Utah Secure Milk Supply Plan

A Foot and Mouth Disease Preparedness and Continuity of Business Plan for Industry

SUMMARY PLAN

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Animal Industry Division

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1.0 INTRODUCTION

The Utah Department of Agriculture and Food (UDAF), Animal Industry Division, home of the State Veterinarian's Office ("State Veterinarian"), is a statutorily created agency with authority and responsibilities identified in Title 4, Utah Agricultural Code, chapters 1 thru 42. The State Veterinarian serves under the authority and delegation of the UDAF Commissioner of Agriculture as an appointed official.

There are several foreign animal diseases (FAD), including foot and mouth disease (FMD), vesicular stomatitis, and rinderpest, that can infect cattle and other cloven-hooved livestock, such as swine, sheep, and goats, and deer and other wildlife. If one or more cases of an FAD are identified in the state of Utah, the State Veterinarian has the authority and responsibility under Utah Agricultural Code Section 4-13-115 to enforce quarantines and establish Control Areas around FAD infected premises and to manage animal and animal product (e.g. milk) movement within, into, and out of the Control Area and other areas of the state. This plan focuses on control of FMD, but movement restrictions will be similar for other FADs.

1.1 PURPOSE

The Utah Secure Milk Supply Industry Plan (UT SMS Plan) provides additional guidance, beyond that described in the National Secure Milk Supply Plan, for the **Utah dairy industry** to move milk to processing from unaffected dairy farms in a FMD Control Area. Allowing milk movement under the guidance described here will help preserve the economic viability of dairy farms and dairy businesses and ensure a continuous supply of dairy products to consumers.

The UT SMS Plan can be broken down into two components:

Goals of the UT SMS Plan:

- Maintain business continuity for dairy producers, haulers, and processors during an FMD outbreak.
- Provide for efficient and effective response to minimize disease spread.
- Assure a continuous supply of milk and milk products to consumers.

Although the UT SMS Plan does not address live animal movement, UDAF recognizes that the movement of livestock is essential to the continuity of business. Biosecurity and surveillance requirements are equally important to the movement of livestock, compost, feed, and equipment to prevent the transmission of FMD. For guidance on the movement of these products during an FMD outbreak, please refer to the *Utah Emergency Disease Response Plan*.

The science- and risk-based planning for the milk movement under this plan is primarily for dairy cattle; however, the basics of biosecurity and milk transport remains the same for other dairy species, including goats and sheep. The movement of these milk products will be considered under the umbrella of this UT SMS Plan, as these species are susceptible to FMD. However, the requirements to obtain milk

movement permits for these species may be different than dairy cattle.

1.2 GUIDANCE DOCUMENTS

Links to the resources for producers, haulers, and processors:

- Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Materials and References
- FAD PReP Foot-And-Mouth Disease Materials and Resources
- National Secure Milk Supply Plan

Utah Emergency Response plans:

- Utah Emergency Disease Response Plan
- Utah Secure Milk Supply Plan

1.3 DAIRY INDUSTRY PARTNERS

UDAF has worked with many agencies, entities, and planning partners to develop and implement the UT SMS Plan; they include: Dairy Farmers of America (DFA), Dairy West, Dairy Producers of Utah, USU Extension, Utah Veterinary Diagnostic Laboratory (UVDL), USDA APHIS Veterinary Services, milk haulers, milk processors, and accredited practicing veterinarians.

1.4 PLAN UPDATES

The UT SMS Plan will be reviewed by UDAF on an annual basis or when there are significant changes to the National Secure Milk Supply Plan.

2.0 MOVEMENT RESTRICTIONS

Quarantine and movement control (restricting the movement of animals, animal products, and fomites) can be a powerful tool in controlling and containing an FMD outbreak. Movement control is accomplished through a permit system that allows entities to make necessary movements without creating an unacceptable risk of disease spread. All components of the dairy industry, including producers, need to strictly adhere to all movement control procedures, which are based on the best scientific information available at the time.

2.1 IMPORTANCE OF BIOSECURITY

Producers: It is the producer's responsibility during an FMD outbreak to implement biosecurity procedures to minimize the risk of their animals becoming infected, focusing on what they can control on their operation. *Biosecurity* is crucial to limiting disease spread. To be permitted to move animals and raw milk, producers will need to provide assurances to the State Veterinarian they are not contributing to the spread of disease nor putting their own animals at risk of exposure. This plan focuses on the biosecurity measures needed to limit disease spread through the **movement of raw milk to processing**.

**** It is critical that biosecurity and movement of milk is a coordinated effort between UDAF, producers, haulers, and processors. ****

Contingency Plans: Producers located in a Control Area should also be prepared to manage their dairy premises without being allowed to move animals (calves, heifers, bulls, steers, dry cows, etc.) or milk off the premises until movement permits are issued. Site-specific contingency plans should be developed to address movement restrictions in the initial stages of the disease outbreak, including animals, equipment, and other on-farm and off-farm traffic.

Pasteurization: Dairy cattle may be infected and shedding the FMD virus for days before clinical signs of the disease appear, thus all raw milk transported from dairy farms within a Control Area must be treated as *potentially infected*. FMD is strictly an animal disease and not a food safety or public health concern. However, to limit the potential for disease spread, all milk transported from dairies within a Control Area, regardless of whether it is intended for human or animal use, must either:

(a) Go to a processing plant for pasteurization or
(b) Already be pasteurized when it leaves the dairy farm.

All pasteurization must be done in accordance with the Grade "A" Pasteurized Milk Ordinance, published by the Food and Drug Administration. In the face of an outbreak, the UDAF Regulatory Services Division will oversee this process. See Appendix D for procedures for the inactivation of FMD virus in milk and cream.

Vehicles and Visitors: Vehicles and people visiting farms and having contact with raw milk, including milk trucks and haulers and other on-farm and off-farm movements, must be treated as potential sources of disease transmission.

Haulers and Processors: Haulers (milk truck drivers) represent a *moderate to high risk* of spreading FMD virus unless strict biosecurity procedures are followed. On pick-up routes that include multiple dairies, the milk truck and hauler may spread the disease from an infected but undetected farm to an uninfected

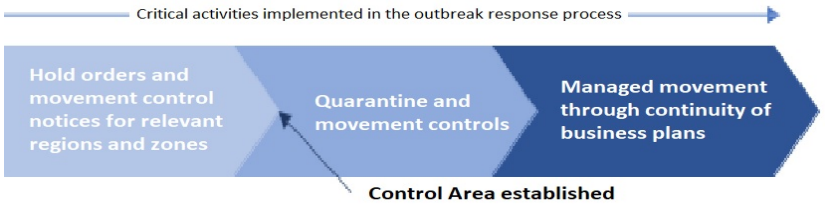
farm. Cross-contamination may occur at processing plants between milk truck haulers, between milk trucks, and with other people and vehicles through contact with raw milk. See Appendix B: Milk Hauler/Driver Biosecurity Expectations.

