *Salmonella* serotypes that are associated with human illness in the *Salmonella* EOS letters that are sent to establishments. The EOS letter provides information about the results of the last two completed sample sets. This information includes positive and negative test results, as well as available information about the serotype, PFGE-based information, and public health ranking of the isolates. The letter specifically includes information on serotypes that are commonly associated with human illness, as well as other subtypes of potential public health concern. An EOS letter example is found in Attachment I - End of Set Letter Example.

B. In addition, for Young Chicken and Young Turkey sets, the EOS letter includes *Campylobacter* results.

C. IPP are to be aware that in addition to assessing process control through analysis of results, VAAFM identifies *Salmonella* subtypes. VAAFM considers that isolates with subtypes historically associated with human illness are more likely to cause human illness than those without such a history. The Agency has said that establishments that repeatedly produce product with *Salmonella* subtypes of public health concern are of high priority for a FSA (see VT Directive 5100.4 and VT Directive 10250.2)). VAAFM considers information on subtypes to be very important for protecting the public health. It provides information on subtypes to establishments through *Salmonella* EOS letters for them to use in their food safety decision-making processes.

**NOTE**: Since FSIS has not established a performance standard for *Salmonella* subtypes, this information is not used to determine whether the establishment has passed or failed the *Salmonella* verification set.

D. IPP are to be aware that the fact that isolates have subtypes historically associated with human illness does not automatically implicate the sampled product as the cause of any human illness or necessarily mean that the establishment's food safety system is ineffective. VAAFM will determine these specific associations through an epidemiological investigation or an FSA.

E. IPP are to be aware that the EOS letters include the following sections: (See Attachment I - End of Set Letter Example)

1. **Process Control:** This section states whether an establishment has maintained consistent process control. The "Summary Results from Last Two Sampling Sets" table identifies the product tested, date set completed, number of samples analyzed, number of Salmonella and Campylobacter (where applicable) positives, and current Salmonella process control category;



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- 2. **Public Health-Focused Evaluation of Isolates by Serotype:** This section provides detailed serotyping information from the establishment's last *Salmonella* verification set. This section includes the "*Serotype Results for the Most Recent Sampling Set*" table which provides the details of the serotype results for the current set as well as a brief explanation of the type of information provided in the table;
- 3. **Discussion of Compiled Set Results:** This section provides a brief explanation of the information provided in the letter, including information on future *Salmonella* and *Campylobacter* (where applicable) verification testing scheduled at the establishment and Agency expectations.

F. IPP are to be aware that it may take several weeks after completion of the set before an EOS letter is issued.

**NOTE**: Unless instructed by the office, there is no follow-up verification for IPP to perform or enforcement action to take based on the information and results provided in the EOS letter. An Enforcement, Investigation, and Analysis Officer (EIAO) will verify the appropriateness of the establishment's response to the results in the next FSA performed at the establishment.



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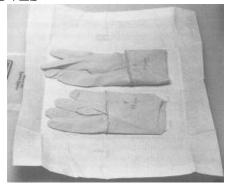
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#### **Attachment A**

#### HOW TO PUT ON STERILE GLOVES

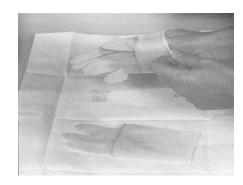
Step 1 First, wash and sanitize your hands to the midforearm. Dry your hands using disposable paper towels.

Position the glove package so that the letters L and R face you (L=left, R=right).



Step 2 When you first open the package, the gloves are folded, forming a cuff on the sleeve, and lying palm up. Leave the gloves in the package until you start to put them on.

Step 3 Hold one glove open by the inside cuff area. Insert your hand into the glove, palm side up, and remove the glove from the package.



Step 4 Pull the glove completely on with the ungloved hand and pull the cuff up without touching the outside surface of the glove with your ungloved hand.

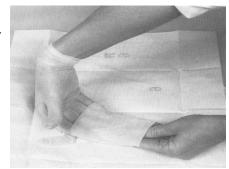




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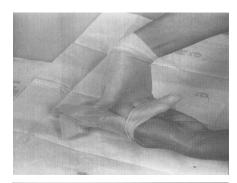
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Step 5 Repeat the previous steps with the other glove, with one key exception: do not handle the second glove by the inside cuff. If you do, the outside of the first sterile glove may contact your hand and wrist as you pull the second glove on. Even though you washed and sanitized your hands, they are not sterile. The correct way is to place your ungloved hand, palm up, into the second glove.



Insert the fingers of your gloved hand into the fold of the second cuff and ease the second glove on.

Step 6 Handle the second glove on the outside only and adjust the cuff on your wrist.





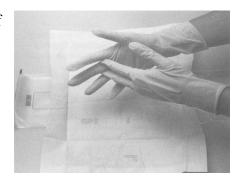


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Step 7 Once both gloves are on, you can touch the outside of a glove with the other gloved hand to adjust the fit.

If at any time you are concerned that a glove may have become contaminated, discard it and repeat the procedure for putting on sterile gloves.



