

# FMI *Listeria* Action Plan for Retail Delis

NOVEMBER 2012

*Listeria* control at retail is an ongoing challenge. FMI and our members are committed to finding ways to control the growth and if possible, eliminate the presence of *Listeria* at retail to reduce the risk in the retail environment. Retail delis provide an ideal environment for *Listeria* due to the type of foods, ready to eat (RTE) meats, cheeses, and salads, the moist environment, and temperatures that support growth of *Listeria*. For the purposes of this document, the organism we are concerned about is *Listeria monocytogenes* which we will abbreviate as Lm. It is commonly found in the environment and when ingested, it can cause serious disease in humans and has been associated with a significantly higher hospitalization and fatality rate than other foodborne infections.

Food safety experts from FMI's Food Protection Committee have identified two core items that all retailers should be focusing on to minimize the impact of Lm at retail, and an additional five areas in which there is an opportunity to modify current practices or use advanced programs or technologies to control the growth of *Listeria*.

DEVELOPED BY FMI'S CENTER FOR FOOD RETAIL SAFETY AND DEFENSE



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# CORE ITEMS

## 1. TRAINING AND EXECUTION OF PROPER SANITATION AND EMPLOYEE PRACTICES

Training deli employees on proper food safety practices particularly related to personal health and hygiene, handling, avoiding cross contamination, proper chilling, and proper sanitation are essential, including but not limited to the use of Standard Sanitation Operating Procedures (SSOPs) (in attached documents) to address high risk areas in retail delis. Deli team members must be trained on what to do and why they should do it. Store management teams should be trained on the importance of supporting deli team members in this process. Training should be a top down approach in that senior management must support the allocation of resources and labor necessary to execute this critical training at the appropriate frequency.

Improper execution of cleaning and sanitation procedures in the deli will not be effective at reducing Lm. A food safety culture, which provides sufficient training allowing for the proper execution of sanitation, will be the ultimate driver of success. Senior management commitment is essential to this process.

**Action:** *Train deli employees on the essentials of food safety focusing on proper cleaning and sanitation of food contact surfaces, touch points, and non-food contact surfaces. Apply additional focus on areas that have been identified as higher risk as defined in the attached SSOPs or within your own stores. Make sure that daily cleaning and sanitation are being executed properly. Involve retail management with this training to reinforce expectations and create senior management support for the sanitation programs. Employees must be provided the proper tools, chemicals, and time along with education and training to be successful with their cleaning and sanitation program.*

## 2. TEMPERATURE CONTROL TO LIMIT LM GROWTH

*Listeria* is one of very few bacteria that can grow at cold temperatures. However, the colder the temperature, the slower the growth. Maintaining deli products at cold temperatures is essential to minimize the growth of Lm on the products. The FDA Food Code requires most deli items be held at a temperature of 41 °F or lower.

The USDA is revising a risk assessment on Lm at retail and indicates that maintaining deli case temperatures below 41°F reduces the risk of Lm by 43%. Many deli cases sampled by USDA were above 41°F which may provide an environment conducive for rapid growth of Lm in deli meats, cheeses, and salads.

**Action:** *Maintain all coolers and storage cases to ensure that deli product's temperatures are kept below 41 °F at all times. If possible adjust cooler set temperatures to allow for busy times of the day when the cooler and case doors may be opened more frequently. Employees and management must monitor the holding units or products to verify that the products are being maintained at the correct temperature. Air flow should not be blocked and cases should not be overstocked in order to maintain temperatures below 41°F.*

# ADDITIONAL OPPORTUNITIES TO EVALUATE PROGRAMS AND MAKE IMPROVEMENTS

The five areas for improvement in delis are:

1. FLOORS AND DRAINS
2. CLEANING
3. SLICERS
4. CROSS CONTAMINATION – CONTROL OF PRODUCT AND PEOPLE FLOW
5. CONSUMER USE-BY DATES

The industry experts agree that there are opportunities for improvements, and details with specific actions are below.