Biosecurity Performance Standards: The Biosecurity Performance Standards describe the recommended biosecurity performance standards (BPS) for *dairy producers, milk haulers, and processing plants* to implement in the event of a FMD outbreak. Compliance with these performance standards is intended to reduce the risk of virus spread and may allow more rapid permitting of raw milk movement from uninfected dairy premises to processing.

2.2 ESTABLISHMENT OF RESTRICTED MOVEMENT AREAS AND MILK MOVEMENTS

2.2.1 State Veterinarian Response to an Outbreak

The State Veterinarian and USDA APHIS VS Area Veterinarian in Charge will coordinate activities to establish a Control Area within 12 hours of the identification of an index case (the first case in the state). Once the Control Area and quarantines are established, movement controls and permitting will be implemented.



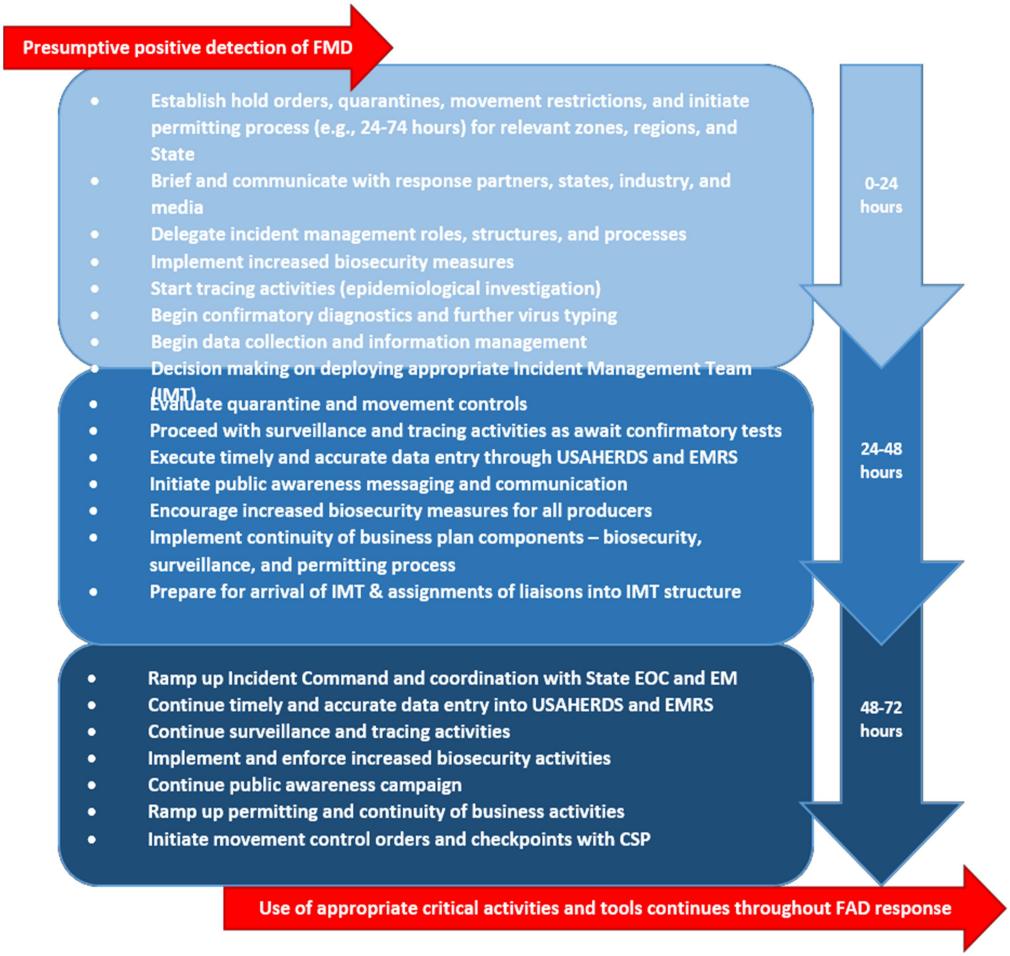
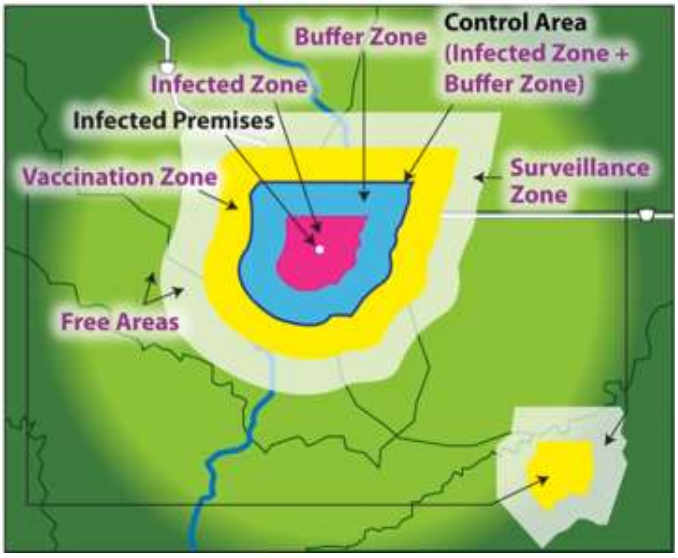


Figure 2.1 STATE: Critical Movement and Control Response Activities from 0-72 hours ***Source:*** ***Adapted from NAHEMS Guidelines: Quarantine and Movement Control***

2.2.2 Zone Classifications



Zone/Area	Definition
Infected Zone	Zone that immediately surrounds an Infected Premises.
Buffer Zone	Zone that immediately surrounds an Infected Zone or a Contact Premises.
Control Area	Consists of an Infected Zone and a Buffer Zone
Surveillance Zone	Zone outside and along the border of a Control Area.
Free Area	Area not included in any Control Area.
Vaccination Zone	Emergency Vaccination Zone classified as either a Containment Vaccination Zone (typically inside a Control Area) or a Protection Vaccination Zone (typically outside a Control Area). This may be a secondary zone designation.