#### **Attachment B**

#### Sampling Procedures for Young Chickens

The following is a list of the supplies for each young chicken sampling event under this notice:

Shipping container:

- 1-15" x 20", large sterile plastic bag
- 1- pair of sterile gloves
- 1-400 mL bottle of Buffered Peptone Water (nBPW)
- 1- quart resealable ziplock-type bag (secondary container)
- 1- VT Form 7355-2A/2B (Laboratory sample security seals)

Cardboard separators

Gel coolant packs

- 1. IPP are to refrigerate the nBPW container upon receipt. Ensuring that the nBPW is chilled is critical to this verification sampling procedure. Only use chilled nBPW.
- 2. Additional pairs of sterile gloves can be ordered from the Meat Inspection Office. IPP are to change disposable gloves whenever necessary, to prevent cross-contamination of birds and samples and are to avoid contamination of carcasses and rinse supplies.
- 3. At the post-chill sampling location, IPP are to determine a random time at which the carcasses will reach the end of the drip line, or the last readily accessible point prior to cut-up. IPP are to randomly select a poultry carcass from the post-chill area (after all interventions have taken place) and to allow drip time to prevent dilution of the sample.



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#### SPECIFIC PROCEDURES FOR COLLECTING YOUNG CHICKEN RINSATE

Step 1 IPP are to take all necessary precautions not to contaminate any of the sampling supplies and are to discontinue the sampling procedure if a contamination event occurs that would compromise the integrity of the submitted sample. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface.

Wash and dry hands.

Carefully open the large sterile bag. Do not contaminate the interior of the bag. The bag may lie on its side, opened, while you select the chicken carcass for sampling.

Put on a pair of sterile gloves as described in Attachment 1 – How to put on sterile gloves.

Step 2 Using one gloved hand, pick up the selected chicken carcass by the legs and allow any excess fluid to drain.

**NOTE**: For safety purposes, do not remove the chicken carcass from the shackle but collect it after it has dropped from the line.

With the other hand, pick up the open sample bag. Place the bird in the sample bag with the legs and vent toward the bag opening. Do not touch the inside of the bag with either hand.



Step 3 Rest the bottom of the bag on a flat surface.

Holding the top of the bag slightly open, uncap the nBPW container and pour its entire contents into the carcass cavity.

NOTE: when removing the lid of the nBPW container and after pouring the contents out, be sure to place the lid and the container on the sterile work surface so as not to contaminate the container and lid. The rinsate is poured back into this container after rinsing the bird.

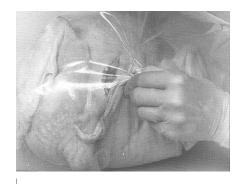




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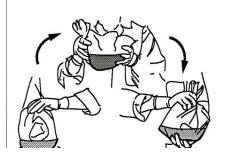
Step 4 Pick up the bag by the top and, through the bag, manipulate the loose neck skin on the carcass to position it over the neck bone to act as a cushion and prevent punctures to the bag.



Step 5 Expel most of the air from the bag, twist the top of the bag and fold the twist over. Firmly hold the bag closed.

While securely supporting the bird in the bag with your hands, rinse the entire carcass, using a repeated rocking motion to invert the bird 30 times (approximately 1 minute). To do this, hold the bird at the bottom of the bag with one hand and at the top of the bag with the other.

Keeping a secure grip on the bird, repeatedly invert your bottom hand slowly over the top. This procedure will ensure that all surfaces of the carcass, interior and exterior, are rinsed. As the bird is rinsed, a fluid "sloshing" sound should be heard.





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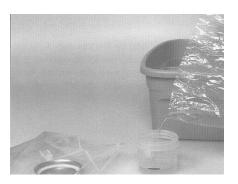
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- Step 6 Before collecting the 100 mL rinsate, aseptically remove the chicken from the sample bag by the following steps:
  - 1. Rest the bag on a flat surface;
  - 2. Carefully open the plastic bag containing the bird without touching the inside of the bag or the inside corners;
  - 3. Work the plastic bag down around the carcass so that you can firmly grip one leg, without touching the inside of the plastic bag;
  - 4. While holding the bag with the one hand, carefully remove the bird from the bag with the other hand; and
  - 5. Place the bird back on the conveyor or table.

**NOTE:** It is not necessary to rinse the carcass with potable water prior to returning it to the line.

Collect the 100 mL rinsate sample from the sample bag immediately by:

- 1. Using the "V" formed by the bag at the lower corner as a pouring spout, carefully pour the rinsate into the open jar, collecting as much of the nBPW rinsate as possible, but at least 100 mL, and
- 2. Placing the cap back on the jar and checking to be sure that the lid is securely in place.





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Step 7 Place the collected and labeled sample container in a ziplock-type bag, expel any excess air, and seal the bag.

Collected samples are to be refrigerated within five (5) minutes of collection and held under refrigeration and VAAFM control until shipment to the laboratory.

Repeat these steps above for each *Salmonella* sample request. Use a different carcass for each sample.





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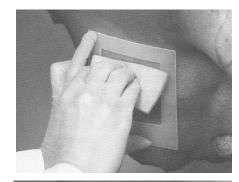
# **Attachment C**

## **HOW TO SPONGE A CARCASS (GENERAL)**

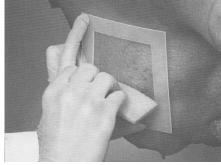
There are two methods to move the sponge across the sample surface for each direction:

## **Sponging Method One:**

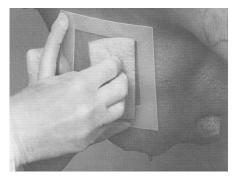
Firmly hold the sponge and wipe it across the surface in one direction. For vertical, wipe the sponge down. For horizontal, wipe it from left to right.



