SOP for *Listeria* Testing

Elements of the food contact surface testing program for *Listeria* species in RTE post-lethality processing areas.

**Frequency of testing:** Routine testing of food contact surfaces (FCS) for *Listeria* species (*L. spp.*) will take place at least once per month. This will consist of a composite sample (several site samples combined for a single analysis) or an individual site sample.

**Justification for frequency of testing:** A testing frequency of once per month was selected because the compliance guideline for this rule expects a sampling frequency for a very small plant of at least once per month.

**The location and size of samples:** Individual site samples will be collected with a moist sponge from approximately one square foot of food contact surface (where possible). The sample will be collected after at least 3 hours of operation (or at the end of the operation if its duration is less than three hours). The food contact surfaces to be sampled include:

a. smokehouse screens holding product after cooking  

b. cooler racks on which RTE product is directly stored  

c. tables/carts onto which RTE product is placed during packaging  

d. totes or lugs used to hold RTE product during packaging  

e. knife blades or scissors used to separate product during packaging  

f. the palm surface, including the fingertips, of both hands of the person doing the packaging (bare or gloved)  

g. the blade, feed and landing area of slicers used to produce wholesale product  

h. specify and include other surfaces identified to directly contact RTE products post-lethality that are not listed above.

**Implementation of "hold-and-test procedures" following positive tests of food contact surfaces for *Listeria* species:**

**Routine sampling** refers to the normal sampling of FCS for *L. spp.* at the frequency outlined in the testing program. It continues at the prescribed frequency when results for *L. spp.* on FCS are negative.

**Follow-up testing** refers to an additional test(s) performed on FCS after a positive test result is obtained for *L. spp.* during routine sampling.

**Product testing:** refers to testing of held product for the pathogen *Listeria monocytogenes.*
1. For routine FCS sampling for *L.* spp. product handled/packaged on the day of sampling will not be held.

2. A negative result for *L.* spp. FCS on routine testing verifies that your control sanitation measures are working. Continue with routine monthly testing.

3. A first (non-consecutive) positive result for *L.* spp. on routine monthly testing signals a possible sanitation problem in the post-lethality environment.

   Apply corrective actions, which would include intensified cleaning and sanitizing in that area to eliminate *L.* spp., re-evaluation of the handling/packaging process and retraining of employees if necessary. **Hold any lots produced starting with this resample until follow-up test results are known.**

4A. If the result for the follow-up FCS test for *L.* spp. is negative, resume routine sampling.

   If result is negative for follow-up test #1 for *L.* spp. on food contact surfaces, it signals that the corrective action has removed the contamination. The previously held lots held can be released. The plant resumes routine sampling of food contact surfaces.

4B. If the result for follow-up test #1 of FCS test is positive for *L.* spp., it signals that the applied corrective actions have not corrected the contamination, and there is an increased risk of product contamination.

   Apply corrective actions, which would include intensified cleaning and sanitizing in that area to eliminate *L.* spp., re-evaluation of the handling/packaging process and retraining of employees if necessary. **Previously held lot(s) must be tested for *Listeria monocytogenes at this time as well as any subsequent lot(s).**

   Perform another follow-up testing (follow-up test #2) of the affected FCS for *L.* spp. for the next product lot after corrective actions have been applied.

   Production may continue (if desired), but follow-up testing will be conducted on FCS that may have become contaminated by contact with the food contact surface for *L.* spp. for each lot until the result of follow-up test #2 is known. Held product should be tested for *Listeria monocytogenes* using a sampling method that provides a statistical confidence that each lot is not adulterated with *Listeria monocytogenes*. **Hold all products associated with follow-up tests and any lots produced thereafter until test results are known. Product associated with test #2 will be tested specifically for *Listeria monocytogenes*.**

   If the product sampled and held after the second consecutive FCS positive (follow-up sample #2) is **negative** for *Listeria monocytogenes*, the lot can be released to commerce.

   If the product sampled and held after the second consecutive FCS positive (follow-up sample #2) is **positive** for *Listeria monocytogenes*, the affected product must be destroyed or re-worked to insure destruction of the pathogen and the establishment must follow the steps in 4B until the corrective actions are successful.
HOLD-AND-TEST SCENARIO FLOWCHART
(Per 9 CFR 430.4)

(Day 1) → Collection of Routine Test of Food Contact Surfaces (FCS) for *Listeria* species (spp.)

(Day 4) → *(1st+)* FCS *Listeria spp.* (+)
- Corrective Action
- Intensified Cleaning and Sanitizing
- Continue Production
- Follow-up FCS Testing for *Listeria spp.* (target specific site that was positive and potential additional sites in the surrounding area)

AND
- Hold product from date of testing (Day 4) until results of follow-up FCS testing are available.
- Hold product from days 5 & 6 to ensure results of follow-up FCS testing is negative.
- If FCS (from Day 4) is positive for *Listeria spp.* product will be tested for *Listeria monocytogenes*.

(Day 7) → *(2nd+)* FCS *Listeria spp.* (+)
- Corrective Action
- Intensified Cleaning and Sanitizing
- Follow-up FCS Test for *Listeria spp.*
- Continue Production

AND
- Hold and test product lot from Day 7 for *Listeria monocytogenes* using sample plan.
- Hold product from days 8 & 9 to ensure results of follow-up FCS testing is negative.
- If FCS is positive for *Listeria spp.* product (from Day 8 and 9) will be tested for *Listeria monocytogenes* to assure product is not adulterated.

(Day 10) → *(3rd+)* FCS *Listeria spp.* (+)
- Corrective Action
- Intensified Cleaning and Sanitizing
- Follow-up FCS Test for *Listeria spp.*
- Continue Production

AND
- Hold and test product lot from Day 10 for *Listeria monocytogenes* using sample plan.
- Hold product from days 10, 11 and 12 to ensure results of follow-up FCS testing is negative.
- If FCS is positive for *Listeria spp.* product (from Day 11 and 12) will be tested for *Listeria monocytogenes* to assure product is not adulterated.

FCS *Listeria spp.* (-)
- Continue Production
- Continue routine testing of FCS for *Listeria spp.*

AND
- Hold lots can be released to commerce.
FCS: Food Contact Surface

*L. spp:* Listeria spp. or Listeria-like organisms (test results available after 2 or 3 days)

*L.m.:* *Listeria monocytogenes* (test results available after 6 or 7 days)

If the product or FCS sampled and held after the second consecutive positive (follow-up sample #2) is positive for *Listeria monocytogenes*, the affected product must be destroyed or re-worked to insure destruction of pathogen.

As production continues, actions to be taken will be dictated by FCS test results for *L. spp.* following the guidelines listed above:

- Any negative FCS results lead back to routine sampling
- A first positive FCS result on routine sampling leads to corrective actions and an immediate sampling of the FCS for *L. spp.* All lots are held until results have been received.
  - If follow-up FCS is negative, any held lots can be released
  - If follow-up FCS is positive, held lots will have product tested for *Listeria monocytogenes*.
    - If product tests negative for *Listeria monocytogenes* – release to commerce
    - If product tests positive for *Listeria monocytogenes* – destroy or rework
- A second consecutive positive FCS result for *L. spp.* leads to additional corrective actions, follow-up sampling of FCS of the next lot for *L. spp.*, and holding the next lot(s) of production and testing product for only *Listeria monocytogenes*. All lots are held until results have been received.

All lots produced after the second consecutive FCS positive (beyond the lot above in which product is samples for *Listeria monocytogenes*) – will be held until the FCS result is known:

- If follow-up FCS is negative, any held lots can be released
- If follow-up FCS is positive, all held lots will have product tested for *Listeria monocytogenes*.
  - If product tests negative for *Listeria monocytogenes* – release to commerce
  - If product tests positive for *Listeria monocytogenes* – destroy or rework