2.2.3 Premises Classifications

Premises	Definition	Zone
Infected Premises	Premises where presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, FMD case definition, and international standards.	Infected Zone
Contact Premises	Premises with susceptible animals that may have been exposed to FMD, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.	Infected Zone, Buffer Zone
Suspect Premises	Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with FMD. This is intended to be a short-term premises designation.	Infected Zone, Buffer Zone, Surveillance Zone, Vaccination Zone
At-Risk Premises	Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with FMD. Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises.	Infected Zone, Buffer Zone
Monitored Premises	Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Only At-Risk Premises are eligible to become Monitored Premises. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.	Infected Zone, Buffer Zone
Free Premises	Premises outside of a Control Area and not a Contact or Suspect Premises.	Surveillance Zone, Free Area
Vaccinated Premises	Premises where emergency vaccination has been performed. This may be a secondary premises designation.	Containment Vaccination Zone, Protection Vaccination Zone

2.2.4 Eligibility of Farms to Move Milk

The eligibility of various classifications of dairy premises to move milk in the face of an outbreak is as

follows:

- **Infected, Suspect, and Contact Premises**

  Infected, Suspect, and Contact Premises are **not eligible** to receive milk movement permits.

- **At-Risk Premises and Monitored Premises**

  These premises are eligible for milk movement permits. Both types of premises are treated the same and a movement permit allows milk to move within and out of a Control Area. The UT SMS Plan specifies the biosecurity and related conditions for obtaining a movement permit.

- **Vaccinated Premises**

  This designation is secondary and does not affect the eligibility for a milk movement permit. The decision to use FMD vaccination will be made by federal and state animal health officials based on the characteristics of the outbreak and other unique factors related to a particular outbreak. However, producers should be aware that vaccines for FMD are likely to have milk and slaughter withdrawal times and should have a contingency plan to manage milk during the withdrawal time.

- **Milk routes**

  Milk haulers will receive specific route information daily from milk dispatch to maintain biosecure travel corridors. This may include a list of permitted farms in movement restricted areas, a list of public roads closed to milk haulers, and suggested routes for milk pickup.

3.0 PRE-EVENT PREPAREDNESS

Pre-planning for safe, timely, risk-based, permitted movement of animals and animal products will be critical to maintaining business continuity of the dairy industry while controlling and containing the outbreak. Participation in the pre-event preparedness is **voluntary**, but to move raw milk a producer must have a permit. UDAF will issue permits for eligible At-Risk and Monitored Premises as quickly as possible, but initially it will require that authorized personnel approve the farm's biosecurity, surveillance, and record keeping procedures.

3.1 PRODUCER PARTICIPATION

There are steps that dairy producers can voluntarily take **prior to** an outbreak to streamline the issuance of permits for the movement of raw milk to processing. Producers who have completed and met all pre-event requirements will be on the fast-track for issuance of movement permits compared to those who have not done any pre-event planning.

UDAF will be working closely with producer groups, milk processors, and accredited veterinarians to assist producers in completion of the following requirements:

3.1.1 Implement Enhanced Biosecurity

Stringent biosecurity measures will be essential to prevent the entry of FMD virus into each herd. Premises should review and implement the items in the Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention: Dairy. The checklist emphasizes three concepts that all dairy operations should be ready to implement: (1) a biosecurity manager, (2) a written operation-specific enhanced biosecurity plan, and (3) a line of separation (LOS).

Dairy premises should use the Enhanced Biosecurity Checklist and the Information Manual for Enhanced Biosecurity for FMD Prevention to develop a written *site-specific* biosecurity plan. The Biosecurity Checklist, Information Manual, and materials for training employees are available on the SMS website www.securemilksupply.org.

A majority of the biosecurity measures in the Biosecurity Checklist should be implemented even in the absence of FMD or any other FAD to prevent entry and spread of endemic livestock diseases. Meeting the requirements in the checklist will provide assurances to the State Veterinarian that biosecurity measures are in place or can be ramped-up quickly during an outbreak to make milk movement from that farm an acceptable risk.

3.1.2 Location Verification

Farms must have a validated premises ID (PID) from UDAF. Having a PID facilitates requesting movement permits during an outbreak. The PID is assigned to the actual location of the premises - the physical address and a set of matching coordinates (latitude and longitude). Most dairies in Utah should already have an assigned state PID. Farms may also have a National Premises Identification

Number (PIN) from the USDA.

3.1.3 Surveillance

Surveillance requirements for permitting in the face of a FMD outbreak will be communicated to the dairy industry from the State Veterinarian or Incident Command within 48 hours. Initial surveillance may include visual on-farm inspection of susceptible species. As soon as practical, surveillance may include laboratory testing of susceptible animals and/or testing of milk (if validated tests are available). Guidance on surveillance sampling for the SMS plan is available on the SMS website.

Dairy Farms should prepare for different surveillance methods:

- Dairy farm personnel should be trained to look for the signs associated with FMD. Training materials are available on the SMS website. It is important for animal caretakers to be able to document that there is no evidence of an FAD infection in their herd through Active Observational Surveillance (See Active Observational Surveillance (AOS) to Support Permitting Milk Movement). Dairy farm personnel should also know who to contact if disease is suspected.
- Designated individuals should be trained to collect samples. The herd veterinarian should lead this training. These designated individuals should periodically practice sample collection, and sample collection supplies should be maintained on the premises. Having these individuals trained and ready to collect and submit samples will enable the premises to start surveillance sampling as soon as they are notified that they are in a Control Area or are required to submit samples to obtain movement permits. Dairy managers/owners will be provided with instructions on how and where to submit samples for testing.

3.1.4 Data Management

Data collection and sharing is part of an FMD response to issue movement permits. This data shall be available for review by the State Veterinarian or their designee. Premises should maintain production and movement records needed for trace-back and trace-forward purposes; records of movement of animals, feed, supplies, equipment, personnel, and visitors facilitates accurate completion of the *Epidemiology Questionnaire*. In addition, records of the names, addresses, and telephone numbers of haulers, employed personnel, feed supplies, etc. should be maintained. See Appendix H in the *FMD Response Plan: The Red Book* for an example Epidemiology Questionnaire. The Secure Milk Supply website has customizable biosecurity forms that may be used for record-keeping.

3.1.5 Collaboration

Producers should ensure during their pre-event planning that the milk haulers and processing facilities transporting and receiving their raw milk are prepared to implement ramped-up biosecurity protocols in the face of a FMD outbreak to decrease the risk of disease introduction and transmission and to maintain continuity of business.

3.2 HAULER AND PROCESSOR PARTICIPATION

Haulers and processors play a critical part in safe transport and processing of raw milk in the face of a FMD outbreak. Movement permits will only be issued when the State Veterinarian and the Incident Command are provided assurances that haulers and processors are not contributing to disease spread through proper biosecurity plans and procedures. Haulers and processors are also responsible for maintaining movement information for trace-back and trace-forward purposes.

The Biosecurity Performance Standards for Milk Collection and Transport outline the goals and expectations to prevent FMD spread. Haulers and processors should use these guidelines to develop site-specific biosecurity standard operating procedures in collaboration with producers. These guidelines cover the following: (1) BPS for milk collection on a dairy premises, (2) controlling dairy premises access using a line of separation (LOS) and controlled access points, (3) over-the-road transport in a control area, (4) off-loading of raw milk at a dairy processing plant, (5) cleaning and disinfection of vehicles, (6) approved disinfectants for FMD virus, and (7) personal protective equipment (PPE).