Lift the sponge and place it in the same beginning position and repeat wiping in the same direction across the sample site. Repeat this until it has been done 10 times.



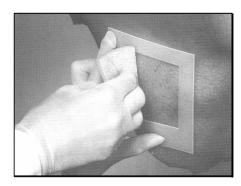
Then change to the other direction (horizontal or vertical) and follow the same steps using the same side of the sponge.





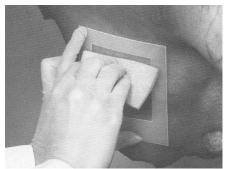
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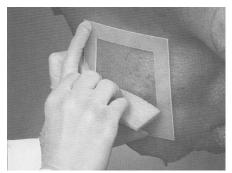
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## **Sponging Method Two:**

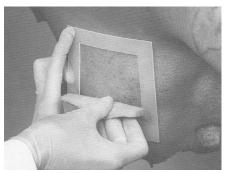
Firmly hold the sponge and wipe it across the surface in one direction. For vertical, wipe the sponge down. For horizontal, wipe it from left to right.





When you reach the end of the wipe, lift the sponge and turn your wrist so that your hand and the sponge are facing back in the direction that was just wiped. This allows the same surface of the sponge to contact the sample site.

Now wipe the sponge across the surface going the other way.





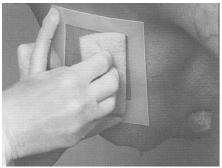
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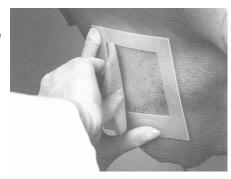
Repeat this until the surface has been wiped with 10 passes of the sponge (i.e., for horizontal, wiping left-to-right and right-to-left for 5 cycles; and for vertical, wiping from top-to-bottom and bottom-to-top for 5 cycles).



Then change to the other direction (horizontal or vertical) and follow the same steps using the same side of the sponge.



Do not switch sponging methods while at the same sample site. Remember that it is extremely important to conduct this and all sampling in a uniform manner to ensure valid sample results.





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## **Attachment D**

#### SPONGE SAMPLING PROCEDURES FOR TURKEYS

Also, refer to Attachment 3 - How to sponge a carcass (General).

There will be TWO carcass swabs per post-chill sample with 10 mL of BPW diluent used to moisten the sponge for the *Salmonella* sample and 25-mL of BPW diluent used to moisten the sponge for the *Campylobacter* sample. IPP are to collect one turkey carcass for sampling. The first sponge is to be used to swab the left side of the carcass for *Salmonella*, while the second sponge is to be used to swab the right side of the carcass for *Campylobacter*.

The following is a list of the supplies for each young turkey sampling event:

shipping container:

- 3- pairs of sterile gloves
- 1- 10 mL tube of BPW marked "S"
- 1- 25 mL tube of BPW marked "C"
- 2- sterile specimen sponges (swabs) in marked Whirl-Pak® bags; one swab labeled "C", one swab labeled "S"
- 2- sterile templates 5" x 10" cm in bag
- 2- quart resealable ziplock-type bags (secondary container)
- 1- VT Form 7355-2A/2B (Laboratory sample security seals)

Cardboard separators

Gel coolant packs

Food contact surface sanitizer

IPP are to refrigerate the BPW containers upon receipt. Ensuring that the BPW is prechilled is critical to this verification sampling procedure. <u>Only use prechilled BPW</u>.

Additional pairs of sterile gloves can be ordered from the Meat Inspection Office. IPP are to change disposable gloves whenever necessary, to prevent cross-contamination of birds and samples and are to avoid contamination of carcasses and sponge sampling supplies.

Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface. Wash and dry hands.



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Place clean paper towels, tray-pack absorbent pads, a sanitized wire rack, or equivalent on the sanitized work surface. These will prevent the turkey carcass from slipping during sponge sampling.

At the post-chill sampling location, IPP are to determine a random time at which the carcass will reach the end of the drip line. IPP are to randomly select a poultry carcass from the post-chill area (after all interventions have taken place) and to allow drip time to prevent dilution of the sample.

Step 1 - Put on a pair of sterile gloves as described in <u>Attachment B – How to put on sterile gloves.</u>

IPP are to take all necessary precautions not to contaminate any of the sampling supplies and are to discontinue the sampling procedure if a contamination event occurs which would compromise the integrity of the submitted samples.

Step 2 - While wearing the first pair of sterile gloves, remove the turkey in a safe manner. Holding the turkey by the legs and avoiding contact with the back or thigh areas, place the turkey breast down on a sanitized work surface covered with clean paper towels or absorbent pads to prevent the carcass from slipping during sponge sampling. Remove and discard the gloves. If heavy birds require assistance for lifting, have helpers wear sterile gloves and ensure that they do not touch the sampling areas. For safety purposes, do not remove the turkey carcass from the shackles but collect it after it has dropped from the line.

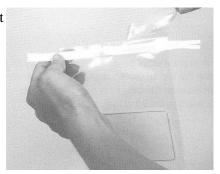
Open the sponge bag by tearing off the top perforated strip. Do not remove the wire closures from the bag. Pull apart the two small white tabs on either side to open the mouth of the bag.

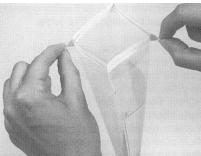


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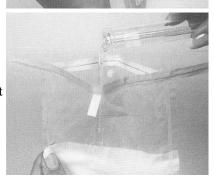
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Step 3 Open the sponge bag by tearing off the top perforated strip. Do not remove the wire closures from the bag. Pull apart the two small white tabs on either side to open the mouth of the bag.





