

African Swine Fever Continuity of Business

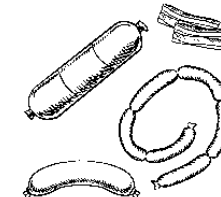
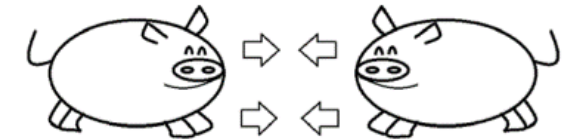
Permitting Requirements: Pre-Movement Isolation Protocol & Diagnostic Testing

July 17, 2023

Permit	
Swine (Gilts) Moving from a Control Zone to a Sow Farm	
Permit number*	
Date of issuance*	
Animal type moving**	
Premise identification number of origin of movement**	
Premises identification number of destination of movement or 911 address**	
Period permit is valid for*	
Name of person that collected samples***	
Electronic or hand signature of permit applicant****	

African Swine Fever (ASF) Key Facts

- The virus spreads via
 - **direct contact** between infected pigs shedding the virus in blood, feces, urine
 - **indirect contact** with ASF virus, ie, environmental contamination from blood, feces, urine, contaminated fomites: equipment, vehicles, people
 - **ingestion of contaminated products by pigs**—infected pork or products fed back to pigs—swill, waste, garbage
 - bite from infected soft tick vector, *Ornithodoros*



The ASF incubation period

in which clinical signs in pens, rooms, barns and pig populations may not be obvious

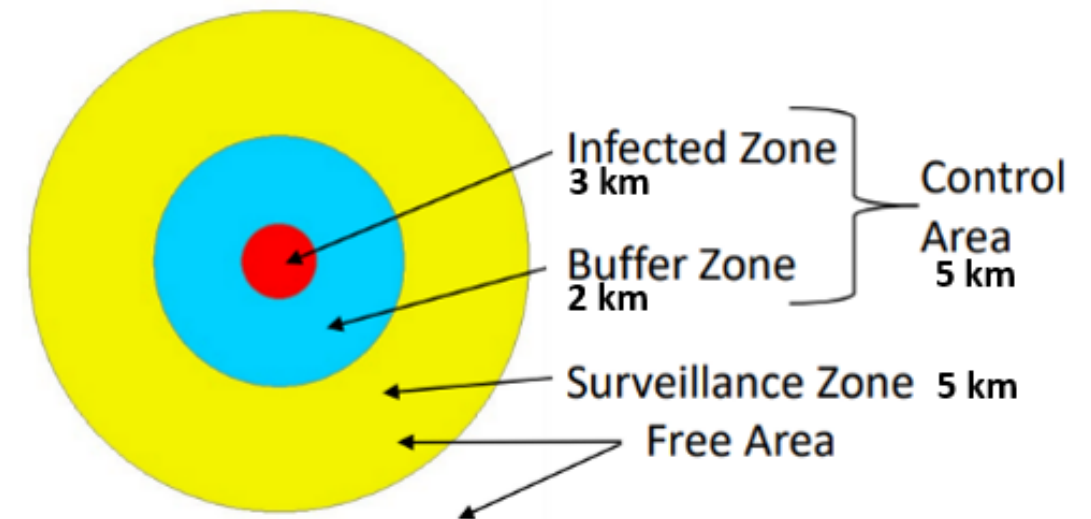
ranges up to 20-24+ days

ASF Response Strategy

primary control strategy

Establish Control Areas around Infected Premises or infected feral pig locations

- For ASF the minimum size for a Control Area is 5 km beyond the perimeter of the Infected Premises.
- Prevent virus from coming into contact with susceptible swine
- Supported by quarantine and movement controls* with enhanced biosecurity
- Contact tracing emphasized



*Movement controls allow entities to make necessary movements without creating an unacceptable risk of disease spread.

Movement Controls: permit types during a foreign animal disease (FAD) incident

Specific permits

- Aid in controlling and containing the FAD outbreak for infected premises
- To achieve biocontainment (keeping the disease on Infected Premises) and bioexclusion (keeping the disease out of non-infected premises)
- Allow critical or essential movements
 - to ensure animal welfare, eg, feed trucks
 - related to response activities like depopulation and disposal

Continuity of business (COB) permits

- Facilitate continuity of business for non-infected premises which are inside the Control Area
- For movements from At-Risk Premises or Monitored Premises*
- Two types
 - Operational—for the non-infected premises to continue operations during an outbreak (e.g., equipment, service crews, and carcasses)
 - Production—Used for movements of animals and animal products into the supply chain for feeding, growing, processing, or to market

*A monitored premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises

Continuity of Business Permits

general requirements

1. **Permit Class.** This indicates the origin/destination location with regard to the Control Area, e.g. into, out of, or within Control Area.
2. **Permit Reason.** The reason a permit is required, e.g. direct to farm, into commerce, or direct to slaughter.
3. **Origin Premises.** The premises that the movement originates from.
4. **Destination Premises.** The premises where the movement ends.
5. **Items.** This is the item that is permitted and allowed to move, e.g. manure/litter, feed, eggs, groups and species of animals; species of animals also needs to be defined.
6. **Item Class.** Further description about the species/type of this animal.
7. **Duration/Span of Permit.** This provides information about the first movement date for movements associated with a permit, how long the movement(s) are expected to continue, and how long the permit is valid for.