3.2.1 Hauler Guidance

The following information can be found in the Milk Hauler: SMS Plan Permitting Guidance document on the SMS website and Appendix D: Milk Hauler/Driver Biosecurity Expectations.

Hauler Components:

- Provide contact information, including personal and company information, and document tanker ID and route details (premises visited and number of premises per trip)
- Follow premises biosecurity procedures related to milk loading as well as general farm biosecurity including:
  - Site-specific LOS and access points
  - PPE requirements if leaving truck
  - Site-specific loading procedures
  - Avoiding contact with farm personnel, animals, or milk products
  - Minimizing raw milk spillage/leakage
- Ensure route complies with State Veterinarian-approved traffic routes, if in place
- Communicate with dairy owner/managers, processing plants, and regulatory officials to ensure all procedures and biosecurity processes in place are followed

The hauler or hauling company should create the following:

- Mechanism for training on biosecurity for drivers
- Mechanism for working with dairy premises to utilize site specific LOS and milk loading SOPs
- Milk unloading SOPs in cooperation with processors
- Plan to access necessary supplies
- Communication plan with dairy premises, processing plants and regulatory officials

3.2.2 Processor Guidance

The following information can be found in the Milk Processor: SMS Plan Permitting Guidance document on the SMS website.

Milk Processing Plant components:

- Premises ID from UDAF and Federal Premises ID (PIN) from USDA. All premises should already have these assigned to them.
- Facility requirements
  - Enforce traffic patterns on plant premises
  - Record all vehicle and personnel movements into and out of facility
  - Control access to facility unloading bay
  - Install C&D station(s) with waste water management (if necessary)
- Personnel follow procedures to prevent spread of possibly contaminated materials (e.g., mud, manure, or raw milk) from susceptible species
- Vehicles (raw milk tankers)
  - Personnel inspect tanker for leakage upon entry and approve off-loading prior to hauler/driver exiting cab
    - All milk leakage is addressed immediately, and the source is resolved prior to additional milk pick-ups
    - Prevent raw milk spillage on outside of the tanker when sampling (collection bucket should be available)
    - All milk spills during off-loading of milk are addressed immediately
  - Avoid residual milk leaks from tanker after off-loading upon exiting processing plant
  - C&D process in place to ensure that tankers leave processing plant with clean exterior
- Processor follows Grade A standards for processing milk or any additional guidelines put in place by the State Veterinarian

The processing plant must create the following Standard Operating Procedures (SOPs):

- For personnel that contact susceptible species to avoid transporting any contaminated material (mud, manure, etc.) to/from plant grounds on their vehicles or clothing
- To prevent raw milk on clothing and footwear of plant personnel from leaving the designated raw milk handling areas of the plant
- For controlled access for the unloading bay
- For milk tanker C&D with wastewater plan (if necessary)
- For milk tanker inspection upon arrival to processing plant for leakage
- For handling any milk leakage or spillage during milk unloading and avoiding cross-contamination of other vehicles, people, or equipment
- To ensure no residual milk in tanker and hose leaks upon tanker exit after off-loading milk
- To collect milk movement permits from haulers delivering milk from an FMD control area

Processors must have the ability to communicate with milk haulers, dairy premises, and regulatory officials. They must provide documentation to dairy producers that plant biosecurity procedures are in place and acceptable to the State Veterinarian. They must notify regulatory officials if milk is received without an accompanying movement permit.

Full implementation of plant procedures and biosecurity plans may require SOPs, additional training, or education plans. The processing facility should also consider how to monitor that procedures are correctly followed.

3.3 DATA MANAGEMENT

UDAF shall collect, store, and maintain information on pre-event biosecurity assessments and the results of those assessments. The data is protected under State statute and regulations that govern the confidentiality of producers' data.

The dairy name, location, contact information, and permit numbers for milk movement will be provided only to individuals that require this information to implement procedures of the UT SMS Plan during an emergency disease outbreak and shall be included on the permit.

Permitting information will be made available only to emergency management personnel involved in the disease response activities, animal health officials in other cooperating states, and with federal animal health officials upon request, provided the Utah State laws and rules governing the confidentiality of the livestock information is not violated.

4.0 OUTBREAK RESPONSE

During an outbreak response, the Incident Management team will review the most recent pre-event biosecurity inspection findings for dairy farm premises and specify procedures for livestock inspections of dairy farm premises. See Appendix D for Critical Activities for Producers, Haulers, and Processors in the first 72 hours of response.

4.1 POST-EVENT REQUIREMENTS FOR MILK MOVEMENT

The following permitting guidance applies to dairy farms in Control Areas during a FMD outbreak:

1. All dairies will implement their FMD site-specific biosecurity plans (and continue until freedom from FMD is re-established); biosecurity protocols will be enforced within the Control Area.
2. The Incident Management Team will allow permitted movement of milk from premises with no evidence of infection with FMD to processing according to State, regional, and national SMS Plans.
3. All dairy premises within a Control Area will complete an FMD Epidemiology Questionnaire with a FAD Investigator. See Appendix H in the *FMD Response Plan: The Red Book* for an example Epidemiology Questionnaire.
4. Biosecurity assessments may be performed at the discretion of the State Veterinarian, or assigned incident management personnel, prior to issuing a milk movement permit.
5. Dairy premises will be required to monitor all cattle daily for signs of FMD infection, record their findings, and promptly report abnormal findings to the Incident Management Team. Records shall be available for review by the Incident Management team.
6. Depending on the outbreak, the State Veterinarian may require additional surveillance beyond monitoring cattle for clinical signs of FMD. See Operations in a Control Area.
7. Dairy processing plants receiving milk from a Control Area will enhance their biosecurity to prevent the spread of disease via trucks and drivers, as well as plant personnel handling raw milk potentially containing FMD virus.

5.0 REQUESTING A PERMIT FOR MOVEMENT DURING AN OUTBREAK

The UT SMS Plan only covers Continuity of Business Permits (secure food supply permits) for movement of raw milk from At-Risk and Monitored Premises. Other on-farm and off-farm movements, such as for feed, animals, or veterinary services, will also require special permits. See *FAD PReP Manual 6-0: Permitted Movement* for additional information on permit types.

5.1 PRODUCERS: HOW TO REQUEST A PERMIT

The Incident Management team will set up an online information sharing center and provide public information news releases for producers, stakeholders, and the public during an outbreak. There may be multiple ways for dairy producers to request a movement permit for milk; via telephone, an online form, or by contacting UDAF field personnel providing service to that premises.