## 1. FLOORS AND DRAINS

Floors may be the key to reducing Lm in the retail deli. Floors and drains should be cleaned and sanitized on a daily basis. Floors and drains should be in good repair and not have any standing water. Pools of water should be removed. *Listeria* thrives in wet environments and wet floors provide a perfect home for Lm to grow, in particular, in hard to reach areas such as under equipment. Lm tends to be found in biofilms which are very stable matrices of bacteria and organic material that become more difficult to clean over time as a result of poor daily sanitation. Rigorous cleaning and sanitizing is required to disrupt the biofilm and break it down. (A biofilm is an invisible buildup of film and grime over time.)

There are some items that deserve extra attention.

- A. Thorough cleaning of floors and drains is necessary to remove debris and reduce biofilms. Pay special attention to floor-wall junctures.
- B. Eliminate standing water.
- C. Sanitize the floor properly and allow for adequate contact time according to the sanitizer label instructions.
- D. Maintain a clutter free environment to allow for thorough cleaning.

Floor drains can be a harborage point for Lm because they collect debris and stay wet. Some companies are using special (but widely available) cleaning and sanitizing foaming agents on floor drains to break down the organic material and sanitize the drain.

*See the SSOP for Clean and Sanitize and the SSOP for Deli Floor Drains: Clean and Sanitize (Routine Maintenance Cleaning)*

**Action:** *Set up a routine SSOP for cleaning and sanitizing floors paying close attention to condition of the cleaning tools, floor material, standing water, and drains.*

## 2. CLEANING

Ongoing and daily cleaning is fundamental to allow proper sanitizing of a surface. Cleaning involves the removal of visible soil from surfaces. Cleaning is essential to remove Lm and disrupt biofilms that might exist. More intensive cleaning might be necessary in delis and other retail departments with increased food preparation activities. Consider rotating cleaning agents and/or tools in order to obtain a more intensive cleaning step. Take care to not re-contaminate the environment during the cleaning process.

**Action:** *Evaluate current cleaning processes and intensity of cleaning for food contact, non-food contact surfaces, and the retail environment. Thoroughly clean all areas in the deli paying close attention to harborage areas (niches) where food debris and residues are difficult to reach. Senior management support is critical to ensure that the necessary allocation of labor resources is considered to ensure proper training and execution of these processes.*

### 3. SLICERS

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Many products from delis come into contact with a slicer before going to the consumer. Slicers have been a topic of discussion and a concern of food safety professionals and regulatory officials for years. NSF and ANSI have developed **standards** for new slicers beginning November 2012 to address many concerns about older slicers including clean-ability and niches for bacteria. Companies should evaluate the need to replace older slicers with slicers that meet the new NSF/ANSI standards and determine the return on investment.

The 2009 FDA Food Code requires that slicers held at room temperature be cleaned and sanitized at least every four hours. Niches or harborage points have been an issue with slicers in the past therefore thorough cleaning and sanitizing is essential. Some retailers have dedicated slicers for meats and dedicated slicers for cheeses to avoid the potential for cross contamination. Some retailers also rotate slicers in and out of use so that they can meet customer demand when the four-hour cycle is over for a slicer.

*See the SSOP Deli Slicer: Clean and Sanitize*

Condition of deli slicers should be monitored and all slicers should be on a regular maintenance schedule. Parts should be checked regularly for wear and all repairs should be made by authorized providers. Slicers should be replaced according to the schedule or when they are no longer in acceptable condition as determined by the establishment.

**Action:** *Implement SSOP for Slicer. Consider having dedicated slicers for cheeses and meats. Set up a routine maintenance schedule for slicers. Work with equipment procurement to upgrade older slicer inventory with slicers that meet the new NSF/ANSI Standard 8.*

### 4. CROSS CONTAMINATION - CONTROL PRODUCT/ PEOPLE FLOW

**(REDUCE THE RISK OF CROSS CONTAMINATION)**

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Delis are open environments with many people who have access to the department and a lot of different foods moving through the department. To minimize the risk of cross contamination, it is strongly encouraged that an evaluation of the traffic flow in the deli be completed to determine if some of the potential for cross contamination can be eliminated. This should include the elimination of any and all non-deli employee access to this area, unless there is justifiable need for access. Can some higher risk operations be moved to other departments to minimize the risk for cross contamination of product? If at all possible, raw meat preparation should be moved away from RTE products to avoid cross contamination.