ASF Continuity of Business Permits specific requirements

- Meeting the specific requirements for ASF permits for Control Area movements significantly reduces the likelihood of infected but undetected pigs spreading ASF, considering
 - frequency of movement of the specified swine type,
 - the number of different destination premises swine from the same originating premises are moved to,
 - the potential extent of continued disease spread, and
 - variation in industry practices.
- Maintaining increased biosecurity on a premises in the days leading up to a swine movement will reduce the risk of disease exposure.
 - This specific mitigation measure is referred to as a pre-movement isolation period (PMIP).

ASF Continuity of Business Permit: Pre-Movement Isolation Period (PMIP)

A PMIP combined with pre-movement diagnostic testing decreases the risk of moving infected but undetected pigs from a premises, compared to implementing testing alone.*

PMIP Duration and Testing Frequency

- Implement heightened biosecurity standards on the entire premises for
 - 5 days before transfer movements
 - 3 days before movements to slaughter
- Sample pigs for diagnostic testing twice within the PMIP, prioritizing dead and sick pigs.

*Based on a within-herd ASF transmission model, see final slide.

PMIP: ASF COB Permit Criteria

general and biosecurity

- The premises must meet the criteria for a Monitored Premises designation and have a premises identification number.
- The pre-movement isolation period is 3 or 5 days, during which biosecurity is heightened (depending on movement type)
 - Strict biosecurity requirements are listed for
 - people or items crossing the line of separation and
 - cleaning & disinfection of vehicles or items entering the site.
 - Movements on/off premises with appropriate biosecurity are described:
 - Allowed—eg, feed, essential personnel, emergency needs
 - Prohibited—eg, live animals, mortality/ manure/ garbage removal.

Attachment 1 of 1

for gilts moving from a premises that meets the criteria for a Monitored Premises designation and has a [National](#) premises identification number.

Pre-Movement Isolation Period and Pre-Shipment Testing Protocol¹

The pre-movement isolation period is 5 days. The listed requirements are applicable until the permit is processed. If a movement is approved, no other movements are allowed onto the premises until the permitted movement has completed.

- Strict biosecurity is a requirement for the pre-movement isolation period. Strict biosecurity includes, but is not limited to the following:
 - All people crossing the line of separation must either shower and change into site specific clothes/footwear or arrive at the site having showered, doff street clothes, wash hands and any other body surface not covered by clothing, and don site-specific clothes/footwear as crossing the line of separation.
 - All people entering the site must have had 5 days of separation (downtime) from any other swine.
 - All allowed vehicles and equipment entering the site must be cleaned and disinfected prior to entering the site.
 - Feed truck delivery people are prohibited from crossing the line of separation or entering any of the barns with swine in them.
 - Emergency maintenance people must ensure any equipment that is brought in is cleaned and disinfected at the line of separation.
 - People bringing in any essential medications must ensure that it is either cleaned and disinfected or is removed from the outer packaging as it crosses the line of separation.
- Only essential movements are allowed into a site during the pre-movement isolation period.
 - Allowed movements with appropriate biosecurity:
 - Feed
 - Caretakers and essential personnel
 - Emergency maintenance and needs, e.g., medical
 - Propane
 - Essential medications

¹ This protocol is applicable to Monitored Premises, defined as a premises that objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Testing protocol for swine moving from a control area to slaughter may also be used for premises to gain monitored status in a control area with the approval of the Designated Reporting Officer and final approval from the Incident Commander(s).

PMIP: ASF COB Permit Criteria

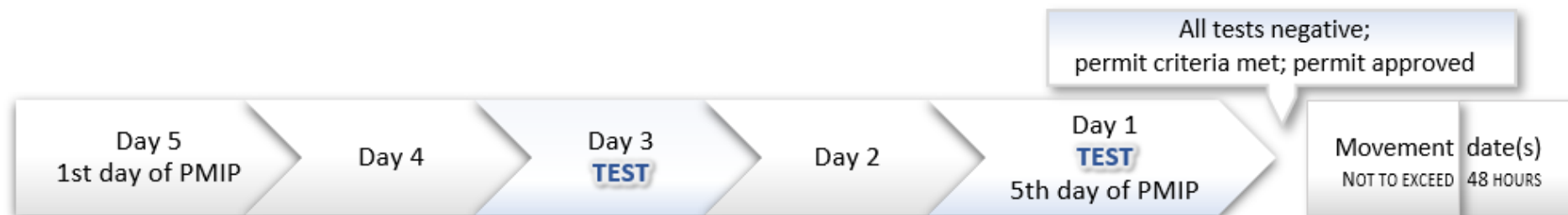
testing protocol (example: gilt movement, 5-day protocol)

Testing priority

1. Dead pigs
2. Sick pigs
3. Pigs in hospital/sick pens
4. General population

Testing* at 3 days pre-movement and at 1 day pre-movement in a 5-day PMIP

Test all dead swine in each barn up to 31 samples. If testing of dead swine does not produce 31 samples for the barn, sample animals in accordance with the priority list above to meet the balance.



*Approved sample types: whole blood, tonsil, spleen, lymph node, spleen swab, blood swabs, dried blood spots.

Whole blood, tonsil, spleen, and swab sample types can be pooled up to 5 pigs per pen/room/barn (i.e., pool samples starting at the smallest unit that pigs are grouped).

Sample the specified number of pigs per barn, or the largest contiguous structure with a common roof that pigs are grouped on a premises.

ASF COB Permit Criteria

traceability & movement requirements

Traceability of testing

All samples must either be collected by an accredited veterinarian, or a certified swine sample collector approved by the appropriate state animal health official. The request for permit must include identification of who collected the sample.

Movement requirements

- a. All trucks hauling live swine must be cleaned and disinfected after delivery of swine. Cleaning and disinfection include, but may not be limited to, anything that has been in direct or indirect contact with the swine (does include driver).
- b. All movements under a permit must be completed within 48 hours and reported to the state animal health official that approved the permit.
- c. The originator of the permit request confirms that the destination premises is aware of and accepts the movement.

PMIP: ASF COB Permit Requirements by swine movement type

	Movement Type	Duration PMIP (days)	Test Days Before Movement	# Samples	Test Priority
transfer movements	Gilts to sow farm OR Nursey pigs to finishing	5	3 & 1	31/barn	<ol style="list-style-type: none"> 1. Dead 2. Sick 3. Animals in hospital/sick pen 4. General population
	Wean pigs to nursery or wean to finish OR Sows from one farm to another (parity segregation)	5	3 & 1	31/barn + 31 from the piglets to be weaned or sows that are moving	<ol style="list-style-type: none"> 1. Dead sows/boars 2. Sick sows/boars (incl. aborted sows) 3. Sick growing pigs > 5 days of age, if applicable 4. General population
	Semen from boar stud to sow farm or gilt development unit--Initially	5	1 + all sick and dead each of the 5 days	All boars	<ol style="list-style-type: none"> 1. All boars
	Semen from boar stud to sow farm or gilt development unit—Routine ops	N/A	1 + all sick and dead every day	Boars whose semen is to be shipped	<ol style="list-style-type: none"> 1. Boars whose semen is to be shipped
to slaughter	Market swine to slaughter OR Cull pigs to slaughter OR Sow/Boars to slaughter	3	3 & 1	31/barn	<ol style="list-style-type: none"> 1. Dead 2. Sick 3. Animals in hospital/sick pen 4. General population

Supporting FAD PReP Materials



VS National Training and Exercise Program Resource Guide

Thank You

Strategic Plans—Concept of Operations Documents and NAHEMS Guidelines

- *APHIS Foreign Animal Disease Framework: Roles and Coordination* (FAD PReP Manual 1-0)
- *APHIS Foreign Animal Disease Framework: Response Strategies* (FAD PReP Manual 2-0)
- *APHIS Foreign Animal Disease Framework: Information Management and Reporting* (FAD PReP Manual 3-0)
- *APHIS FAD Investigation Manual* (FAD PReP Manual 4-0)
- *Permitted Movement* (FAD PReP Manual 6-0)
- Continuity of Business
- Biosecurity
- Quarantine and Movement Control
- Information Management
- Cleaning and Disinfection
- Disposal
- Surveillance, Epidemiology, and Tracing
- Health and Safety
- Personal Protective Equipment
- Mass Depopulation and Euthanasia
- Vaccination for Contagious Diseases
- Wildlife Management & Vector Control for FAD Response in Domestic Livestock



ASF Continuity of Business Permit PMIP Background

Permitting PMIP scenarios—gilt movement: *based on Univ of MN's within-barn ASF transmission model**

Assumptions

- 31 samples per barn
- Targeted sampling of sick/dead pigs
- All scenarios include testing if increased mortality (above 5/1000)
- 100% effective biosecurity
- Moderately virulent ASF strain
- Herd exposed 1 to 30 days pre-movement

Max benefit, manageable →

Per barn risk of moving infected but undetected pigs (example: gilt movement)			
Duration PMIP (days)	Test Days Before Movement	Detection of Disease if Present	Infected Pigs at Movement (if disease present)
0	1	77%	0-4
0	3 and 1	78%	0-3
3	3 and 1	87%	0-3
5	3 and 1	93%	0-4
7	5, 3, and 1	98%	0-5
5	Testing only if increased mortality	44%	1-109

*University of Minnesota Secure Food Systems Team's within-herd (barn) ASF transmission model (ASF Shiny app, results from 2,000 model iterations), based on: Ssematimba et al. 2002 "African swine fever detection and transmission estimates using homogenous versus heterogenous model formulation in stochastic simulations within pig premises." Open Vet J, Vol 12(6): 787-796