Producers should provide the following information when requesting a permit:

Permit Class	Where you are moving in relation to the Control Area (e.g., out of control area)
Permit Reason	Why you need a movement permit (e.g., sending raw milk to processing)
Origin Premises	Premises information, including premises ID (PID and/or PIN)
Destination Premises	Premises information, including premises ID (PID and/or PIN)
Item permitted	Category of what you are moving (e.g., feed, animals, milk)
Item class	Specifically what is moving (e.g., raw milk to processing)
Duration/span of permit	First movement date and how long the movements are expected to occur
Origin Premises Classification	Must be classified as At-Risk or Monitored Premises for a permit
Biosecurity Plan and Procedures	Biosecurity processes must be in place and acceptable to the Incident Management team for the following: origin premises, milk loading, milk hauler, and processing plant
Hauler information	Truck route to processing is acceptable to the Incident Management team; interstate movements meet normal movement requirements in addition to any outbreak-specific conditions

Producers should be prepared to have the following information available upon request prior to issuance of movement permit:

- A completed copy of the epidemiology questionnaire.
- A completed copy of the Biosecurity Checklist and the site-specific biosecurity plan.
- Written assurance of compliance with the Biosecurity Checklist.
- Information demonstrating normal health status for the animals on the dairy (e.g., herd health monitoring documents and/or certificate of veterinary inspection signed by an Accredited Veterinarian).
- Laboratory results from samples tested, if required for movement.

5.2 UTAH PERMITTING PROCESS

In the event of an FMD outbreak in Utah, a permitting team will be deployed under the Operations Section of the Incident Management team. The Permitting Team will be responsible for collecting relevant and required information for each permitted movement request using available resources and

the USAHERDS animal health information management database.

Once a permit is issued by Incident Management and documented in USAHERDS, a copy of the permit will be forwarded to the national permitting unit or entered into EMRS (the federal emergency management response system tracking database).

If the permit is for a movement out of state, the Permitting Team will email (or fax) the permit and required/requested additional information to the state of destination for approval.

Refer to the following links for additional information regarding permitting:

SMS Plan Recommendations for Milk Handling during an FMD Outbreak

FAD PReP Manual 6-0: Permitted Movement

5.3 RESCINDING MILK MOVEMENT PERMITS

1. Permits may be rescinded for violating or not adequately maintaining biosecurity procedures. Re-inspections for biosecurity reasons will include a full biosecurity assessment and must be passed before a permit can be re- issued; or
2. Permits will be rescinded if livestock inspections by qualified animal health professionals under the direction of the State Veterinarian identify clinical signs consistent with FMD; as a result, the farm is identified as a Suspect Premises. The permit may be reinstated when sufficient information is provided to the State Veterinarian to determine the farm is no longer a Suspect Premises; or
3. Permits will be rescinded if laboratory tests indicate FMD virus infection in one or more animals on the premises; as a result, the farm is identified as an Infected Premises.
4. Rescinding of permit for failure to complete, or produce completed, daily herd health inspection records will be at the discretion of the Incident Management Team.

6.0 STATE AND AGENCY COLLABORATION

UDAF has Memorandums of Understanding (MOUs) with other states and agencies to manage the movement of animals and animal products and aid in disease response activities within Utah and across state borders.

7.0 JUST-IN-TIME PREPARATION

If FMD (or another cattle FAD) is diagnosed within Utah, premises that are within a Control Area or even in other parts of the State will be required to obtain a permit for the movement of milk. Producers who have completed and met all pre-event preparedness will be able to obtain permits more quickly than those who have not.

Those that have not participated in the pre-event preparedness will need to implement appropriate biosecurity on their premises in order to obtain milk movement permits. In addition, adequate surveillance will need to be performed by trained staff, and production records will need to be maintained and shared with the State Veterinarian. Producers must still meet all of the requirements listed in sections 3.0: Pre-Event Preparedness and 4.0: Post-Event Response.

APPENDIX A: LINE OF SEPARATION

The **Line of Separation (LOS)** is a clearly identified boundary around, or within, the entire dairy operation to separate off-farm and on-farm movement of vehicles, items, people, and animals. The purpose of the LOS is to limit movement of FMD virus into areas where susceptible animals can be exposed directly (animal contact) and indirectly (contaminated vehicles, footwear, equipment, run off). Access should only be allowed though a minimum number of clearly marked and controlled **LOS Access Point(s)** following appropriate biosecurity measures.

Figure E-1: Dairy LOS schematic

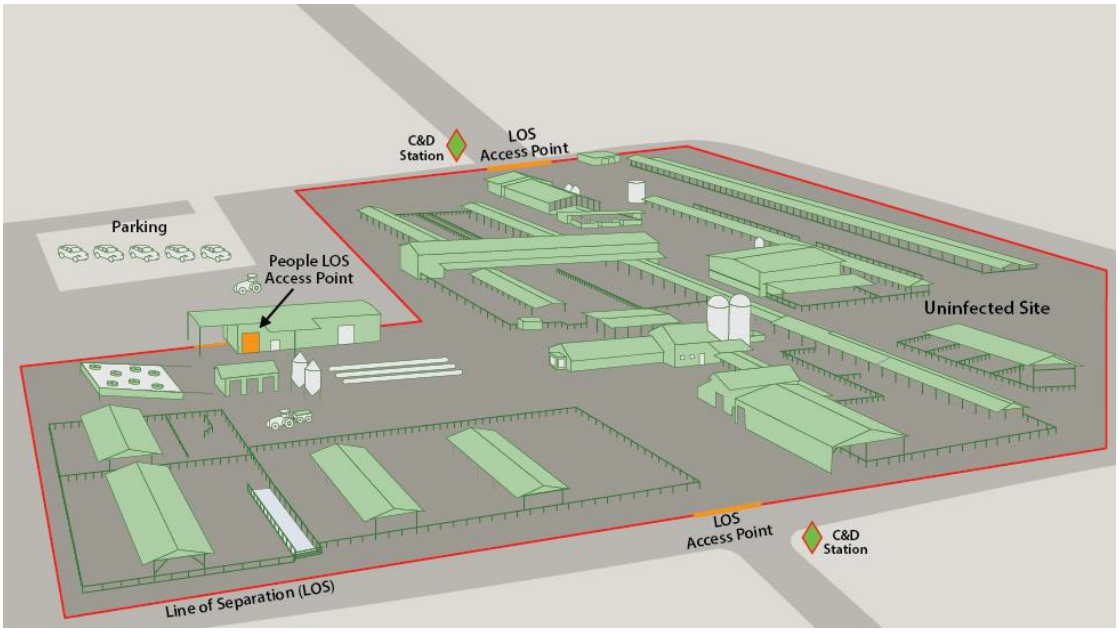


Figure E-2: Aerial view of dairy farm with LOS indicated

APPENDIX B: BIOSECURITY CHECKLIST FOR DAIRY PRODUCERS

This is a summary of the Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention: Dairy from the Secure Milk Supply website. Recommendations in black should be done to prepare for an outbreak. Recommendations in gray should be implemented during an outbreak, but plans should be made in advance to address those areas.