The goal is to think differently about people flow and product flow when it comes to the deli and determine if changing a practice might reduce the risk of Lm contamination.

**Action:** *Evaluate traffic patterns and product flow. Consider ways to prevent/eliminate the potential for cross contamination by reducing traffic and shifting tasks.*

### 5. CONSUMER USE BY DATES

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Provide consistent consumer information on deli packaging, for example, consistent use-by-dates and instructions to store below 40°F on deli bags.

It is our responsibility as retailers to sell safe product. Customers control the storage temperature and length of time they retain the product. Retailers can assist our customers by providing them with storage information printed on our deli bags or on labels.

**Action:** *Provide a use-by date of 3 days for meats and 4 days for cheeses on deli packages for products sliced at retail. Remind consumers to store deli products in the refrigerator at temperatures below 40°F.*

# MODEL SANITATION STANDARD OPERATING PROCEDURE

## DELI FLOORS: CLEAN AND SANITIZE

<b>DEPARTMENT:</b>	Deli
<b>MATERIALS:</b>	Broom, cleaning detergent, dust pan, foaming low pressure nozzle, sanitizer, deck brush, squeegee, sanitizer test strips, personal protective equipment (PPE) as needed.
<b>RECOMMENDED FREQUENCY:</b>	Daily; and as needed for spot cleaning.

### SPECIFIC INSTRUCTIONS:

1. Follow the label directions for all cleaning/sanitizing chemicals and wear the appropriate PPE.
2. Remove or protect **ALL** packaging, exposed food items, utensils and equipment from cleaning area and potential splash zones.
3. Remove floor mats and clean per its SSOP.
4. Remove large debris and sweep floor.
5. If possible, move tables and moveable equipment away from the wall and clean those areas first.
6. Apply foaming detergent to floor and walls just above the floor wall junctures. Follow manufacturer's recommendations for concentration, contact time, and water temperature.
7. Vigorously brush the foaming detergent on floor surfaces, floor/wall juncture, under equipment, under sinks, storage areas, and all other areas within the department.
8. Rinse all washed areas with low pressure/volume water until all evidence of foam is removed.
9. Squeegee excess water toward drains.
10. Apply sanitizer (per manufacturer's label) with low pressure/volume dispensing system to floor surfaces, floor/wall juncture, under equipment, under sinks, storage areas, and all other areas within the department that were washed and rinsed. Do **NOT** use squeegee to dry the floor of sanitizer to limit potential for cross contamination.
11. Wash and sanitize any potential splash zones (equipment cases, bottom shelves of tables and shelving, etc.) within 24 inches of the floor prior to replacing packaging, exposed food items, utensils, and equipment.
12. Allow sanitizer to air dry.
13. Clean and sanitize cleaning equipment (deck brushes and squeegees) per its SSOP prior to storage; store in designated area.

Note: Avoid splashing of all chemicals and water.

When cleaning drains, the drains **SHALL** be cleaned first followed by cleaning the floor as outlined above.

Do not allow standing water or sanitizer solution to remain on floor area that does not properly slope to drain.

<b>MONITORING:</b>	Daily: Visual inspection by department supervisor for any visible soil.
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**SSOP MANAGER'S SIGNATURE:**

**DATE SIGNED:**

# MODEL SANITATION STANDARD OPERATING PROCEDURE

## DELI FLOOR DRAINS: CLEAN AND SANITIZE (ROUTINE MAINTENANCE CLEANING)

<b>DEPARTMENT:</b>	Deli
<b>MATERIALS:</b>	Drain cleaning foam (cling type), low pressure water nozzle, personal protective equipment (PPE) as needed.
<b>RECOMMENDED FREQUENCY:</b>	Weekly or as needed.

