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MEMORANDUM CIRCULAR

No: 23

Series of 2022

SUBJECT: TECHNICAL STANDARDS ON THE RECOMMENDED PROCEDURES FOR CLEANING AND DISINFECTION (C&D) FOR PREVIOUSLY ASF AFFECTED FARMS AND C&D MONITORING CHECKLIST

The conduct of C&D is an important step before the placement of sentinel animals in previously ASF affected farms. Proper procedures during cleaning, disinfection and drying must therefore be performed to ensure the cleanliness of the premises before introduction of sentinel animals.

The following steps are therefore recommended during C&D after depopulation has been completed:

A. Cleaning

1. Remove all organic debris from the farm. Treat with caustic soda and spray with hydrated lime prior to washing and removal of organic debris.
2. Uproot/cut grass to expose rat burrows and hiding places.
3. Clean and wash all equipment, all movable and non-movable facilities, and grounds around the buildings. Empty and clean all refrigeration equipment.
4. Empty lagoon and pits where pig manure is collected. The solid wastes removed should be buried in a pit lined and topped with hydrated lime. Alternate procedure is to stop using the pit and mix 100 kg of caustic soda/cubic meter of lagoon or pit.
5. Institute a pest management program for rodents and insects and start a bait system. Repair and install physical barriers such as bird proofing nets.
6. Use a foaming agent to improve disinfectants' effectiveness when cleaning for the entire facility/building.

B. Disinfection

1. Disinfect all equipment, all movable, non-movable facilities, and grounds around the buildings. Focus on equipment where viruses are likely to persist, i.e. feeders, nipple drinkers, water troughs, dunging area, etc.



2. Use only approved disinfectant for ASF Control. Ensure correct dilution, coverage and contact time. Annex A provides a list of OIE approved disinfectants against ASFv.

C. Rest Period

1. A minimum rest period of 7 days starting from the last date of cleaning and disinfection should be done to allow disinfectants to take effect.
2. Premises should remain empty after cleaning and disinfection.

After completion of the entire C&D process, a physical inspection will be performed by Local Government Units (veterinary/agricultural authorities and/or barangay biosecurity officers). Annex B shows the parameters which will be audited by LGUs.

For your reference and information.

Done this 13th day of June 2022.


REILDRIN G. MORALES, DVM, MVPHMgt.
Officer-in-Charge, Director

Annex A. List of Disinfectants against ASFv as listed by the OIE.

Table 1. List of Disinfectants and their characteristics

Type of Disinfectant	Characteristics
Formaldehyde (Formalin)	<ul style="list-style-type: none"> - ASFV inactivated with 3/1000 formalin (30 minutes) - Broad spectrum - Water-based solution with 35% formaldehyde is called Formalin; Most often used against ASFv as a vapour for disinfecting electrical device - Highly toxic to human
Glutaraldehyde	<ul style="list-style-type: none"> - Broad spectrum - Works most strongly at pH 7.5 +/-0.85 - Less corrosive to metals, rubber and plastics - Highly toxic to human
Sodium hypochlorite (Bleach) Calcium hypochlorite (bleach powder)	<ul style="list-style-type: none"> - ASFv inactivated with 0.03%-0.5% chlorine (30 minutes) - Widely used for hard-surface disinfection, broad spectrum - Relatively low residual toxicity - Corrosive to metals - Efficacy reduced with organic matter - Effectiveness diminished with extended storage
Iodine compounds	<ul style="list-style-type: none"> - ASFv inactivated 2-3% iodine compounds (30 minutes) - Stable in storage - Less toxic to human - Corrosive to metals - Efficacy rapidly reduced with organic matter
Calcium hydroxide (Lime)	<ul style="list-style-type: none"> - ASFv inactivated with 1% calcium hydroxide (3 min), 0.5% calcium hydroxide (30min) - Widely used in livestock production including treatment fo slurries and waste water treatments - Apply on the ground or floor of the barns to be visibly white. In case of disease outbreak, apply sufficient amount (1kg/m²) - East to obtain, easy to apply - Requires long contact time and moisture - Frequent application is required when used outdoor
Sodium Hydroxide (Caustic soda)	<ul style="list-style-type: none"> - ASFv inactivated with 8/1000 sodium hydroxide (30 min) - ASFv inactivated with 1% sodium hydroxide (3min), 0.5% sodium hydroxide (30min) - The strongest viricidal agent - Effective in the presence of organic material - Highly dangerous and need special caution when handling
Quaternary Ammonium compounds (QACs)	<ul style="list-style-type: none"> - Commonly used in ordinary environmental sanitation - Generally low toxicity but prolonged contact can irritate skin and respiratory tract
Phenol (clesol, Lysol, lysephoform, creolin)	<ul style="list-style-type: none"> - ASFv inactivated with 3% ortho phenylphenol (30minutes) - Bacteriostatic at concentrations of 0.1% - 1%; Bactericidal and fungicidal at 1%-2% - Effect is enhanced with EDTA and warm temperature - Effect is decreased by an alkaline medium, lipids, soaps, and low temperatures, but more active in the presence of organic material than other disinfectants - Cresol has lower toxicity and stronger disinfecting activity than phenol

Multi-constituent compounds - Apply according to the product instructions

Table 2. Choice of disinfectants by purpose

Purpose	Disinfectants
Footbath	QACs Hypochlorite Lime Any other disinfectants
Vehicle spraying	QACs Glutaraldehyde Multi-constituent compounds
Animal housing, cages (spraying)	QACs Glutaraldehyde Sodium hypochlorite Multi-constituent compounds Any other disinfectants <i>Note: Possible corrosion should be considered</i>
Entrance of the premises, areas around animal housing	Lime
Electrical equipment (gas)	Formaldehyde
Clothing	Sodium hypochlorite Calcium hypochlorite Multi-constituent compounds



Annex B. C&D Monitoring Checklist (to be accomplished by veterinary/agricultural authorities and/or barangay biosecurity officers)

Farm Name:	
Owner	
Address:	
Date:	
Checklist Completed by: (Name/Position/Agency)	

Records on Cleaning and Disinfection

Last date of Depopulation	
Start Date of Cleaning and Disinfection	
Last Date of Cleaning and Disinfection	
Disinfectant Used (Formaldehyde, Sodium hypochlorite, caustic soda, glutaraldehyde/formic, sodium or calcium hydroxide, phenols, sodium chloride, potassium peroxymonosulfate)	

Parameters	Observed Yes / No
No pigs were present during the entire Cleaning and Disinfection	
Removal of organic debris (dirt, feces, left over feed, cobwebs, debris and other objects) in the holding pens	
Removal of overhanging electrical wires and turning off of electrical power in holding pens	
Recommended disinfectant was used for Cleaning and Disinfection	
The entire farm premise, including holding areas and equipment, was clean and disinfected	
Completed the 40-day period of Cleaning and Disinfection	
Disinfectant, disinfectant equipment, pest control is present in the farm	
Construction and/or repair of pig pens (with fence) was performed	