Area	Recommendations	In place?
Biosecurity Manager and Written Plan		
	Biosecurity manager identified. Responsible for developing biosecurity plan and ensuring training.	
	Site-specific written enhanced biosecurity plan.	
	Plan includes premises map with Line of Separation, LOS access points, C&D stations, designated parking area, and carcass disposal location.	
	Plan includes vehicle movements (milk truck, animal transport vehicles, deliveries, veterinarian) and carcass removal pathways	
	All individuals entering the operation frequently have access to a copy of the biosecurity plan	
	Biosecurity manager is capable of implementing the written plan if FMD is diagnosed in the US	
	Biosecurity manager ensures compliance with biosecurity protocols and takes corrective actions as needed	
Training		
	Essential personnel are trained at least annually about biosecurity measures	
	Individuals entering the operation are informed about biosecurity measures they are to follow in the event of an outbreak	
	Employees are aware of biosecurity procedures that apply to their specific areas	
	Plan describes required training	
Protecting the Dairy Operation		
Line of Separation		
	Plan includes a clearly defined line of separation	
	Line of separation and access points are clearly marked on the premises map	
	Cattle do not have access to cattle, streams, waterways, or runoff water that may have come from other premises	
	Animals, vehicles, people, or items only cross the LOS through controlled LOS Access Points	
LOS Access Points		
	LOS access points are protected with a suitable barrier to prevent unauthorized vehicles from entering	
	LOS Access points are clearly marked with a sign in a language understood by all entering	
	Defined personal biosecurity measures for LOS Access Points	
	Cleaning and disinfection of vehicles moving through an LOS Access Point	
	No individual entry through the animal loading/unloading area	
	Forms to record all movements across the LOS	
	All animals, vehicles, equipment, and people crossing the LOS are recorded	
	Designated and marked location outside the LOS for deliveries not essential to the dairy	
Cleaning and Disinfection (C&D) Station		
	Operational, clearly marked, and equipped C&D station for vehicles, equipment, and other items needing to cross the LOS	
	Individuals operating the C&D station have been trained in C&D and PPE	
	Runoff from the C&D station meets state and local regulations and does not enter waterways, animal housing, or on-farm traffic areas	
	Plan includes contingency plans for C&D in inclement (rain/snow) weather	
	Clearly marked designated parking area outside the LOS away from animal areas for vehicles that will not enter the operation and have not been cleaned and disinfected	

Vehicles and Equipment		
	C&D of all vehicles and equipment not containing live animals prior to crossing the LOS	
	Animal transport vehicles are cleaned and disinfected prior to arrival at the operation for outgoing loads of animals	
	Animal transport vehicles are cleaned and disinfected prior to loading animals for incoming loads	
Personnel		
	Plan limits access to only essential individuals	
	Individuals crossing the LOS during an outbreak must shower after contact with off-premises susceptible species and wear clean clothing and footwear	
	All individuals crossing the LOS have a signed agreement on file agreeing to follow biosecurity measures in the event of an outbreak	
	An entry logbook is available for everyone crossing the LOS Access Points	
	Contact information and work schedule records are maintained for all workers	
	All individuals who cross an LOS Access Point must ensure that there is no visible contamination on their footwear, clothing, or skin when entering and leaving	
Animal Movement		
	Animals only come from sources with documented biosecurity practices	
	Plan to manage animals in a biosecure manner on-site in the event animal movement is stopped for several weeks	
	Areas contaminated by personnel or animals after loading/unloading are cleaned and disinfected	
Animal Product Movement		
	The milk hauler follows the farm-specific biosecurity procedures	
	The drive path to the milk house is labeled on the premises map	
	Biosecurity plan describes the drive path, the use of single or commingled tankers, the type of milk transfer hose used, and whether the driver exits the cab to load milk	
	If the milk truck hauls milk from other operations (commingled load), it does not leak milk in an area that cannot be effectively disinfected	
	Milk samples collected on-farm are transported in a container that can be disinfected	
	Calves on the dairy are fed either colostrum/milk originating from the operation where they are housed or colostrum/milk replacer manufactured according to OIE recommendations	
	Waste milk is treated for inactivation of FMD virus	
	A milk disposal plan exists in the event raw milk cannot be moved to processing off-farm	
	Semen and embryos come from sources with documented enhanced biosecurity practices	
	Semen and embryos are transported in containers whose exteriors can be cleaned and disinfected to minimize the risk of virus transmission	
Carcass Disposal		
	Dead animals are disposed in a manner that prevents the attraction of wildlife, rodents, and other scavengers	
	Rendering trucks hauling animals to a common disposal site do not cross the LOS	
Manure Management		
	Manure is stored and removed in a manner to prevent exposure of susceptible animals (on or off-farm) to disease agents	
	Manure storage and removal meets state and local regulations	
	A plan exists for storing manure on-site in the event it cannot be permitted to move off-site	
Rodent, Wildlife, and Other Animal Control		
	Control measures are in place to minimize interaction between cattle and other animals	
Feed		
	Feedstuffs are delivered, stored, mixed, and fed in a manner that minimizes contamination	
	Feed spills are cleaned up promptly to avoid attracting wildlife	

APPENDIX C: MILK HAULER/DRIVER BIOSECURITY EXPECTATIONS

This information can be found in the Information Manual for Enhanced Biosecurity for FMD Prevention: Dairy (Appendix J).

One of the most frequent arrivals onto a dairy premises is the milk hauler. Establish the expectations for their actions on farm and communicate it to the hauling company and all milk haulers that arrive at your operation. Below are examples for the various milk collection options involving the hauler. Include the biosecurity measures that best fit your facility and personnel capabilities and prevent the introduction or spread of FMD virus. More details can be found in the Biosecurity Performance Standards for Raw Milk Collection and Transport.