### SPECIFIC INSTRUCTIONS:

1. Follow the label directions for all cleaning/sanitizing chemicals and wear the appropriate PPE.
2. Remove or protect **ALL** packaging, exposed food items, utensils and equipment from cleaning area.
3. Remove floor mats and clean per its SSOP.
4. Remove large debris and sweep floor.
5. Place disposable gloves on both hands and remove drain cover along with the basket and discard any debris in the basket as well as any debris in the drain.
6. Apply "Drain Cleaning Foam (cling type)" to both sides of drain cover, both sides of drain basket, and the throat of the drain. Replace the basket and drain cover and allow foam to remain in contact with all surfaces for the required time per manufacturer's label. Adjust procedures to effectively clean other type of drains (trench, floor sinks, equipment, etc.).
7. Remove and dispose of gloves and wash hands thoroughly.
8. Rinse the drain and drain cover with a low pressure water nozzle to remove all foam.
9. **RECOMMENDED:** Anytime a drain is cleaned, the department floors should be cleaned and sanitized per the "Deli Floors: Clean and Sanitize" SSOP.

Note: It is strongly recommended to **AVOID** using floor drain brushes when cleaning floor drains as this may create aerosolized particles that have the potential of cross contaminating cleaned surfaces.

Note: In cases where drain covers cannot be removed safely, apply the "Drain Cleaning Foam (cling type)" as best as possible.

Note: SSOP above focuses on regularly scheduled and/or maintenance cleaning of floor drains. For initial or rough cleanings of floor drains, consider consulting with your chemical supplier for additional chemicals, tools and direction.

<b>MONITORING:</b>	Weekly: Visual inspection by department supervisor for any visible soil.
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<b>SSOP MANAGER'S SIGNATURE:</b>	<b>DATE SIGNED:</b>
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# MODEL SANITATION STANDARD OPERATING PROCEDURE

## DELI SLICER: CLEAN AND SANITIZE

<b>DEPARTMENT:</b>	Deli
<b>MATERIALS:</b>	Apron, cut resistant gloves, disposable gloves, detergent, rinse water, sanitizer, buckets / spray bottles, disposable towel, non-abrasive scouring pads, nylon scrub brush, sanitizer test strips, personal protective equipment (PPE) as needed.
<b>RECOMMENDED FREQUENCY:</b>	4 hours for In-use, as needed throughout the day; and at day's end.

### SPECIFIC INSTRUCTIONS:

1. Follow the label directions for all cleaning/sanitizing chemicals and wear appropriate PPE.
2. Turn power off
3. Disconnect the plug from the power source
4. Make sure the index knob is turned to the right past 'zero' until it stops
5. Select 'cut resistant gloves that fits your hands and place them on both hands when cleaning the slicer
6. Cover 'cut resistant' gloves with disposable gloves
7. Disassemble the slicer according to the manufacturer's instructions (remove carriage tray, food pusher, blade guard, etc.)
8. Pre-scrape areas of slicer to remove food debris
9. Wash, rinse and sanitize removable slicer parts at 3-compartment sink per your company's policy
10. Wash, rinse and sanitize stationary parts of slicer (blade, tray area, underneath slicer, etc.) per your company's policy  

Scrub stationary parts and area under the slicer with a nylon brush, then wash with detergent and a cleaning cloth, rinse with fresh clean water, and then sanitize with a disposable towel or spray bottle.

Note: Clean both sides of the slicer blade with disposable towel, non-abrasive pad or brush. Always wipe from the center of the blade toward the outer edge (towards you). Move the blade manually to get the full edge

Clean table under slicer using a clean single use towel
11. Sanitize as per company SSOP's, allow slicer to air dry
12. Wash hands and put on disposable gloves
13. Reassemble slicer in a sanitary manner so as not to contaminate the equipment
14. Reconnect power source.
15. Follow Company SSOP's for cleaning, storage and use of cleaning tools (scrub brushes, scouring pads, etc.).

**SSOP MANAGER'S SIGNATURE:**

**DATE SIGNED:**