Step 4 Remove the cap from the smaller, 10-mL pre-chilled sterile BPW container marked "S" designated for *Salmonella* sampling, being careful not to touch the container opening. Carefully pour the entire contents of the BPW container into the sponge bag marked "S". Do not contaminate the top inside of the Whirl-Pak® bag. Set the empty BPW container aside.

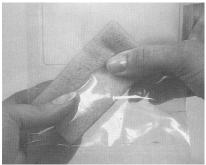




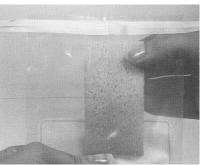
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Step 5 Press the wire closures back together to close the top of the sponge bag. Use hand pressure on the outside of the bag to carefully massage the sponge until it is fully moistened.



With the bag still closed, squeeze any excess diluent out of the sponge while carefully pushing the moistened sponge to the uppermost portion of the bag.

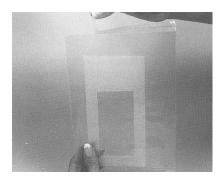


Step 6 Open the sponge sample bag, being careful not to touch its inner surface. The wire closure should keep the bag open.

Set the bag aside, being careful not to contaminate the sponge and careful not to spill the remaining BPW fluid.



Step 7 Open the sterile template bag by tearing off the top perforated strip. Set the template bag aside, being careful not to contaminate the template.





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Step 8 Put on the second pair of sterile gloves.

Carefully remove the moistened sponge from the bag by grasping the end of the sampling sponge with your gloved sampling hand. Do not touch the outside of the Whirl-Pak® bag.

With your other gloved hand, retrieve the template by its outer edge, taking care not to contaminate the inner edges that define the template's sampling area.

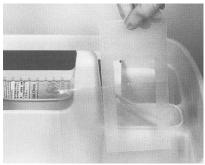
Step 9 It is important to sponge the sampling areas in the order of "least to most" contaminated to avoid spreading contamination on the carcass. Be sure to sponge sampling sites in the sequence indicated.

Place the template over the back sampling area and hold it in place to the LEFT of the vertebral column. Using your sampling hand, wipe the sponge over the entire enclosed area approximately 10 times vertically and 10 times horizontally. Use only one side of the sponge.

For a drawn picture see <u>Sample Sites for Salmonella Testing of</u> Turkey Carcasses.

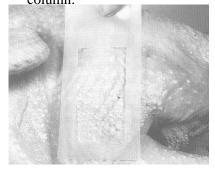
**NOTE**: The template may need to be "rolled" from side to side as the sponging is performed since the surface of the carcass is not flat. This will ensure that the full 50 cm2 area is sampled during the sponging.

Repeat the sponging procedure using the same sponge but with the template placed over the LEFT thigh sampling area. Turn the sponge over so that the unused side of the sponge contacts the thigh surface, wiping the entire area enclosed by the template with approximately 10 vertical and 10 horizontal passes of the sponge. Lay aside the template to discard later.





**NOTE:** Actual placement of each individual template used while sponging will be to the left or right of center and not directly on the vertebral column.





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Step Carefully replace the sponge into the

Whirl-Pak® sample bag (marked with an "S") with any remaining portion of BPW without touching the outside of the bag with the sponge. Expel any excess air from the sample bag and fold over the top edge of the bag 3 or 4 times to close the top. Secure the top by folding the wire attachments back against the bag.

Discard the template.





Step REPEAT steps 1- 10 using the other, larger, 25-mL pre-chilled 11 sterile BPW container marked "C" designated for Campylobacter sampling and the Whirl- Pak® sponge bag marked "C". Swab the RIGHT side of the same turkey carcass using a new pair of gloves and a new template. Upon completion of the second swabbing, and securing the swab in its marked sample bag, return the turkey carcass to the point where you collected the bird.



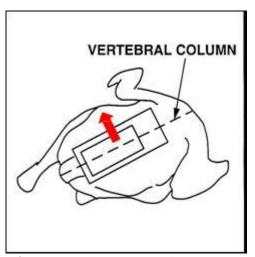
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## Sample Sites for Salmonella Testing of Turkey Carcasses:

#### Back

Locate the tail. The area to sample (5 cm x 10 cm) starts just anteriorly from the tail and extends forward along either side of the vertebral column. Two separate samples are taken individually, with one template and sponge used just to the left of the vertebral column, and the other template and sponge used just to the right of the vertebral column.



**NOTE:** Actual placement of each individual template used while sponging will be to the left or right of center and not directly on the vertebral column.

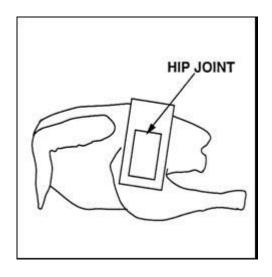


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## **Thigh**

Locate the hip joint. The area to sample (5 cm x 10 cm) starts at the hip joint and extends laterally and ventrally to cover the thigh area.



## **Attachment E - HOW TO SPONGE A BEEF CARCASS**

#### I. PURPOSE OF THIS ATTACHMENT

Routine *Salmonella* verification of beef (Steers/Heifers and Cows/Bulls) carcasses has been suspended. The methodology is provided here for use in special projects or other instances where it may be required.