General – Applies to ALL Haulers

- Follow the state regulatory requirements
  - Licensed weigher/sampler records milk weight, collects bulk tank sample, and ensures the state regulatory requirements are followed
- Ensure no residual raw milk remains in the truck/tanker or hose before the truck leaves the processing plant if Clean-in-Place is not done
- Avoid tire contact with manure or other organic material whenever possible
- Keep the interior of the cab and exterior of the truck/tanker as clean as possible with no visible contamination
- Carry and wear appropriate personal protective equipment (PPE) when exiting the cab to prevent milk spray on exposed skin, street clothing, and footwear
  - Single use (disposable) gloves – all haulers exiting cab
  - Protective footwear – all haulers exiting cab
  - Protective outerwear – all haulers transporting commingled loads or more than one farm in a single day
- Carry an approved disinfectant and spray equipment (e.g., garden sprayer) for cleaning and disinfection (C&D) of small milk spills during collection
- Avoid contact with people, animals, or raw milk
- Close and secure the dome lid during milk pumping and transporting

Farm-Specific Options – Choose 1 or the 3 options to include in your biosecurity plan

1. Milk Truck Does NOT Cross the LOS (Bulk tank is outside the LOS)

- *Milk hauler performs all milk collection tasks*
  - If truck-mounted transfer hose
    - Hauler will rinse the interior of the milk hose with potable water from the milk house until discharge is clean and clear and cap both ends.
    - Hauler will disinfect exterior surface of hose with FMD-approved disinfectant
  - Before re-entering the cab
    - Remove gloves and disposable footwear OR disinfect non-disposable footwear
  - Milk house equipment C&D
    - Dairy premises personnel perform milk equipment C&D after the hauler leaves, including farm-dedicated milk hoses

Source: Information Manual for Enhanced Biosecurity for FMD Prevention: Dairy (Appendix D)

2. Only the Transfer Hose Crosses the LOS

Area just in front of the milk house is outside the LOS or hose porthole is LOS Access Point

- *Milk hauler remains outside the LOS and dairy premises personnel remain inside the LOS*
- *Requires a licensed weigher/sampler on farm to complete all necessary steps to collect milk*

Source: Information Manual for Enhanced Biosecurity for FMD Prevention: Dairy (Appendix D)

Milk hauler/driver responsibilities

- TRUCK-MOUNTED transfer hose
  - Pass capped TRUCK-MOUNTED transfer hose to dairy personnel
    - Dairy personnel will spray hose exterior with FMD-approved disinfectant as it crosses the LOS
    - Dairy premises personnel connect transfer hose to bulk tank after performing weigher/sampler duties
  - Connect transfer hose to tanker for milk collection (if not already connected) and pump milk.
  - After loading is complete
    - Hauler will cap tanker end of hose and pass entire hose to dairy premises personnel to spray exterior with disinfectant as it crosses the LOS
    - Dairy premises personnel will rinse interior with potable water from milk house until discharge is clean and clear, cap both ends and pass back to hauler/driver
- FARM-DEDICATED transfer hose
  - Connect transfer hose to truck/tanker; Disconnect when done and pass to dairy premises personnel
    - Dairy premises personnel will spray hose exterior surface with FMD-approved disinfectant as it crosses the LOS and clean interior with rest of milking equipment
  - Remove gloves and remove or disinfect outerwear and footwear
    - Re-enter the cab
    - Transport milk samples to processing plant

3. Milk Truck Crosses the LOS

- *Milk truck/tanker must cross the LOS to pick up milk*
- *Determine if driver exits cab or not; if not, follow guidance for milk collection by dairy personnel*

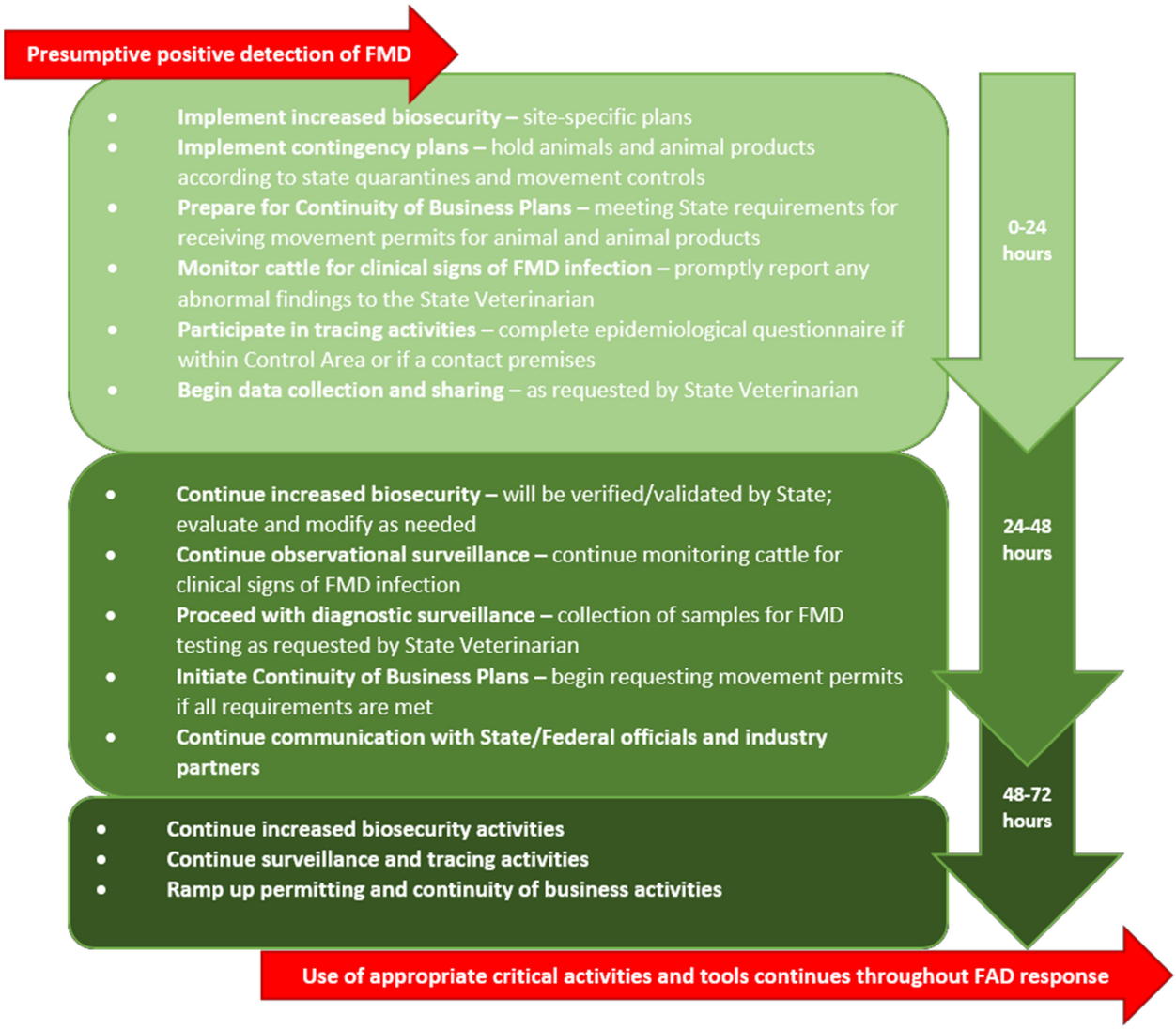
Source: Information Manual for Enhanced Biosecurity for FMD Prevention: Dairy (Appendix D)

