Voluntary Guide for Dairy Farmers to Enhance Biosecurity to Ship Milk Safely during a HMD Outbreak

Preparation to Request a Pre-event Audit Approval to Ship Milk from the Farm During a Hoof and Mouth Disease Outbreak

Second Edition—March 2017
Background

If one or more cases of Hoof and Mouth Disease (HMD), also known as Foot and Mouth Disease (FMD), are identified in the US, movement control orders will be imposed on animals and animal products at the discretion of federal and state animal health officials.

Because dairy cattle may be infected and shedding HMD before clinical signs appear, raw milk, that is, milk shipped directly from farm to processing, must be treated as potentially contagious to all susceptible cloven-hoofed (two-toed) animals. In addition to milk, many objects are potential “fomites” for spreading HMD, including vehicles and people (employees, family members, drivers and visitors) if they have had contact with infected milk, manure, animals or contaminated surfaces. Therefore, strict biosecurity will be needed at the farm level to prevent introduction of this virus onto your farm.

HMD is not a food safety or public health concern.

State Milk Movement Procedures and Protocols

The safe milk movement procedures and biosecurity protocols outlined in this guide are designed to prevent the introduction of the highly infectious HMD virus that may be transmitted to susceptible animals through milk and other objects. If adopted and fully implemented, they will facilitate the continued, safe, movement of raw (unpasteurized) milk from dairy farms within movement-restricted areas to processing plants in the event of an outbreak of HMD in the US.

To be eligible to ship raw milk to a plant during an announced HMD outbreak, dairy producers can VOLUNTARILY choose to have their State Veterinarians in Delaware, Georgia, Maryland, North Carolina, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia and West Virginia pre-audit their farms. Pre-audit approval would expedite requests for milk movement permits, if necessary, in the event of a HMD outbreak.
This checklist can be utilized to prevent the introduction and spread of HMD by the milk truck/tanker, by the milk truck hauler/driver, and through potentially contaminated raw milk.

**Note:** All nine items must be completed to be eligible for pre-event audit approval.

### 1. Biosecurity Manager and Written Plan

The Biosecurity Manager is identified for the operation. This individual is responsible for developing the biosecurity plan with the assistance of a veterinarian (if they are not a veterinarian) and overseeing training of all employees who enter the operation. The Biosecurity Manager has the written authority to ensure the compliance with biosecurity protocols and take corrective action as needed.

**a. Appointment of Biosecurity Manager**

**b. Written Biosecurity Plan:**

1. M-A SMS Appendix A: Scope of Operation Data Collection Form for Farm Biosecurity Plan
2. M-A SMS Appendix B: M-A SMS Pre-audit Checklist/Voluntary Guide for Dairy Farmers to Enhance Biosecurity to Ship Milk Safely During a HMD Outbreak
3. M-A SMS Appendix C: Dairy Farm Milk Movement Standard Operating Procedures
4. Site Map Labeled with LOS, Access Points, C&D Station(s), Parking Area

### 2. A Premise Identification Number (PIN) has been obtained for the farm from which raw milk is being shipped.

### 3. Training

The Biosecurity Manager ensures that all individuals entering the operation frequently (weekly or more often) receive training to implement and follow the biosecurity plan. The training must be in a language understood and tailored to the individuals receiving training. Effective training ensures that individuals are aware of the concepts and procedures that apply to their specific areas of responsibility; training occurs at least annually and is documented. The Biosecurity Manager also ensures that all contractors, truck drivers, and service personnel are aware of and adhere to the biosecurity measures in the biosecurity plan.

**a. Required Elements for Training and Documentation**

**b. How to Implement Mid-Atlantic Milk Movement Biosecurity Procedures on Farm (with specific areas of responsibility)**
4. Protecting the Dairy Operation

The biosecurity plan includes a Line of Separation (LOS), which is established as an outer control boundary around, or within, the premises to limit movement of virus into areas where susceptible animals can be exposed. The LOS is clearly defined in the biosecurity plan and is clearly marked on the premises. Animals, vehicles, people, or items only cross the LOS through clearly marked and controlled LOS Access Points (s). Appropriate biosecurity measures are followed when crossing the LOS. Cattle are prevented from nose-to-nose contact from livestock on adjacent premises. Cattle do not have access to streams, waterways, or run-off water that may have come from other premises.

- Aerial map of premises
- Line of Separation (LOS)
- Biosecure Access Points
- Options for Truck/tanker and Hauler/driver for milk pickup (See #9)
- C&D station (if required to cross the LOS for milk movement)
- Parking Areas
- Documentation/Logs

5. Entering and Exiting Operation: Farm Personnel/Non-Farm Personnel

- Prior to Arriving at Dairy
  Access is limited to individuals who are essential to the operation of the dairy. Everyone crossing the LOS on foot or exiting their vehicle inside the LOS arrives at the operation having showered and wearing clean clothing and footwear since last contacting susceptible animals. All individuals crossing the LOS have a signed agreement on file agreeing to follow these instructions.