## II. PREPARING TO COLLECT A SAMPLE

- A. Select a time at which to collect the sample. Determine the times that carcasses chilled for 12 hours or more will be on hand. Then randomly select a time from within that time frame for collecting the samples.
- B. Select the cooler site from which to collect the sample. Select a safe and accessible site in the cooler for collecting samples from a beef half-carcass. This site may be located at the transfer chain, grading chain, a rail, or other safe, uncrowded location in the cooler.
- C. Use aseptic techniques..
  - 1. Wash and sanitize hands.



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- 2. Sanitize work surfaces (surfaces that will contact supplies while they are being gathered).
- 3. Gather the supplies.
- 4. Label the sponge bag.
- 5. Wash and sanitize hands.
- 6. Take supplies to the sampling location.
- 7. Sanitize work surfaces (surfaces that will contact supplies during sampling).
- 8. Lay absorbent towels or sanitized rack on work surface to prevent the carcass from slipping.

#### III. COLLECTING THE SAMPLE (SPONGE SAMPLE)

- A. At the random time selected, go to the sampling location. Do not choose the carcass that is at the predetermined location. Instead, count back or ahead 5 sample units and choose the sixth unit to sample. (The reason for counting back or ahead 5 half-carcasses is to avoid any possible bias during selection.) Normally it should not be necessary to have the establishment move many half- carcasses to access a random one to sample.
- B. Sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D How to sponge a carcass (General)):
  - 1. Position equipment (keep safety in mind).
  - 2. Locate the areas of the carcass for sampling (see <u>Sample Sites for Salmonella Testing of Beef</u> Carcasses).
  - 3. Layout supplies.
  - 4. Open the sponge bag.
  - 5. Pour BPW into the sponge bag.
  - 6. Close the bag and massage the sponge.
  - 7. Push the sponge to the top of the bag, open it, and set it aside on a sanitized surface.
  - 8. Open the template bag and set it aside on a sanitized surface.
  - 9. Put on the sterile gloves (see Attachment 1 How to put on sterile gloves).
  - 10. Remove the sponge.
  - 11. Remove the template.
  - 12. Lay the template over the flank (see <u>Sample Sites for Salmonella Testing of Beef Carcasses</u>). Do not touch the sampling area.
  - 13. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
  - 14. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
  - 15. Lay the template over the brisket (see <u>Sample Sites for Salmonella Testing of Beef Carcasses</u>). Do not touch the sampling area.
  - 16. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
  - 17. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
  - 18. Carefully climb to sample the rump without touching the template or sponge to any area not being sampled.
  - 19. Lay the template over the rump (see <u>Sample Sites for Salmonella Testing of Beef Carcasses</u>). Do not touch the sampling area.
  - 20. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.



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- 21. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
- 22. Place the sponge in the Whirl-Pak® bag and seal the bag.
- 23. The sample is now complete. Follow the storage and shipping instructions in <u>Chapter VI Submitting the collected sample</u>.

## Sample Sites for Salmonella Testing of Beef Carcasses

#### Rump

Locate the posterior aspect of the ischium or aitch bone. Draw an imaginary line toward the Achilles tendon. At the point where the line intersects the cut surface of the round is the starting point for the rump sample.

Place the template over this area of the rump.

**NOTE:** This illustration has been purposely altered: a true lateral view of the carcass would not show the aitch bone. From a medial view, the whole 10 cm x 10 cm sample area could not be seen. Therefore, a lateral view with a portion of the round removed is shown to illustrate the location of the aitch bone.

#### Flank

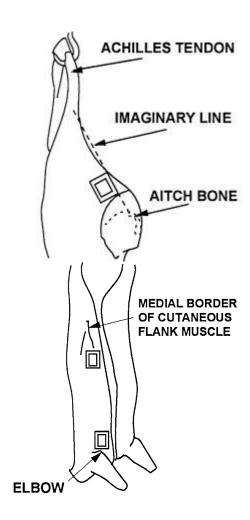
Locate the cutaneous flank muscle (external abdominal oblique) and follow the medial border of the muscle anteriorly until it comes within approximately 3" of the midline.

This will be where to place the template.

#### **Brisket**

Locate the elbow of the carcass. Draw an imaginary line straight across (medially) to the midline cut.

This will be where to place the template.



## IV. BEEF CARCASS SPONGE SAMPLING TECHNIQUE



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Step Sampling supplies included in shipping container:

- 1 Sterile specimen sponge in Whirl-Pak® bag
- 1 10 ml sterile pre-chilled Buffered Peptone Water (BPW)
- 1 Sterile template in bag
- 1 pair Sterile gloves
- 1-6" x 12" plastic sleeve for completed sample form
- 1 FSIS Form 7355-2A/2B Laboratory sample security seal set
- 3 FedEx preprinted billable stamps (one for each FSIS laboratory)
- 1 Absorbent pad
- 1 Foam plug per shipping container Cardboard separators Gel coolant packs

Ensure that all sample supplies are on hand. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface. Wash and dry hands.



Step 2 Carefully remove the moistened sponge from the bag by grasping the end of the sampling sponge with your gloved sampling hand. Do not touch the outside of the bag.

With your other gloved hand, retrieve the template by its outer edge, taking care not to contaminate the inner edges that define the template's sampling areas.

Place the template over the **flank** sampling area and hold it in place. Be careful not to contaminate the enclosed sampling area with your hands.





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Step 3 With the sampling hand, wipe the sponge over the entire enclosed area (5 cm x 10 cm) approximately 10 times vertically and 10 times horizontally. Use only one side of the sponge.

**NOTE**: the template may need to be "rolled" from side to side as the sponging is performed since the surface of the carcass is not flat. This will ensure that the full 100 cm2 area is sampled during the sponging.



Step Repeat steps 2 and 3 for the **brisket** area, using the same surface of the sponge that you used to wipe the **flank** sampling area.



Step 5 Repeat steps 2 and 3 for the **rump** area, this time using the "clean" side of the sponge (the side that was not used to wipe the flank and brisket areas). After sponging the **rump** area, transfer the template back to the sampling hand. Be careful not to contaminate the sponge. Climb down from the ladder while holding the handrail with your "climbing" hand. Lay the template aside to discard later.





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## **ATTACHMENT F**

#### HOW TO SPONGE A SWINE CARCASS

#### I. PURPOSE OF THIS ATTACHMENT

Routine *Salmonella* verification of swine (Market Hogs) carcasses has been suspended. The methodology is provided here for use in special projects or other instances where it may be required.

## II. PREPARING TO COLLECT A SAMPLE

- A. Select a time at which to collect the sample. Determine the times that carcasses chilled for 12 hours or more will be on hand. Then randomly select a time from within that time frame for collecting the samples.
- B. Select the cooler site from which to collect the sample. Select a safe and accessible site in the cooler for collecting samples from a swine carcass. This site may be located at the transfer chain, grading chain, a rail, or other safe, uncrowded location in the cooler.
- C. Use aseptic techniques as outlined in **Chapter II**, Section I.A.2.
  - 1. Wash and sanitize hands.
  - 2. Sanitize work surfaces (surfaces that will contact supplies while they are being gathered).
  - 3. Gather the supplies.
  - 4. Label the sponge bag.
  - 5. Wash and sanitize hands.
  - 6. Take supplies to the sampling location.
  - 7. Sanitize work surfaces (surfaces that will contact supplies during sampling).

## III. COLLECTING THE SAMPLE (SPONGE SAMPLE)

A. At the random time selected, go to the sampling location. Do not choose the carcass that is at the predetermined location. Instead, count back or ahead 5 sample units and choose the sixth unit to sample. Counting back or ahead 5 carcasses avoids any possible bias during selection. Normally it should not be necessary to have the establishment move many carcasses to access a random one to sample.

Swine carcasses that are routinely partially skinned may be used.

- C. Sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D How to sponge a carcass (General)):
  - 1. Position equipment (keep safety in mind).
  - 2. Locate the areas of the carcass for sampling (see <u>Sample Sites for Salmonella Testing of Swine</u> Carcasses).
  - 3. Layout supplies.



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- 4. Open the sponge bag.
- 5. Pour BPW into the sponge bag.
- 6. Close the bag and massage the sponge.
- 7. Push the sponge to the top of the bag, open it, and set it aside on a sanitized surface.
- 8. Open the template bag and set it aside on a sanitized surface.
- 9. Put on the sterile gloves (see Attachment B How to put on sterile gloves).
- 10. Remove the sponge.
- 11. Remove the template.
- 12. Lay the template over the belly (see <u>Sample Sites for Salmonella Testing of Swine Carcasses</u>). Do not touch the sampling area.
- 13. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
- 14. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
- 15. Carefully climb to sample the ham without touching the template or sponge to any area not being sampled.
- 16. Lay the template over the ham (see <u>Sample Sites for Salmonella Testing of Swine Carcasses</u>). Do not touch the sampling area.
- 17. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
- 18. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
- 19. Carefully climb down to sample the jowl without touching the template or sponge to any area not being sampled.
- 20. Lay the template over the jowl (see <u>Sample Sites for Salmonella Testing of Swine Carcasses</u>). Do not touch the sampling area.
- 21. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
- 22. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
- 23. Place the sponge in the Whirl-Pak® bag and seal the bag.
- 24. The sample is now complete. Follow the storage and shipping instructions in Chapter VI Submitting the collected sample.

Sample Sites for Salmonella Testing of Swine Carcasses



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## **Belly**

Locate the elbow of the carcass.

Place the template over this area (armpit) of the belly.

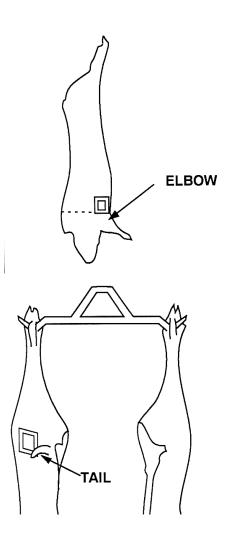
#### **Jowl**

Draw an imaginary line from the atlas/axis joint to the ventral midline; all skin below that point will be considered the jowl.

#### Ham

From the dorsal position, locate the lateral surface of the base of the tail.

Place the template over this area of the ham. Do not include the base of the tail.





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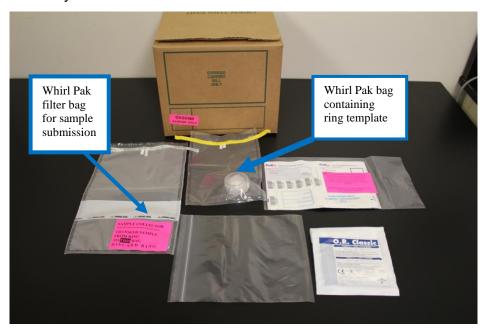
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## Attachment G

## HOW TO COLLECT A GROUND PRODUCT (BEEF, CHICKEN OR TURKEY) SAMPLE

Step 1 Ensure that all sample supplies are on hand. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface. Wash and dry hands.



Materials for sampling contained in shipping container:

- 1 Sterile Whirl-Pak® bag with a sterile, clear, rigid plastic ring template overwrapped in a sealed sheet of sterile plastic.
- 1 Sterile Whirlpak® filter bag (labeled with a pink label)
- 1 pair Sterile gloves
- 1 6" x 12" plastic sleeve for completed sample form
- 1 VT Form Laboratory sample security seal set

Cardboard separators

Gel coolant packs



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Step 2 Open the Whirl-Pak® bag containing the ring template by holding it at one corner by the wire closure (usually colored white or yellow). Tear off the clear perforated strip at the top of the bag. Do not remove or tear off the wire closures.



Step 3 Pull apart the two small white tabs on either side of the bag to open the mouth of the bag.



Step 4 While touching only the outside of the bag, manipulate the sterile plastic wrapped ring up to the top of the bag. Fold the bottom of the bag to keep the ring positioned at the top and set the bag upright on a sterile surface. Be careful not to contaminate the ring or the inside of the bag.



Step 5 Put on a pair of sterile gloves as described in Attachment 1 – How to put on sterile gloves.

Remove the sterile plastic wrapped ring template from the bag. Be careful that you do not touch the outside of the bag or any other non-sterile surface.





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Step 6 Open the Whirl-Pak® filter bag by holding it at one corner by the wire closure. Tear off the clear perforated strip at the top of the bag. Do not remove or tear off the wire closures. Pull apart the two small white tabs on either side of the bag to open the mouth of the bag.

The interior of the bag is sterile so be careful not to touch the inside. Set the bag upright in the caddy.

Step 7 Open the sterile tape seal and unwrap the sterile plastic ring template.

Place the sterile sheet of plastic on a flat sanitized work surface. Place the sterile rigid plastic ring in the center of the plastic sheet.



Step 8 Collect enough raw ground product to fill the sterile ring. Select various portions of the product to ensure that the sample is representative of the batch of product. Do not touch any surface except for the ring and the raw ground product selected for sampling.



Step 9 Pack the sample into the ring. Do this firmly to eliminate any air pockets. Fill the ring level to the top. It is critical that the ring be filled in this manner to ensure that a 25-gram sample is uniformly collected.





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Step 10 Lift the filled ring from the plastic sheet.

Hold the ring over the open end of the sterile Whirl-Pak® filter bag. Push the sample out of the ring and into the bag. Do not let the sample touch anything other than the inside of the bag.

**NOTE:** do not place the sample in the Whirl Pak bag that contained the ring template. Use the Whirl Pak filter bag only (the one with the pink label applied)

Step 11 Lift the bag. Shake the sample to the bottom. Expel any excess air from the sample bag and fold over the top edge of the bag 3 or 4 times to close it.

Secure the bag by folding the attached wire back against the bag.

Do not double-bag the sample. Discard the sample ring and the plastic sheet. Collected samples are to be refrigerated within five (5) minutes of collection and held under refrigeration and FSIS control until shipment to the laboratory.

Repeat these steps above for each sample request.





## **Attachment H**

#### **END OF SET LETTER EXAMPLE**

This is an example of an EOS letter with fictitious data to illustrate the sections and flow of the letter. Depending on the results, the letter will have additional or deleted information:

Establishment 99999 P

Sunshine Farms

Sunshine City, FL 00000



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#### Dear Establishment 99999 P:

This letter is sent to provide compiled Salmonella serotype and Campylobacter set results¹ and inform you of where your establishment stands with respect to this risk-based Salmonella and Campylobacter testing program and strategy. The Food Safety and Inspection Service (FSIS) bases its Salmonella and Campylobacter verification testing program and strategy on the combination of an establishment's overall process control, individual Salmonella subtype (serotype, pulsed-field gel electrophoresis (PFGE) pattern, and antimicrobial susceptibility profile) results. FSIS focuses more intently on establishments that have had a high percentage of Salmonella or Campylobacter positive test results, with emphasis on Salmonella serotypes that are commonly associated with human illness, as well as other Salmonella subtypes and Salmonella antimicrobial resistance patterns of potential public health concern. You have been provided individual sample results as they have become available.

#### **Process Control**

With the completion of a Young Chicken carcass *Salmonella* and *Campylobacter* verification sample set on September 23, 2011, Establishment 99999 P has tested at or below half the acceptable number of positives for *Salmonella* and at or below the acceptable number of positives for *Campylobacter* verification testing for this product class. These results are an indication that the establishment maintained consistent process control for the incidence of generic *Salmonella* during the period of sampling. Together with the results from the previous set, this places Establishment 99999 P in Category 1. In addition these results show that your establishment has passed the Campylobacter Performance Standard for the last set and this product class. Several compliance guidelines can be accessed on the FSIS webpage2 and provide detailed information on controlling *Salmonella* and *Campylobacter*. A more detailed explanation of FSIS *Salmonella* process control categories can also be found on the FSIS webpage3.

#### Summary Results from Last Two Sampling Sets:

| Product class | Performance Standard*             |   |   |                    |                                  | Number of  | Number of                                     | Current                                      |
|---------------|-----------------------------------|---|---|--------------------|----------------------------------|--|---|--|
|               | Number<br>of<br>sample<br>s taken | Maximum<br>Salmonella<br>positives<br>allowed | Maximum Campylo- bacter positives allowed | Date set completed | Number of<br>samples<br>analyzed | Number of<br>samples<br>positive for<br>Salmonella | samples<br>positive for<br>Campylo-<br>bacter | Salmonella<br>process<br>control<br>category |
| Young         |                                   | 5   | 8   | 09/23/11           | 51                               | 1  | 2   |  |
| Chickens      | 51                                | 12  | NA  | 06/05/09           | 51                               | 5  | NA  | Cat 1  |

<sup>1</sup> The lag-time between reporting individual results and this compiled letter is a result of the time required to complete all laboratory and reporting procedures. PFGE and antimicrobial susceptibility pattern information will be provided in a separate mailing when the information becomes available.

<sup>2</sup> http://www.fsis.usda.gov/Regulations\_&\_Policies/Compliance\_Guides\_Index/index.asp#Salmonella

<sup>3</sup> Salmonella Scheduling Algorithm Functions



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## Public Health-focused Evaluation of Isolates by Serotype

FSIS has evaluated the serotype4 of the *Salmonella* isolates from the most recent verification sample set referenced above and is providing public health-focused information on these recent isolates. Serotyping, PFGE pattern identification, and antimicrobial susceptibility profiling5 of bacterial isolates provide added distinction to *Salmonella* isolates from food and environmental samples and from human specimens. This information can be used to better focus food safety efforts to protect public health. Compiled serotypes are provided in this letter to facilitate the establishment's efforts to identify interventions (e.g., pre-harvest interventions) it may use to address these serotypes. PFGE and antimicrobial susceptibility pattern information will be provided in a separate mailing once it becomes available.

## Salmonella Serotype Results for the Most Recent Sampling Set:

| Form ID  | Collection Date | Serotype    | Serotype commonly associated with human illness6 |
|----------|-----------------|-------------|--|
| 00000000 | 08/03/11        | ENTERITIDIS | Yes***   |

<sup>\*\*\*</sup> There was one sample that had a serotype commonly associated with human illness in this set, which is a medium number for this product class7.

**Serotype commonly associated with human illness:** These *Salmonella* isolates have a serotype that is commonly associated with human illness. A list of the serotypes that are more commonly associated with human illness can be found on the CDC Web site at:

http://www.cdc.gov/ncezid/dfwed/PDFs/salmonella-annual-report-2011-508c.pdf

<sup>\*</sup>New Performance Standard in effect as of July 1, 2011

<sup>4</sup> Serotypes of positive samples are provided by the National Veterinary Services Laboratory of USDA.

<sup>5</sup> PFGE and antimicrobial susceptibility patterns of positive samples are provided by the Agricultural Research Service

<sup>6</sup> Based on the CDC's most recent published list of 20 most frequently reported *Salmonella* serotypes from humans (http://www.cdc.gov/ncezid/dfwed/PDFs/salmonella-annual-report-2011-508c.pdf). FSIS will inform establishments through this letter if serotypes are otherwise of heightened interest, as determined through additional analysis of available data.

<sup>7</sup> Based on the distribution of serotypes commonly associated with human illness in this product class found in FSIS verification testing over the past two calendar years, where results lower than the 25th percentile equals "low", results above the 75th percentile equals "high", and all other results equal "medium"



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Isolates with a serotype not included on this list have a serotype that is less frequently associated with human illness. Please note that all *Salmonella* serotypes are considered to be capable of causing illness in humans.

## **Discussion of Compiled Set Results**

The following results related to your operation are being provided for you to use in the evaluation of your operation:

The verification results are an indication that your establishment maintained consistent process control for the incidence of generic *Salmonella* during the period of sampling and passed the *Campylobacter* Performance Standard. In addition one *Salmonella* isolate had a serotype commonly associated with human illness, which is a medium number for this product class. In the event additional follow-up searches alter the establishment's serotyping results, a revised letter will be issued to the establishment.

FSIS will use *Salmonella* process control and serotype as well as *Campylobacter* set results to further determine scheduling for *Salmonella* and *Campylobacter* testing. Based on the present *Salmonella* serotypes commonly associated with human illness, Establishment 99999 P is likely to be scheduled for another sample set sooner than an establishment that did not have the individual serotype results that your establishment has had.

FSIS expects establishments to consider these testing results in the decision-making process when evaluating the effectiveness of its overall food safety system. This could be accomplished by establishments identifying and implementing relevant pre-harvest or post-harvest strategies. More information on such strategies can be found in available Agency Compliance Guidelines for controlling *Salmonella* and *Campylobacter* which can be accessed on the FSIS webpage8.

Please be advised that an establishment that does not adequately take the provided information into account in the decision-making process when evaluating the effectiveness of its overall food safety system may be determined to have an ineffective food safety system. In addition, if FSIS determines that a product produced by an establishment is associated with human illness because *Salmonella* is present in that product, FSIS may consider the product adulterated and take appropriate regulatory action.

Please direct questions to askFSIS (http://askfsis.custhelp.com).

| Sincerely,                 |  |
|----------------------------|--|
| [DM]                       |  |
| Office of Field Operations |  |



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cc: Inspector-in-Charge (via electronic copy)

Front-Line Supervisor (via electronic copy)