- Milk truck/tanker C&D required before crossing LOS
  - Dairy premises personnel perform milk truck C&D upon entry and exit of the farm
- Driver collects milk
  - Driver sprays the exterior of the transfer hose with disinfectant prior to connecting to the tank and truck
  - After pumping milk, rinse the interior of the hose with potable water from the milk house until it runs clear
    - If the transfer hose is truck-mounted, spray exterior with disinfectant prior to storing on truck.
    - If the transfer hose is farm-dedicated, leave the hose for dairy employees to disinfect.
  - Dairy employees perform C&D of milk equipment
  - Driver removes gloves and disposable outerwear/footwear OR disinfect non-disposable outerwear and footwear while re-entering the cab
- Dairy employees perform milk collection
  - Employees perform the milk collection as described above
  - Milk truck driver does not leave the cab of the truck

APPENDIX D: CRITICAL PRODUCER, HAULER, and PROCESSOR RESPONSES

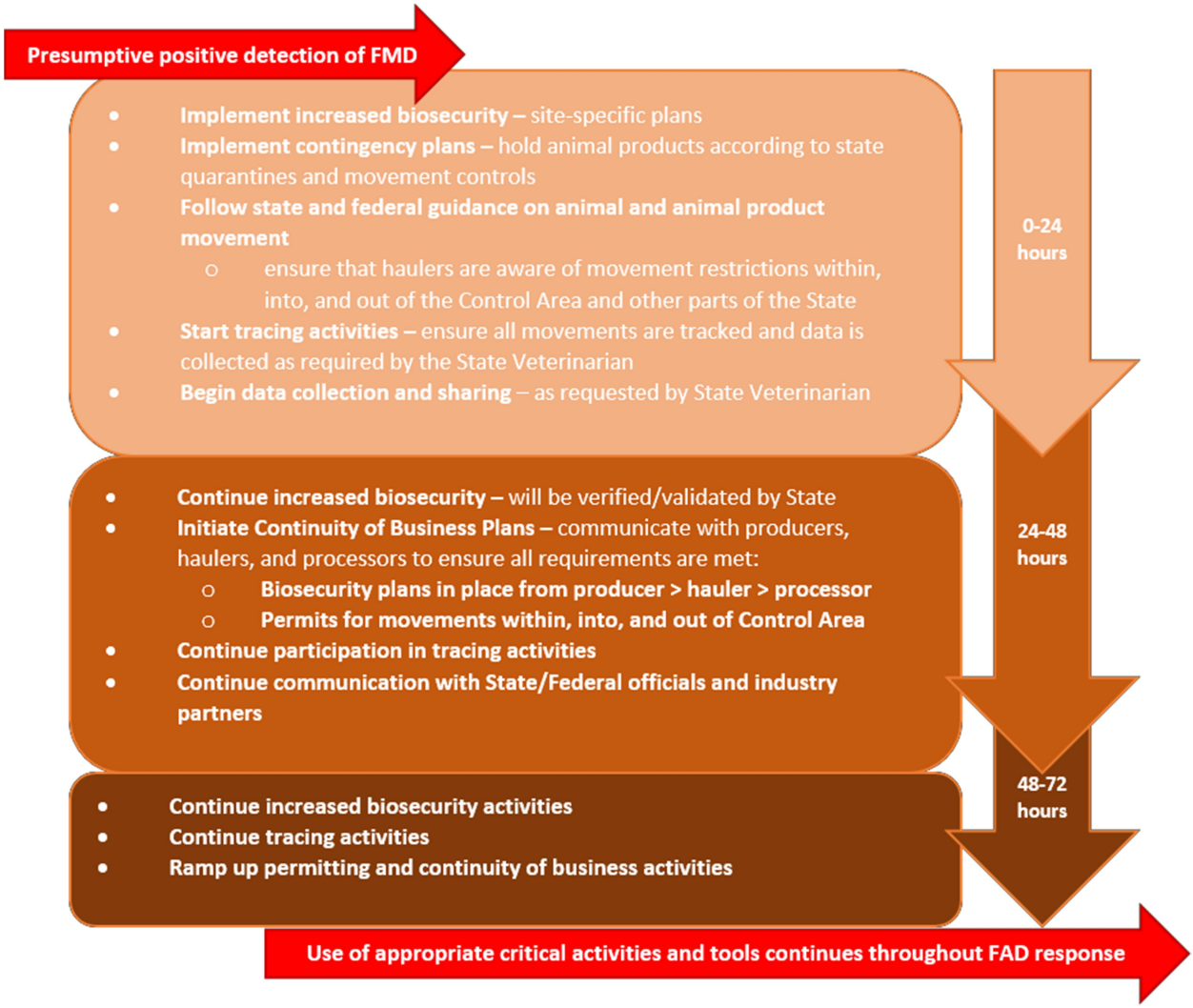
The figures below outline some of the initial responses that producers, haulers, and processors must take in the first 72 hours of a FMD outbreak in order to receive movement permits for milk. Please be aware that these are specific to requirements for movement permits and are subject to change.

Figure D-1 PRODUCER: Critical Movement and Control Response Activities from 0-72 hours



Source: Adapted from NAHEMS Guidelines: Quarantine and Movement Control

Figure D-2 HAULER and PROCESSOR: Critical Movement and Control Response Activities from 0-72 hours



Source: Adapted from NAHEMS Guidelines: Quarantine and Movement Control

APPENDIX E: PASTEURIZATION PROCEDURES FOR MILK AND CREAM

The *Foot and Mouth Disease Response Plan: The Red Book* prescribes the following pasteurization procedures for milk and cream for human and animal consumption.

5.10.5.5 PROCEDURES FOR THE INACTIVATION OF FMD VIRUS IN MILK AND CREAM FOR HUMAN CONSUMPTION (ARTICLE 8.7.38)

For the inactivation of viruses present in milk and cream for human consumption, one of the following procedures should be used:

1. a sterilization process applying a minimum temperature of 132˚C for at least one second (ultra-high temperature [UHT]), or
2. if the milk has a pH less than 7.0, a sterilization process applying a minimum temperature of 72˚C for at least 15 seconds (high temperature—short time pasteurization [HTST]), or
3. if the milk has a pH of 7.0 or over, the HTST process applied twice.

5.10.5.6 PROCEDURES FOR THE INACTIVATION OF FMD VIRUS IN MILK FOR ANIMAL CONSUMPTION (ARTICLE 8.7.39)

For the inactivation of viruses present in milk for animal consumption, one of the following procedures should be used:

1. the HTST process applied twice;
2. HTST combined with another physical treatment, e.g., remaining a pH 6 for at least one hour or additional heating to at least 72˚C combined with desiccation;
3. UHT combined with another physical treatment referred to in point 2 above.