- Entry Logbooks
  Everyone crossing the LOS Access Point(s) who is not an employee or family member completes the entry logbook. The contact information and work schedule records for all employees and family member caretakers are maintained.

- Biosecure Entry/Exit Procedure
  All individuals who cross an LOS Access Point on foot or exit their vehicle inside the LOS follow a biosecure entry procedure specific to their tasks on the premises. These expectations are documented prior to or upon arrival. This communication is dated and kept on file.
6. Disinfectant and Protective Equipment:

The C&D station is operational, clearly marked, and equipped with the means to remove visible contamination and then disinfect vehicles, equipment, and items needing to cross the LOS at each LOS Access Point. The C&D station is operated by individuals who have received documented training in proper selection and use of personal protective equipment and the principles of C&D. Effluent from the C&D station is managed following state and local regulations, ensuring it does not enter waterways, animal housing, or on-farm traffic areas.

a. Type of disinfectant
   i. Farm Use and Milk Rooms
   ii. C&D Station
   iii. Employee Entrance
   iv. Hauler/Driver and Tanker Compartment

7. Milk Disposal Contingency Plan

8. Active Observational Surveillance (AOS)

9. LOS Options for Milk Transfer:

   a. Option 1: NOT crossing the LOS: Truck/Tanker Collecting Milk
   b. Option 2: Crossing the LOS: Only the Milk Transfer Hose Crosses
   c. Option 3: Crossing the LOS: Milk Truck/Tanker, Hauler/Driver May or May Not Exit Cab

To implement all of the above listed Biosecurity Performance Standards (BPS), please refer to Appendix C of the M-A SMS Plan (Version 4.0) which provides Standard Operating Procedures (SOP’s) that, when implemented, provide a basis to become pre-event audited to qualify for safe shipment of milk during a HMD Outbreak.
To be prepared in case your farm becomes located in a HMD Control Area

Factors to consider:

1. Control Areas will be established by local, state and federal officials around infected premises in the event of a HMD outbreak.

2. Dairy premises in a HMD Control Area that are designated as infected, suspect, or contact premises will not be allowed to move milk until a permit is issued by Responsible Regulatory Officials (most likely based on observation and/or testing).

3. Officials may require that dairy premises in a Control Area, but not infected, meet certain biosecurity requirements, such as being pre-certified by state officials or designated as Monitored Premises before being permitted to move raw milk to processing.

4. Dairy farms outside a Control Area may continue to move milk safely until notified otherwise by Responsible Regulatory Authorities.

To be prepared:
Get Pre-event Audit Approved by your State Veterinarian. Develop an Operational Farm Plan that meets the SOP requirements contained in Appendix C of the Mid-Atlantic Secure Milk Supply Plan (Version 4.0/Dec 2016).
Developing an Overall Farm Biosecurity Plan

Additional steps to consider beyond meeting Biosecurity Performance Standards (BPS) for safe milk movement

1. **Animal Movement (follow SMS self-assessment checklist)**

<table>
<thead>
<tr>
<th>Incoming Animals</th>
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<tbody>
<tr>
<td>Animals only come from sources with documented biosecurity practices and a history of freedom from HMD infection.</td>
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<thead>
<tr>
<th>Pre-movement isolation period</th>
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<tr>
<td>No animals from an HMD Control Area are introduced into the operation for at least 7 days prior to moving animals to another production site with susceptible animals.</td>
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<thead>
<tr>
<th>Contingency Plan for Interrupted Animal Movement</th>
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<tr>
<td>A plan exists to manage animals (heifer and bull calves, cull cattle) in a biosecure manner on-site in the event animal movement is stopped for several weeks.</td>
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2. **Animal Product Movement other than Raw Milk**

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<thead>
<tr>
<th>Milk for Calf Feeding</th>
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<tr>
<td>Calves on the operation receive either colostrum/milk produced by cows on the same operation where the calves are housed or colostrum/milk replacer manufactured according to the World Organization for Animal Health (OIE) recommendations for inactivation of HMD virus for animal consumption.</td>
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<table>
<thead>
<tr>
<th>Milk Disposal</th>
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<td>A milk disposal plan exists in the event raw milk cannot be moved to processing off-farm.</td>
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<tr>
<th>Semen, Embryos</th>
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<tr>
<td>Semen and embryos come from sources with documented biosecurity protocols and a history of freedom from HMD infection. Semen and embryos are transported in containers that can be cleaned and effectively disinfected to minimize the risk of virus transmission.</td>
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</table>

3. **Vehicles and Equipment other than Milk Truck:**

<table>
<thead>
<tr>
<th>Vehicles and Equipment (non-animal movement)</th>
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<tbody>
<tr>
<td>All vehicles and equipment (not containing live animals) are cleaned and effectively disinfected prior to crossing the LOS. The biosecurity plan contains contingency plans for vehicle and equipment C&amp;D in inclement weather. Sharing of equipment with other operations should be avoided.</td>
</tr>
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<tr>
<th>Livestock Truck/Trailers (animal transport vehicles)</th>
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<tr>
<td>Communications with livestock transporters has occurred, and is documented, that all animal transport vehicles were cleaned and disinfected prior to arrival at the dairy operation (outgoing loads) or before animals were loaded for delivery to the operation (incoming loads).</td>
</tr>
</tbody>
</table>
4. Carcass Disposal

Dead cattle are disposed of in a manner that prevents the attraction of wildlife, rodents, and other scavengers. Rendering trucks and other vehicles hauling dead animals to a common disposal site do not enter the LOS.

5. Manure Management

Manure is stored and removed in a manner that prevents exposure of susceptible animals (either on or off the premises of origin) to disease agents and meets state, local, and Responsible Regulatory Official regulations.

6. Rodent, Wildlife, and other animal control

7. Feed

Grain and feed are delivered and stored in a manner that minimizes contamination, and feed spills are cleaned up to avoid attracting wildlife.

Above BPS were developed by the Center for Food Security and Public Health (CFSPH), Iowa State University (ISU), College of Veterinarian Medicine.

Additional references:

1) the Secure Milk Supply website [www.securemilksupply.org](http://www.securemilksupply.org)

2) Information Manual for Enhanced Biosecurity Dairy, October 2016
# Required Training

Refer to Item #2 under MA-SMS General SOP Required for all LOS Options—Appendix C of M-A SMS Plan (Version 4.0)

## Review Questions for Trainers of Dairy Farm Employees

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<table>
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<tr>
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<tbody>
<tr>
<td><strong>1</strong></td>
<td>Designate one person on the farm to be Biosecurity Manager, go-to person, who has been fully briefed and trained by the State or Federal Veterinarian’s representatives and who knows and understands how to develop and implement the written Standard Operating Procedures (SOPs) that have been developed for the Farm Operational Plan.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Be sure that your overall Farm Biosecurity Plan incorporates all of the required M-A SMS SOPs and additional farm biosecurity SOP’s.</td>
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</table>
| **3** | Develop a timeframe for training for all appropriate personnel to include farm family members who assist on the farm. Maintain a written log with training dates and names of people trained. Note: Retraining is required annually.  
Once your farm has been audited to become pre-event audit approved to ship milk to processing during an HMD outbreak, you should adopt an ongoing training schedule to ensure that all farm family members and employees are equipped with the information they need to carry out their specific M-A SMS protocols to prevent disease spread. |
| **4** | **Key Questions To Be Addressed**  
*Does everyone on the farm know…*  
The basic information about HMD virus including how easily and quickly it can be spread?  
Why it is so important to be able to quickly and fully implement the SOPs for your farm?  
The importance of restricting access to the farm during a HMD outbreak and maintaining a Line of Separation (LOS) which may include a secure farm perimeter?  
The importance of keeping written records (appropriate logs) of essential vehicles and personnel entering and leaving the farm during an outbreak?  
Why it is so important to be able to clean and disinfect vehicles?  
Why it is important to follow appropriate SOP’s to control drivers?  
The importance of restricting animal movement and separating animal housing away from the milk pick-up access lane?  
Why it is important to manage manure so as not to contaminate the milk-pick up access lane?  
The importance of Active Observational Surveillance (AOS); ie. daily monitoring of all cloven-hoofed animals on the farm for clinical signs of HMD and to report any suspicious signs immediately to the farm manager or owner or to the State Veterinarian’s office? |
Mid-Atlantic Secure Milk Supply (M-A SMS) Plan Pre-event Audit
Approved Registration with State Veterinarian

**Note:** You may make a copy of this page, then complete it, sign it, and return it to the office of your State Veterinarian. This form may be available from your State Veterinarian for you to complete electronically and return via email.

<table>
<thead>
<tr>
<th>Producer’s Business Name (as it appears on the milk inspector list)</th>
<th>Pin (National Identification (PIN) of mailing location)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>City State Zip code</td>
</tr>
<tr>
<td>Primary M-A SMS Contact (Biosecurity Manager of farm)</td>
<td>eMail Phone</td>
</tr>
<tr>
<td>Additional Contact (optional)</td>
<td>eMail Phone</td>
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</tbody>
</table>

**Certifications:**

- I have received a copy of the M-A SMS plan and I am familiar with the requirements for pre-event audit approval.
- I am aware that the M-A SMS plan is **VOLUNTARY**.
- I understand that a pre-event audit approval is not a guarantee that I will be allowed to continue moving milk during a disease outbreak but increases the likelihood that I will be allowed to do so.
- My PIN number will be used and shared as an identifier under the M-A SMS Plan.

In consideration of the audit approval above, I (we) have decided to voluntarily participate in the Mid-Atlantic Secure Milk Supply Plan by beginning the planning and training necessary to be pre-event audit approved under the plan.

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<tr>
<th>Signature</th>
<th>Date</th>
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<tbody>
<tr>
<td>Name (printed)</td>
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Return to your State Veterinarian: