

**Guidelines for Specific Infectious Disease of
Domestic Animals Caused by
Classical Swine Fever**

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Agriculture, Forestry and Fisheries**

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Preamble

- 1 Classical swine fever (hereinafter referred to as “CSF”) is a representative example of “trans-boundary animal diseases,” defined by international organizations, including the Food and Agriculture Organization of the United Nations (FAO), as “diseases that spread beyond national borders, with high significance in terms of the economy, trade, and food security of the affected country, and that require multinational cooperation to prevent their spread.”
- 2 CSF used to spread all over Japan. With improved biosecurity and penetration of the live vaccine developed in Japan, no outbreak of the disease has been confirmed in Japan since 1992 and the vaccine has not been used since April 2006. As a result, on April 1, 2007, Japan declared itself a CSF-free country as stipulated in the bylaw of the World Organization for Animal Health (hereinafter referred to as “OIE”) and was accredited as a CSF-free country in 2015.
- 3 On September 9, 2018, however, an outbreak of CSF occurred in Japan for the first time in 26 years. Cases of infection among domestic pigs (defined as domestic pigs and domestic boars, hereinafter the same shall apply) were confirmed, mainly in farms in the Tokai region. There is an urgent need to control the spread of disease affecting pigs and wild boars and for a subsequent cleanup. Therefore, a part of this guideline was amended in October 2019 and preventative inoculation procedures were launched in regions with high risks of infection. Consequently, Japan’s disease-free status was lost in September 2020. Moreover, since September 2020, CSF was confirmed among domestic pigs in farms with inoculated animals in Gunma, Yamagata, Mie, Wakayama, Nara, Tochigi, Yamanashi, Kanagawa Shiga, Miyagi, Ibaraki, and Tokyo Prefectures. As of December 2022, a total of 85 cases in 181 prefectures were confirmed.
- 4 As for the infection spread among wild boars, “the Interim Summary of Epidemiological Investigation on CSF” (by the MAFF Expanded CSF Epidemiological Investigation Team on August 8, 2019) suggests the wide involvement of wild boars in a virus invasion into a farm, responding to which constitutes one of the key challenges. Therefore, it is necessary for Administrative Organs (the State, prefectures and municipalities; hereinafter the same shall apply) and related organizations to collaborate to strongly promote measures against wild boars such reducing their population, spraying oral vaccine to reduce the risk of infecting domestic pigs
- 5 Additionally, while districts where the infection risk for domestic pig is high (based on infection rates among wild boars) are designated as vaccination-recommended areas for CSF, occurrences of CSF are continuously identified even in inoculated districts. Since it is inevitable that a certain number of animals will not obtain sufficient immunity even

after vaccination and it is therefore impossible to completely prevent all animals from being infected, strict observance of the Biosecurity Standards is important to reduce the risk of infection, even in inoculated districts. “The Measure to Prevent Future Infection with Identification of Infected Animals in CSF Vaccinated Farms (suggestion)” (Joint session of Animal Hygiene Subcommittee of Food, Agriculture, and Rural Policy Council, 71st Cattle and Pig Disease Subcommittee and the 14th Review Meeting of Expanded CSF Epidemiological Investigation Group, 15th of January 2021) have also pointed out that blocking the presumed entry points of CSF is extremely important. With the expansion of African Swine Fever (hereinafter referred to as “ASF”), it becomes more important than ever to enhance the biosecurity standards and to promote their strict observance.

6 Moreover, the CSF virus (hereinafter referred to as “CSFV”) isolated from domestic pig is presumed to have entered from China or its neighboring countries in the interim summary quoted in 4 above. Strengthening borders through the cooperation of citizens, travelers to and from Japan, and considering the possibility that CSFV may enter into Japan at any time, pig owners (if there exists a managing entity other than a relevant owner of the domestic pigs, the managing entity; hereinafter the same shall apply), the administrative organs and related organizations should take a concerted approach to establish an effective disease control system.

7 At the same time, these Guidelines shall be reviewed whenever there are changes in CSF outbreaks, developments in scientific insights or technologies. These Guidelines shall also be reviewed at least every three years.

Chapter 1 Basic policies

I Basic policies

- 1 The most critical measures for the control of CSF include “outbreak prevention,” “early detection and notification” and “prompt and appropriate initial response.”
- 2 The Government shall properly implement import and export quarantines of domestic animals and poultry products that may spread infectious pathogens thereof to prevent the entry of CSF into Japan from other countries through travel and trade between Japan and these countries.
- 3 Pig owners have the primary responsibility to prepare for outbreaks and prevent the spread of infectious diseases and, therefore, must endeavor to acquire the necessary knowledge and skills and take appropriate measures such as biosecurity of domestic pig. For this purpose, it is important to observe Biosecurity Standards, such as health monitoring, record-keeping, ensuring proper notification of suspected cases in the early stages, exchanging boots and taking measures to prevent the entry of wild animals such as boars and rodents.

Therefore, Administrative Organs and related organizations shall take all possible measures under the following proper role-sharing to prevent and prepare for outbreaks so that all pig owners can understand the importance and practice them:

- (1) The MAFF provides necessary information to prefectures, pig owners, biosecurity managers (referring to biosecurity managers provided in Article 12-3-2(1) of the Act on Domestic Animal Infectious Diseases Control (Act No. 166 of 1951; hereinafter referred to as the “Act”) hereinafter the same shall apply), and the related organizations, develops the Biosecurity Instruction Guidelines and also provides the prefectures with necessary instructions and advice to standardize disease control measures at a high level. In addition, the MAFF will promote research on CSF conducted by the National Institute of Animal Health, National Agriculture and Food Research Organization (hereinafter referred to as “NIAH”).
- (2) Prefectures provides necessary information to the pig owners, biosecurity managers, and related organizations during normal times, and thoroughly implement the prevention of CSF outbreak along the Biosecurity Instruction Plant established in line with Biosecurity Instruction Guidelines Additionally, they establish a plan for recruitment of personnel and procurement of materials (hereinafter referred to as “recruitment and procurement plan”) for control measures to be taken in the case of outbreak
- (3) The municipalities and the related organizations cooperate with the prefecture which provide necessary information for pig owners and prepare for an outbreak. They also provide necessary support to the pig owners.
- (4) Manufacturers and distributors of feedstuffs, hosts of events where domestic animals

are gathered such as livestock market, owners of slaughter houses, rendering facilities and other businesses related to the livestock industry (hereinafter referred to as “related business operators”) shall take measures to prevent the spread of pathogens (i.e., disinfection) and shall cooperate with measures conducted by the MAFF and local governments to prevent the outbreak and spread of infectious livestock diseases.

[Note 1] Persons engaged in businesses related to the livestock industry

Persons engaged in businesses related to the livestock industry (hereinafter referred to as "related business operators") include the following:

1 Business operators related to domestic animal

These include venue hosts where are concentrations of domestic animals (i.e., livestock markets), slaughterhouse or rendering facility owners, veterinarians, domestic animal inseminators, livestock sellers, and Japan Agricultural Cooperatives

2 Manufacturers and distributors of livestock-related materials

These include feedstuffs and litter manufacturers and distributors, animal medicine distributors

3 Business operators engaged in transportation and storage related to 1 and 2

These include livestock transporters, feedstuff transporters, dead livestock collectors

4 In the event of an outbreak, appropriate initial response measures must be taken promptly to prevent disease spread and control the situation at an early stage. In farms where domestic pigs that have been determined to be affected or suspect domestic pigs under V-2 are reared, the immediate slaughter of affected animals, disposal of carcasses and disinfection of contaminated areas, and identification of epidemiology-related domestic animals by epidemiological investigation based on XII-1 are of critical importance.

All or part of the cost of control measures shall be paid by the Government as specified by the provisions of Articles 58 to 60-2 of the Act.

Additionally, Article 60-3 of the Act provides that the legitimate budget should be promptly and properly allocated and other necessary financial measures should be taken so that control measures can be taken immediately and appropriately from the early stage of the outbreak.

In consideration of the above, the administrative organs and related organizations shall take immediate and appropriate initial response measures and fulfill their roles in the following manner:

- (1) The MAFF is responsible for developing and revising the epidemic prevention policies that specify initial responses (i.e., the epidemic prevention policies mentioned in VI-2-(1)), and, with the cooperation of relevant ministries, supporting specific control measures of prefectures in line with these policies. Additionally, in

accordance with the Act, the Government shall allocate the budget immediately and in a proper manner.

- (2) The prefectures shall implement specific control measures immediately and appropriately according to the epidemic prevention policies in (1) above and the recruitment and procurement plan formulated in advance in accordance with II-2-2-(1), and shall identify epidemiology-related domestic animals at an early stage through an epidemiological investigation based on XII-1.
- (3) The municipalities, related organizations and related business operators shall support the prefecture when it conducts concrete control measures. (If the prefecture entrusts the conduct of control measures to the municipalities or related organizations, the costs involved in the relevant control measures shall be included in those to be paid by the Government according to the Act.).

5 Wild boars can be a source of CSF and are key factors in the spread of infection. It is necessary to monitor the invasion of CSFV among wild boars, and when invasion is confirmed, all possible measures to prevent the virus from spreading among wild boars or invading farms shall be taken. Therefore, Administrative Organs and related organizations shall take all possible countermeasures against CSF of wild boars under the following role-sharing:

- (1) The national government establishes basic policies to correctly confirm the invasion of CSFV among wild boars and to prevent wide spread of infection as well as support prefectures' specific control measures which is in line with the basic policies.
- (2) Prefectures promote countermeasures against wild boars referencing the basic policies in (1) and considering the actual circumstances of prefectures.
- (3) Municipalities, related organizations and related business operators cooperate with specific countermeasures implemented by prefectures.

6 When the Government fail to control the spread of infection by initial response measures based on the epidemic prevention policies stated in IV-(1) above , they review the epidemic prevention policies considering the actual situation, and seek expert opinions from the Subcommittee on Poultry Disease, Committee on Animal Health, Council of Food, Agriculture and Rural Area Policies (hereinafter referred to as "the Subcommittee") as needed, and establish the Emergency Guidelines for Specific Infectious Diseases of Domestic Animals (hereinafter referred to as the "Emergency Guidelines") under Article 3-2(2) of the Act.

Chapter 2 Outbreak prevention measures

Section 1 Outbreak prevention and preparedness for an outbreak

II-1 Efforts in normal times

1 Efforts of the Ministry of Agriculture, Forestry and Fisheries (MAFF)

- (1) Obtain information on the latest overseas outbreaks through mutual exchanges of information with foreign countries and international organizations such as the OIE, and provide information to relevant ministries, prefectures, related organizations as necessary. This information will be made public through the MAFF website, and necessary information will be made available to producers, travelers to and from Japan, foreign workers, foreign technical interns, foreign students, veterinary and livestock university personnel, consumers
- (2) Provide information about the characteristics of CSF, specific precautions to be taken to prevent the spread of the virus into farms (limited to farms raising domestic pigs; hereinafter the same shall apply) and possible control measures at the time of any outbreak to rearing hygiene managers and related organizations. They shall then publicize the concisely summarized information through the MAFF website
- (3) Conduct strict import control measures on animals and livestock products at airports and seaports and shoe sole disinfection for both entrants and returnees. Considering the duration period of CSFV, MAFF shall take strict measures for inquiries to entrants and returnees, inspections and disinfection of their accompanied items. In addition, as food residues (defined as food residues that contain (or may contain) meat and meat products) from foreign countries can be a factor contributing to the invasion of CSFV, appropriate disposition should be conducted.
- (4) Promote garbage management such as a ban on leaving garbage in parks, camp sites and tourist facilities with unspecified human traffic and preventing contact with wild animals in garbage areas in collaboration with the relevant ministries to prevent CSFV from propagating to wild boars through food residues.
- (5) Grasp the actual condition of preventive measures in each prefecture, the level of preparedness for an outbreak, and the coordination among the municipalities, the police, the Japan Self-Defense Forces, veterinary medical associations, producer and farmer groups, develop the Biosecurity Instruction Guidelines and provide necessary guidance and advice to prefectures in order to standardize the disease control measures to a high level in all prefectures. Support the human resource development by the prefectures as necessary.

2 Efforts of the prefectures

- (1) Secure and train prefectural animal health inspectors who are necessary to provide instruction on biosecurity management to pig owners and to provide smooth initial responses in the event of an outbreak, as well as list up veterinarians in consultation with veterinary medical associations so that part-time prefectural animal health

inspectors can be secured in temporary or urgently if necessary. Additionally, list up prefectural animal health inspectors who will be dispatched as support in the event of an outbreak in other prefectures.

- (2) Immediately provide the information concerning the conditions of an outbreak provided according to 1-(1) above with all pig owners and related organizations by facsimile, telephone, e-mail or mail as needed.
- (3) Establish the Biosecurity Instruction Plan based on the Biosecurity Instruction Guidelines and provide guidance to pig owners to ensure that they comply with the Biosecurity Standards.
- (4) Disseminate the concept of the importance of compliance with Biosecurity Standards to the organizations that mediate between the foreign workers, foreign technical trainees or foreign students and the farms and universities that accept them and provide guidance and advise as needed.
- (5) Conduct the following measures on a regular basis for pig owners (owning at least 6 domestic pigs) to raise awareness of disease control, to standardize their compliance with the Biosecurity Standards to a high level, and to promote their understanding of and cooperation in the introduction of disease control measures through disseminating possible disease control measures upon an outbreak.
 - (i) On-site inspections of farms based on Article 51 of the Act (generally once a year or more.)
 - (ii) Holding workshops
- (6) Inform related Direct stakeholders that group livestock (i.e., livestock markets, slaughterhouses, rendering plants, and common compost facilities) to implement disinfection facilities to prevent cross-contamination, and also follow the Biosecurity Standards, such as disinfection of the entrance to biosecurity areas known to related business operators who visit farms.
- (7) Grasp the information necessary for initial epidemic preventative action (i.e., farm locations, livestock species, number of rearing animals, and the disposal or incineration facilities (hereinafter referred to as “animal disposal area”) so that movement restriction zones specified in IX-1(1) or XX-1 can be immediately identified and organize the information using GIS
- (8) Confirm no food residues are supplied to pig owners. If any supply emerges, the prefectures shall provide guidance that the food residues should be properly treated and that untreated residues should be completely separated from areas raising domestic pigs

[Note 2] Proper treatment of food residues containing livestock products

If food residues include or may contain meat and meat products, they shall be processed appropriately according to the Act on Safety Assurance and Quality Improvement of Feeds (Act No. 35 of 1953) and treated in line with Biosecurity Standards.

- (9) Enhance cooperation among Livestock Hygiene Centers, private veterinarians, and private inspection bodies for prevention of outbreak and early detection, considering the situation where as pig farming has become larger in scale and more efficient or gotten their operations of each employee more segmented, they consult biosecurity at the farm with private veterinarians.
- (10) Make efforts to extend the incumbency of a chief officer in charge of disease control in the prefectural animal health division/unit and when the chief officer is to be transferred, make sure that there is enough time for the transfer of duties. Also make efforts to appropriately transfer the records and experiences regarding disease control to successors, taking an opportunity of outbreak simulation exercise.

3 Efforts of the municipalities and related organizations

- (1) Cooperate with the MAFF and prefectures in their measures as described in 1 and 2 above.
- (2) Support pig owners in their efforts toward outbreak prevention.

4 Efforts of related business operators

- (1) Take measures to prevent the spread of pathogens (i.e., disinfection).
- (2) Cooperate with the MAFF and local governments in their measures as described in 1 through 3 above.

II-2 Establishment and strengthening of systems to prepare for outbreaks

1 Efforts of the Ministry of Agriculture, Forestry and Fisheries (MAFF)

- (1) Establish and maintain a personnel dispatch system incorporating the human resource development program for individuals to be dispatched, and make a list of candidates in advance so that disease control experts and emergency support teams can immediately be dispatched to a site in case of an outbreak.
- (2) Take necessary measures to ensure sufficient vaccines in preparation when vaccinations are required to prevent the spread.
- (3) Establish the system to assure a smooth supply of hygiene materials for inspection and control measures, in preparation of outbreak, demand for hygiene materials used for inspection and control measures may increase rapidly.
- (4) Establish the system for cooperation to support control measures of the prefectures through the cooperation of related ministries and agencies in case of an outbreak.
- (5) Regularly hold outbreak simulation exercises in all prefectures and clarify and resolve any problems.

2 Efforts of the prefectures

- (1) Preemptively formulate a recruitment and procurement plan, in the event of an outbreak in the largest farm within the prefecture and forward them to Animal Health Division, Food Safety and Consumer Affairs Bureau of the MAFF (hereinafter referred to as “the Animal Health Division”) toward the smooth implementation of initial responses in case of the occurrence, taking the following points into account:
 - (i) The mobilization system shall not be limited to the Livestock Health Department or organizations related to livestock or agriculture. They will include prefectural officials and organizations unrelated to livestock or agriculture. They shall simultaneously attempt to build consensus among stakeholders.
 - (ii) If control measures cannot be taken only through mobilization within the prefecture, personnel of MAFF or National Livestock Breeding Center or prefectural animal health inspectors from other prefectures may be dispatched with consultation with Animal Health Division in advance. If it is still difficult even with these additional mobilizations, they shall consult with Animal Health Division regarding a request to dispatch Self Defense Force in advance.
 - (iii) Lists of retainers accustomed to handling domestic pigs and drivers of special automobiles (i.e., heavy machines and forklifts. herein after the same shall apply) shall be made.
 - (iv) Storage and additional securement of hygiene materials or medications and availability of special automobiles shall be checked, and storage space for carcasses shall be allocated. Additionally, agreements on procurement of materials and special automobiles shall be concluded as far as possible.
- (2) Arrange disinfection points and organize location information, fully utilizing GIS so

- that initial responses can be taken quickly and smoothly in the event of an occurrence.
- (3) In addition to sternly instructing pig owners to allocate burial places in advance, similarly guide them to foster understanding in their neighborhoods. If these efforts are not sufficient, take the following measures and ask the pig owners to take necessary actions in implementing these measures.
- (i) Provide information about available sites and explain it to neighborhood residents in collaboration with municipalities as necessary.
 - (ii) Collaborate with municipalities, other related organizations, and local councils to concretely identify usable public lands in each area. Additionally, prefectural governors ask the Minister of Agriculture, Forestry, and Fisheries and mayors of municipalities for their cooperation, based on Article 21-7 of the Act, if necessary.
 - (iii) If incineration facilities or rendering plants (hereinafter referred to as “incineration facilities”) are available, list them and negotiate with prefectures and municipalities who administrate their locations regarding their use in the event of epidemic and conclude an epidemic prevention agreement to the extent possible. Additionally, consider utilizing the equipment owned by the MAFF so that pig owners can adequately prepare for burial facilities
 - (iv) Decide routes and methods of transport to public disposal sites or incineration facilities. Additionally, provide explanations to neighborhood residents as necessary.
- (4) Instruct the large-scale owners—especially owners of numerous domestic pigs—whose prefectural governors recognize the considerable time would take for stamping-out of their stock in case of epidemic, to formulate contingency plans and report them to the Animal Health Division after confirming the contents.

[Note 3] Formulating the contingency plan of large-scale owners

The prefecture instructs large-scale owners defined in II-2-2(4) of the Guidelines to formulate the contingency plan. In evaluating its content, refer to the recruitment and procurement plan formulated by the prefecture, and confirm that following items are included:

- 1 Flow diagram of the farm as control measures are taken.
- 2 Personnel necessary to engage in control measures to their completion.
- 3 Materials necessary for farms through the completion of the control measures.
- 4 Disposal guidelines for carcasses (i.e., concrete steps of incineration or burial and explanations of land usage for neighborhood residents)

- (5) Considering that cooperation with crisis management departments within the prefecture and the cooperation of municipalities, police, Self-Defense Force, veterinary medical associations and producer and farmer groups is necessary in the event of outbreak, confer with the liaison with those stakeholders, share information such as existence of pig farms in the area, the recruitment and procurement plan

formulated along (1) and the status of the action from (2) to (4), and decide role-sharing in the event of epidemic to sort out collaboration.

[Note 4] Development of collaboration and cooperation pertaining to wild animals

Given the need to properly take measures to prevent the spread of virus through wild boars and precisely confirm their invasion status especially at the time of any outbreak, prefectures shall establish cooperation and collaboration systems among Administrative Organs and related organizations including competent Livestock Health Department, Wild Animals Damage Prevention Office (MAFF) and Office for Wildlife Management (MOE) in the prefecture through investigations on the infectious statuses of pathogen infectious diseases among wild boars.

- (6) Hold practical outbreak simulation exercises in accordance with each local situation following a schedule provided by the MAFF, and identify potential problems and solve them so that all parties concerned, including all relevant divisions/units for emergency control within the prefecture, neighboring prefectures, municipalities, the police, the Self-Defense Forces, veterinary medical associations, producer and farmer groups can take concerted actions in introducing initial response measures in a timely and appropriate manner.

Organize contingency plans, including prior preparation during normal times and actions to take in case of occurrences, and role-sharing with collaboration among related parties or public health division/unit in the prefecture, taking it into consideration that epidemics tend to start at events such as livestock markets, where domestic animals are gathered, and facilities such as slaughterhouses.

- (7) Make effort to respond in a concrete manner, such as establishment of a consultation center, by collaboration with the general affairs division/unit or mental health division/unit within the prefecture, since during an outbreak, pig owners in affected areas and personnel in charge of control measures may be subjected to extraordinary mental and physical stress.
- (8) Establish an investigative system to monitor the spread of CSFV among domestic pigs and wild boars appropriately so as to quickly detect occurrences.

3 Efforts of the municipalities and related organizations

- (1) Cooperate with the MAFF and prefectures in their efforts as provided in 1 and 2 above.
- (2) Support pig owners in their efforts toward outbreak prevention and spread prevention.

4 Efforts of related business operators

- (1) Take measures to prevent the spread of pathogen (i.e., disinfection).
- (2) Cooperate with the efforts of the MAFF and local governments as provided in 1 through 3 above.

Section 2 Surveys of viral spreading and wild boar countermeasures

III-1 Survey of the spread of the virus

1 Detection and diagnosis of abnormal pigs by clinical tests

Prefectures shall conduct on-site inspections on farms within the prefecture (exclusive to farms rearing at least six animals) once a year as a general rule pursuant to the provision of Article 51-(1) of the Act, and detect domestic pigs that show symptoms in IV-2-(3) (hereinafter referred to as “abnormal pigs”) by clinical tests, taking a prospect that some virus strains of CSF show no clear clinical sign into consideration. Diagnosis shall be followed for the detected abnormal pigs.

2 Antibody prevalence surveys

Prefectures shall conduct antibody prevalence surveys (as a general rule, using the ELISA method) on a number of farms necessary to detect 5% prevalence with 95% confidence level according to the number of farms in the prefecture.

[Note 5] Antibody prevalence surveys

Antibody prevalence tests on domestic pigs, which do not undergo breeding stock tests, (domestic pigs and domestic boars; hereinafter the same shall apply) pursuant to the provision in Article 4-1 of the Act on Improvement and Increased Production of Livestock (No. 209 of 1950), shall be regularly conducted after planning the number to be annually investigated referencing the following:

- 1 Domestic pigs to be investigated are all those fed at non-vaccinated farms/facility. Farms/facility and domestic pigs to be investigated shall be randomly sampled.
- 2 As for the number of farms/facility necessary to detect 5% infection with 95% confidence level, the number of farms/facilities to be annually sampled shall be determined according to the following table:

No. of farms in prefecture	No. of sampled farms/facility
1-18	All
19-25	19
26-34	26
35-49	35
50-100	45
101 or more	55

- 3 The total number of farms/facility to be sampled is allocated to each jurisdiction area of Livestock Hygiene Service Center (herein after referred to as “LHSC”) according to the number of farm/facility within the area.

At least 30 domestic pigs per farm/facility (at least five from each pig premise) shall be sampled at random. However, if the farm/facility has 30 or fewer domestic pigs, all shall be sampled.

4 In collecting blood, measures such as marking domestic pigs with spray shall be performed so that collected individual domestic pigs can be identified later.

[Note 6] Antibody prevalence surveys for sire pigs

For sire pigs which undergo breeding stock tests, a result of antibody tests conducted in the breeding stock test can be defined as the result of the antibody prevalence survey prescribed here.

3 Surveys using diagnosis materials

As a general rule, prefectures shall conduct antigen tests and serum antibody tests for CSF and antigen tests for ASF after necropsy examinations, when conducting diagnosis of domestic pig at a Livestock Hygiene Service Center (hereinafter referred to as “LHSC”).

[Note 7] Test method of CSF in surveys using diagnosis materials

Test methods in surveys using diagnosis materials of domestic pigs are as follows, referring to Attachment 1 “Diagnosis Manual of CSF.”

1 Antigen test

Gene detection tests (it means PCR test or real-time PCR tests. Hereinafter the same shall apply), fluorescent antibody method and virus isolation

2 Serum antibody test

ELISA method or Neutralization Test (NT)

4 Survey for wild boars (Article 5-3 of the Act)

The prefectures shall identify the habitats of wild boars with the cooperation of related agencies and organizations (i.e., hunting clubs) and conduct thorough survey on CSF and ASF among wild boars by positively collecting samples from wild boars in order to monitor the spread /invasion of CSF virus.

[Note 8] Matters to check on dead or captured wild boars

When inspecting the dead or captured wild boars by receiving a report from related agencies, hunting clubs, the prefecture shall interview to determine the precise location

of capture (including latitude/longitude), sex, size, estimated age of the animal, and its condition at the time of capture.

[Note 9] Tools to carry in sampling on the site

As for the tools to carry in sampling on the site in order to investigate wild boars, refer to “Guide for Control measures for Capturing Wild Boars as a Countermeasure for CSF/ASF,” (published by the Ministry of the Environment/MAFF in December 2019. hereinafter referred to as “the Guide”).

[Note 10] Samples and test methods used in CSF for wild boars

As a general rule, blood serum from captured boars and serum (given that blood can be collected), tonsils, spleens or kidneys from dead boars shall be tested. Additionally, if possible, blood serum shall be tested in ELISA. Meanwhile, the tests shall be performed along “Diagnosis Manual of CSF” in Attachment 1, with ensuring cross-contamination prevention measures in the laboratory.

Additionally, since it is impossible to judge with restriction enzyme treatments in real-time RT-PCR tests, samples from the first case of wild boars shall be inspected with an RT-PCR test and the determination test conducted in the National Institute of Animal Health (hereinafter referred to as “NIAH”) of the National Agriculture and Food Research Organization. However, even in cases where results of real-time RT-PCR are negative, if the circumstance of death or observed dissection strongly suggests CSF, PCR tests shall be performed after consultation with the Animal Health Division of the Food Safety and Consumer Affairs Bureau (hereinafter referred to as “the Animal Health Division”).

5 Reporting survey results

A competent prefectural livestock department/unit shall report the survey result from 1 to 4 to the Animal Health Division every year. If, however, the infection of CSFV or ASFV is suspected by the positive result at the survey, they shall report to the Animal Health Division each time.

6 Matters to be observed by investigators, conducting investigations from 1 to 4

- (1) Those conducting investigations from 1 to 3 shall comply with the following matters:
 - (i) When leaving the farm, they shall disinfect themselves, their clothes, footwear, goggles and other belongings as well as the vehicles used.
 - (ii) After arriving home, they shall take a bath and wash themselves thoroughly.
 - (iii) In the case where any abnormality has been confirmed from the clinical examination that the investigators conducted on the farm, the investigators shall not

enter other farms until the results of genetic testing in V-1 have been made clear.

(2) Those who conducted the investigation in 4 shall comply with the following:

- (i) When sampling from wild boars, they shall wear protective clothes as a general rule and be sufficiently careful to avoid spreading contamination elsewhere.
- (ii) After leaving the mountains, used shoes shall be washed and disinfected, and attached soils shall not be brought out.
- (iii) After arriving home, they shall take a bath and wash themselves thoroughly.

[Note 11] Matters on guidance for people involved in surveys of wild boars

If people who capture wild boars bring them directly to the LHSC, the prefectures shall guide them to take measures to avoid leakage of contaminated substances from the vehicle and to thoroughly disinfect capture sites according to the Guide, in consideration of the animals as possible carriers of pathogens.

III-2 Preventive vaccination

1 Basic framework of preventive vaccination

- (1) The CSF vaccination can prevent the appearance of symptoms when properly conducted, but unplanned and unregulated vaccination may disrupt early detection and cause negative effect on prevention of virus spread or confirmation of free status since it may mask affected animals.

Therefore, the use of vaccine requires careful judgment. Japan's basic control measures against CSF is early detection and prompt stamping-out of affected or suspected affected animals and preventive vaccination will not be conducted in principle.

- (2) When MAFF finds it difficult to prevent infection among domestic pigs by thorough biosecurity alone such as continuous outbreaks of CSF among wild boars, MAFF shall approve a preventive vaccination order by a prefectural governor (hereinafter referred to as "vaccination order") pursuant to Article 6 of the Act.
- (3) In addition to vaccination by prefectural animal health inspectors based on the vaccination order in (2), the prefectural governor can order the following persons to conduct vaccination.
 - (i) Veterinarians who are approved by the prefectural governor to meet requirements regarding the timeliness and adequacy (including the member organization to which the veterinarian belongs; hereinafter referred to as "approved veterinarians").
 - (ii) Biosecurity managers who are registered by the prefectural governor because they meet requirements regarding the timeliness and adequacy (hereinafter referred to as "registered biosecurity managers") under the instruction and supervision of prefectural animal health inspectors or approved veterinarians in farms which are approved by the prefectural governor to meet requirements regarding the compliance with the Biosecurity Standards, vaccine control system, etc. (hereinafter referred to as "approved farms")
- (4) If an approved veterinarian no longer meets the requirements in (3)-(i), the prefectural governor shall revoke the approved status of the said veterinarian. For the farm which is to be vaccinated by the said veterinarian, the prefectural governor shall order prefectural animal health inspectors to conduct vaccination based on the vaccination order in (2) or order other approved veterinarians to do the same.
- (5) If an approved farm or a registered biosecurity manager no longer meets the requirements in (3)-(ii), the prefectural governor shall revoke the approved/registered status of the said farm and/or biosecurity manager. If the approved status of the said farm is revoked, or if it becomes difficult to conduct vaccination only by registered biosecurity managers of the said farm, the prefectural governor shall order prefectural animal health inspectors to conduct vaccination based on the vaccination order in (2) or order approved veterinarians to do the same.
- (6) The MAFF and prefectures shall provide correct and proper information on the safety

of vaccinated domestic pigs as well as providing proper instruction on in appropriate labeling.

[Note 12] Requirements for approved veterinarians

Prefectural governors can approve veterinarians (including the member organization to which the veterinarian belongs) that meet the following requirements as “approved veterinarians” (referring to approved veterinarians provided in III-2-1-(3)-(i) of the Guidelines, hereinafter the same shall apply). After the approval, the certificate is issued by reference to the Appended Form 1. (Items of Appended Form 1 shall be added or removed as necessary when issuing the certificate.)

1 Timeliness

- (1) They are proven to be capable of vaccination on farms at least as timely as prefectural animal health inspectors such as visiting farms on a regular basis.
- (2) They are proven to be capable of taking timely action based on Note 14 to ensure the appropriate frequency of vaccination on the farm when a CSF vaccination voucher is issued according to the Appended Form 2.

2 Adequacy

- (1) They have demonstrated the knowledge required for vaccination through participation in prefectural seminars.
- (2) They have established communications with LHSCs.
- (3) They are proven to be capable of taking timely action based on Note 14 to ensure adequate vaccination on the farm and providing adequate instruction on biosecurity when a CSF vaccination voucher is issued according to Appended Form 2.

[Note 13] Requirements for registered biosecurity managers and approved farms

1. Requirements for registered biosecurity managers

Prefectural governors can register biosecurity managers (referring to biosecurity managers provided in Article 12-3-2(1) of the Act on Domestic Animal Infectious Diseases Control (Act No. 166 of 1951; hereinafter referred to as the “Act”), hereinafter the same shall apply) that meet the following requirements by completing the training program implemented by the prefectures, etc. as “registered biosecurity managers” (referring to registered biosecurity managers provided in III-2-1-(3)-(ii) of the Guidelines, hereinafter the same shall apply). In order to be registered, biosecurity managers shall take and complete the training program. This training program shall be implemented based on Attachment 2 “Outline of the Training Program for CSF Vaccination by Registered Biosecurity Managers”.

(1) Timeliness

They are proven to be capable of vaccination at least as timely as prefectural animal health inspectors and approved veterinarians (hereinafter referred to as “prefectural

animal health inspectors, etc.” up to Note 33).

(2) Adequacy

- (i) They are proven to acquire and maintain the knowledge and techniques required for CSF vaccination.
- (ii) They have established communications with LHSCs as well as prefectural animal health inspectors or approved veterinarians and are capable of following their instructions and guidance.

2. Requirements for approved farms

Prefectural governors can approve farms that meet the following requirements as “approved farms” (referring to approved farms provided in III-2-1-(3)-(ii) of the Guidelines, hereinafter the same shall apply). The farms are notified upon approval.

(1) Compliance with the Biosecurity Standards

The farms comply with the Biosecurity Standards, have established communications with LHSCs as well as prefectural animal health inspectors or approved veterinarians, and are capable of following their instructions and guidance.

(2) Vaccination control system

The farms are proven to prepare the operating procedure as in 3 in relation to timely and adequate CSF vaccination and strict control in III-2-2-(5) of the Guidelines, and to establish a system that complies with the requirements to be satisfied by approved farms and registered biosecurity managers in III-2 and Notes 13 through 33 (excluding Notes 15, 17, 20 and 21) of the Guidelines.

3. Preparation and proper implementation of the operating procedure

Farms to be approved shall prepare and be equipped with the operating procedure that includes the following items by reference to III-2 and Notes 13 through 33 (excluding Notes 15, 17, 20 and 21) of the Guidelines. Registered biosecurity managers shall work according to the operating procedure.

- (1) Items related to participation of registered biosecurity managers in the training
- (2) Items related to the procedure to prepare and submit the vaccination plan
- (3) Items related to the detailed procedure to store and use vaccines
- (4) Items related to the procedure to prepare and record a vaccinated pig ledger and report the vaccination performance
- (5) Items related to the detailed steps and procedure to control the amount of vaccine used
- (6) Other necessary items

[Note 14] Instruction and supervision of prefectural animal health inspectors or approved veterinarians for registered biosecurity managers

- 1 When prefectural animal health inspectors or approved veterinarians ask registered

biosecurity managers to conduct vaccination, they shall issue a CSF vaccination voucher according to the Appended Form 2 after examination. In addition, approved veterinarians shall submit a copy of the voucher to the prefecture, and provide adequate instruction on biosecurity at the farm to which the CSF vaccination voucher has been issued.

2 Also, when prefectural animal health inspectors or approved veterinarians visit a farm for examination, they shall supervise registered biosecurity managers to ensure adequate implementation of vaccination according to a CSF vaccination voucher, and confirm the status of observance of the requirements related to the vaccination control system of approved farms. In addition, approved veterinarians shall notify the prefecture when registered biosecurity managers fail to follow their instruction or approved farms fail to observe the requirements. When prefectural governors revoke the approval of approved farms or the registration of registered biosecurity managers, they shall refer to Note 19.

2 Vaccination area and vaccination program

(1) Establishment of vaccination-recommended areas

MAFF sets areas at high risk of domestic pigs being infected from wild boars infected with CSFV (hereinafter referred to as “affected boars”) as vaccination-recommended area in light of the opinions of such experts as the commissioner of the subcommittee considering (i) the CSF infectious status of wild boars and (ii) environmental factors (inhabiting situation of wild boars, number of surrounding farms, rearing density of domestic pigs and geographical characteristics such as mountains or rivers).

[Note 15] Establishment of vaccination-recommended areas

MAFF shall notify related prefectures if MAFF sets vaccination-recommended area provided in III-2-2-(1) of the Guidelines. Besides, the same shall apply when MAFF reviews vaccination-recommended area according to III-2-3-(1) of the Guidelines.

(2) Establishment of vaccination program in prefectures

Prefectures, where any vaccination-recommended area is set, may establish a vaccination program containing the following items and receive confirmation from MAFF, when deemed that it is difficult to prevent domestic pigs from infecting to CSF from affected boars even if the prefectures strive to achieve thorough biosecurity among farms within the prefecture.

(i) Designated area for vaccination (the area where the vaccination order is performed and the area where the vaccination is given by approved veterinarians and/or

- registered biosecurity manager) and approach to defining the vaccination areas.
- (ii) Schedule for initiating and completing the first-round vaccination
 - (iii) Estimation of the number of domestic pigs to be vaccinated and the amount of vaccine necessary
 - (iv) Procedures for vaccinations at farms in vaccination areas (including allocation of prefectural animal health inspectors and utilization of approved veterinarians and /or registered biosecurity manager)
 - (v) Marking procedure for vaccinated pigs
 - (vi) Slaughterhouses to which vaccinated domestic pigs are shipped
 - (vii) Information delivery on vaccination
 - (viii) Enforcement of rules in vaccination area
 - (ix) Other measures for vaccination

[Note 16] Establishment of vaccination program in prefectures

Prefectures prepare vaccination programs in accordance with Appended Form 2-1 and 3-2 based on the following. In addition, this program should be updated every half a year at least.

1 Designated areas for vaccination and approach to defining the vaccination areas

A designated areas shall be defined not to mixed vaccination and non-vaccination areas in a small region. When designating parts of the prefecture as such area, its border shall be clearly defined by administrative borders, road, rivers, railways or other landmarks, avoiding separating areas with dense pig population.

2 Schedule for initiating and completing the first-round vaccination

The schedule for completing the first-round vaccination is the scheduled timing when the 1st vaccination is completed in all farms in the vaccination area in the prefecture.

3 Estimation of the number of domestic pigs to be vaccinated and the amount of vaccine necessary

The number of domestic pigs to be vaccinated and the quantity of vaccine required shall be estimated monthly from the start of the vaccination program to the end of the year in the initial year of the program and from beginnings to the ends of subsequent years.

4 Procedures for vaccinations in farms in vaccination areas (including allocation of prefectural animal health inspectors and utilization of approved veterinarians and/or registered biosecurity manager)

A vaccination plan shall be constructed with a concrete schedule for each farm, and vaccinations of newborn domestic pigs shall be systematically implemented in line

with administration, dosage, and other references. The number of dedicated prefectural animal health inspectors shall be stated in the plan with clear classification between their own inspectors or inspectors dispatched from other prefectures. The number of approved veterinarians shall be indicated based upon the number of individuals or member organizations to which they belong.

Additionally, the plan shall include the name of individual approved veterinarians or organizational names, the farms, number of animals and the amount of vaccine necessary for each approved veterinarian. It also shall include the total number of registered biosecurity manager and the number of approved farm.

5 Marking procedure for vaccinated pigs

Vaccinated domestic pigs can be identified within the farm by ledger. But, based on Article 7 of the Act and Article 13 of the Regulations for Enforcement of Act on Domestic Animal Infectious Diseases Control (Ordinance of the Ministry of Agriculture, Forestry, and Fisheries No. 35 of 1951, hereinafter referred to as “the Regulation”), if they are moved from the farm, the letter V shall be branded on the animals’ backs. Additionally, if any domestic pig carrying this mark is identified outside the vaccination area, it must be immediately reported to a LHSC. The service center shall then confirm the detailed histories of the domestic pigs, monitor them as subjects regarded as though confirmed positive in the antibody prevalence surveys in III-1-2 of the Guidelines.

6 Slaughterhouses to which vaccinated domestic pigs are shipped

In defining vaccination areas, prefectures shall confirm the number of domestic pigs and their destination where those domestic pigs are shipped (farms or slaughterhouses) in advance. If it includes any slaughterhouse at un-vaccination area in other prefecture, the prefecture shipping those vaccinated pigs shall consult with other prefectures accepting them for confirmation of cross-contamination prevention measures to be taken in the slaughterhouse.

7 Information delivery on vaccination

Prefectures shall deliver information regarding vaccination depending on their circumstances. Specific methods for delivery shall be indicated in the program, such as explanatory meetings for producer and farmer groups, their websites, pamphlets or their public relations magazines. Correct usage and the performance of vaccines as well as measures to be taken after vaccination shall be clearly delivered to those producers or veterinarians. Additionally, knowledge and techniques of approved veterinarians and registered biosecurity manager on vaccination protocols (including technical and clerical matters) shall be learned and improved through seminars or other methods, which should be indicated in the plan.

8 Enforcement of rules in vaccination area

Rules that prefectural animal health inspectors as well as registered biosecurity manager shall confirm before vaccination or in shipment of domestic pig shall be indicated in the program. Additional rules shall be stated; In case approved veterinarian falls to vaccinate properly or manage vaccine strictly, prefectural animal health inspectors shall conduct vaccination as per the vaccination order based on Article 6 of the act. ; In case registered biosecurity manager falls to vaccinate properly or manage vaccine strictly, prefectural animal health inspectors or approved veterinarians shall conduct vaccination as per the vaccination order based on Article 6 of the act

9 Other measures for vaccination

The program should include other necessary measures for vaccination, such as confirmation of immunization for vaccinated pigs specified in III-2-6-(1) of the Guidelines, or periodically report to the Animal Health Division regarding the amount of used vaccines and the number of vaccinated farms every two months.

(3) Confirmation of the vaccination program

MAFF shall confirm the vaccination program which enables vaccination in the prefecture properly conducted from the perspective of domestic animal quarantine in light of the opinions of experts such as the commissioner of the subcommittee.

(4) Designation of vaccination area by the prefectural governor

(i) When prefectural governors have the vaccination program confirmed by MAFF according to (3), they can define the area to execute the vaccination order and the area to be vaccinated by approved veterinarians and/or registered biosecurity managers based on Article 5-2 applied mutatis mutandis to Article 6-2 of the Act.

(ii) When defining the vaccination area according to (i), based on the situation of (1)(i) and (ii) in the area(s) of the prefecture, the prefectural governor must set a range considered appropriate for vaccination integrally and set the contact face between vaccinated and non-vaccinated farms to be minimized.

(5) Permission by a prefectural governor under Article 50 of the Act

When prefectural governors order prefectural animal health inspectors, approved veterinarians, or registered biosecurity managers to administer vaccinations, they shall approve use of the CSF vaccine based on Article 50 of the Act.

Additionally, when permitting approved veterinarians or registered biosecurity managers to vaccinate based on Article 50 of the Act, prefectural governors shall impose requirements about usage and reporting. Prefectures shall confirm that the said requirements are observed at approved farms.

[Note 17] Requirements for permitting approved veterinarians based on the Article 50 of the Act

- 1 When prefectural governors judge that approved veterinarians meet following requirements, prefectural governors can allow approved veterinarians to administer vaccinations based on Article 50 of the Act:
 - (1) They shall not vaccinate and provide vaccines to any farm other than the listed on the application.
 - (2) Estimated period of use shall be observed.
 - (3) Vaccinated pigs shall be marked after vaccination, and when shipping those domestic pigs from the farm, indicators shall be posted as per the example in Article 7 of the Act.
 - (4) Charges for the vaccination-related work shall be explained to the farm.
 - (5) Vaccination progress shall be reported to prefectural governors monthly.

- 2 Prefectural governors shall request that approved veterinarians report on vaccination progress as necessary, based on Article 52 of the Act.

[Note 18] Requirements for permitting registered biosecurity managers to conduct vaccination who belong to approved farms based on Article 50 of the Act

1. When prefectural governors judge that registered biosecurity managers who belong to approved farms meet the following requirements, prefectural governors can allow them to administer vaccinations based on Article 50 of the Act:
 - (1) Only registered biosecurity managers conduct vaccination at the approved farm (except for prefectural animal health inspectors, etc.).
 - (2) Registered biosecurity managers shall observe the following items.
 - (i) Follow the instruction of prefectural animal health inspectors or approved veterinarians based on Note 14 to conduct vaccination.
 - (ii) Follow the operating procedure.
 - (iii) Do not conduct vaccination anywhere other than the farms listed on the application.
 - (iv) Do not provide vaccines to others.
 - (v) Observe the vaccination period specified in the CSF vaccination voucher.
 - (vi) Mark vaccinated pigs after vaccination and post indicators as per the example in Article 7 of the Act when shipping those domestic pigs from the farm.
 - (3) Vaccines shall be managed properly based on Note 25.
 - (4) Vaccination progress shall be reported to prefectural governors monthly.

2 In order to confirm the status of observance of the requirements in 1 at approved farms, prefectures shall regularly conduct the following in principle. Prefectural governors shall request that approved farms report on vaccination progress as necessary, based on Article 52 of the Act.

- (1) Check the vaccination plan, vaccination performance and amount of used vaccine against each other monthly.
- (2) Conduct on-site inspection at least once a year.
- (3) Conduct immunization status confirmation surveillance at least once a year.

[Note 19] Response to the failure to meet the requirements for permitting the use of vaccines based on Article 50 of the Act

1. When prefectural governors confirm that approved veterinarians do not observe the requirements specified in Note 17-1, the permission of their use of vaccines shall be promptly revoked, and their approved status shall also be revoked.

2. When prefectural governors confirm that approved farms or registered biosecurity managers do not observe the requirements specified in Note 18-1, the permission of their use of vaccines shall be promptly revoked, and their registered/approved status shall also be revoked.

3. Prefectures shall respond to the failure strictly, considering that it could be subject to penalties if it is recognized as a violation of Article 50 of the Act or any other relevant laws and regulations. If the level of non-observance of the requirements is minor, the prefecture shall instruct the farm to observe the requirements and notify them of the details of the instruction in writing. If the farm does not follow the instruction, the permission of their use and their registered/approved status shall be revoked, and the farm shall not be permitted for use or given the registered/approved status again for a period of one year.

4. When prefectures revoke the permission of use and/or the registered/approved status, they shall report to the Animal Health Division each time.

3 Reviews of vaccination-recommended areas and reviews of defined vaccination areas by prefectures

(1) Reviews of vaccination-recommended areas

The MAFF shall review the range of vaccination-recommended areas periodically in response to CSF infectious status or the confirmation status of affected wild boars in Japan in light of the opinions of experts such as the commissioner of the subcommittee.

(2) Review of vaccination areas by prefectures

Responding to the review of the vaccination-recommended area in (1), prefectures shall also review their designation of the vaccination area and seek re-confirmation by MAFF based on 2-(1) if they amend the area.

[Note 20] Review of vaccination-recommended areas and reviews of vaccination areas by prefectures

Reviews of vaccination areas by prefectures are performed if the vaccination-recommended areas are limited to part of the prefecture or if the prefecture is excluded from the vaccination-recommended area by MAFF.

4 Subjected animals and the first vaccination method

All domestic pigs in a vaccination area become the subject of vaccination. Prefectures, however, can remove domestic pigs confirmed by MAFF as those subject to advanced isolation or monitoring environment. In addition, the vaccination is conducted according to its approved administration, dosage, and other references. In the first-round, all domestic pigs other than suckling pigs in the lactation period are vaccinated as a general rule.

[Note 21] Requirements for domestic pigs under advanced isolation or monitored

Prefectures can exclude domestic pigs in the facilities located in the vaccinated area from the group of domestic pigs to be vaccinated under advanced isolation or monitored if facilities satisfy the following conditions.

Additionally, it shall be confirmed that the facility produces domestic pigs exclusively for testing and research and that the animals do not move anywhere out of the facility except to testing or research institutes.

1 Requirements for facility and biosecurity

Prefectures shall visit the facility in principle, and check the documents and photographs to confirm the status of the facility and its biosecurity, in cooperation with Animal Health Division

(1) Major requirements to the facility

- (i) Facilities must be closed, equipped with air conditioning or ventilation systems with filter.
- (ii) Animal holding areas must have positive pressure to the circumstance.
- (iii) Pass boxes used for bringing materials and equipment into the area must be installed.
- (iv) Facilities must be structured and organized so that there is no outside contact when moving around within the breeding areas and between premises. Furthermore, thorough measures must be taken to prevent the invasion of

pathogens by humans, material, or wild animals

- (v) Equipment to disinfect vehicles must be installed at the entrance of the facility.
- (vi) Facilities must be equipped with shower rooms.
- (vii) Facilities must be equipped with facility to process animal carcasses (including incineration and storage facilities.)
- (viii) Facilities must be equipped with an animal waste treatment facility (including a compost shed)
- (ix) Materials, heavy machines must be equipped exclusively for at the facility.
- (x) Facilities must have segregation facilities for introduced domestic pigs (except for cases in which there are no introductions).
- (xi) Facilities must be periodically inspected and repaired as necessary so that biosecurity of the premises can be maintained (these operations must be recorded and stored).

(2) Major requirement for biosecurity

- (i) Domestic pigs are bred exclusively for the testing and research.
- (ii) Each action such as entering/exciting the facility or breeding areas, and importing materials must have its own standard operating procedure (SOP) prepared. —Employees must appropriately observe or be instructed to observe them. These operations must be recorded.
- (iii) Those entering the facility must wear dedicated outerwear, boots
- (iv) No one except the person concerned shall enter the biosecurity area.
- (v) The “shower-in and shower-out” rule in accessing the facility must be strictly observed.
- (vi) Those engaged in animal breeding (including managers) must not enter any other facility where other domestic pigs are kept.
- (vii) In supplying feedstuff, employees of the feedstuff suppliers must not enter the biosecurity area.
- (viii) All feedstuffs must be confirmed sterilized or free from pathogens.
- (ix) Water supplied to domestic pigs must be confirmed disinfected or free from pathogens.
- (x) Animal carcasses must be appropriately processed in dedicated facilities and prevented from contact with animals in the facility or wild animals.
- (xi) Animal feces and urine must be appropriately processed in dedicated facilities and prevented from contact with wild animals.
- (xii) Domestic pigs must not be introduced from vaccinated areas (excluding domestic pigs reared in these facilities under advanced isolation and monitoring environment).

2 Requirement for the periodical inspection

Domestic pigs must be periodically inspected to identify the CSF infectious status,

and the results must be recorded and stored.

(1) Inspection method

Clinical tests, gene detection tests, and ELISAs must be implemented every 3 months.

(2) Samples and sample number

The sample shall be blood serum.

As the number of samples necessary to detect 10% infection with 95% confidence level, it shall be at least 30 (among them, 5 or more are randomly sampled from each pen).

3 Confirmation items

It shall be confirmed that strict contamination prevention measures are taken in the destination facilities as follows.

- (1) The destination facility rears domestic pigs exclusively for testing and research, and not for any other purpose.
- (2) In shipping domestic pigs into the destination facility, contamination prevention measures such as vehicle disinfection are taken.
- (3) Pigs used in the destination facility are finally processed so that viruses are eliminated completely (i.e., by incineration).
- (4) After-incineration residue is appropriately processed as industrial waste so that it may not enter into feedstuff for domestic pigs

[Note 22] Administration and dosage of CSF vaccine

CSF vaccine shall be used according to defined administration, dosage, and other references.

Additionally, domestic pigs (i.e., sows and boars including their candidate) that are kept for six months or more, shall be given booster vaccinations after six months of their initial vaccination. Thereafter, they shall be vaccinated yearly. It is recommended that vaccinations should be administered no more than four times.

Suckling pigs in the lactation period that have not been vaccinated due to concern about influence on the maternal antibody shall avoid contact with vaccinated pigs other than their mother pigs and receive the vaccination next time without fail.

[Note 23] Exception of the first vaccination

1 Exclusion of vaccination

Following domestic pigs can be excluded from vaccination lists for the first-round vaccination:

- (1) Domestic pigs that are scheduled to be shipped to slaughterhouses within 20 days

of vaccination, based on the guidance from the Ministry of Health, Labour and Welfare (MHLW) and the Slaughterhouse Act (Enforcement of the Ordinance Partially Amending the Regulations for Enforcement of the Slaughterhouse Act (Environment and Milk No. 52, Notification by Director of the Milk and Meat Hygiene Division, Environmental Hygiene Bureau, MHLW, Dated July 20, 1972) based on Slaughterhouse Act (Act No. 114 of 1953).

- (2) Suckling pigs in the lactation period (Vaccinations can be administered with consultation with the Animal Health Division.)

2 Measures at the farm when there are domestic pigs excluded from the first vaccination

When there are domestic pigs excluded from the first vaccination, the measures such as monitoring must be applied until shipment of all those domestic pigs in (1) above or vaccination for domestic pigs in (2) above completed, in the same way as though positive cases are confirmed among wild boars outside the vaccinated area.

5 Enforcement of rules in the vaccination area

- (1) Prior notification of number of domestic pigs

Farms shall notify to the prefecture information including numbers of reared domestic pig, annual shipment plans, and whether approved veterinarians and registered biosecurity managers are utilized before vaccination. In addition, farms shall notify the prefecture of any changes in reported information.

- (2) Notes during vaccination

Prefectural animal health inspectors and approved veterinarians and registered biosecurity managers quickly and effectively administer vaccinations and spray mark to vaccinated animals, to avoid oversights. Additionally, vaccinated pigs moved from the vaccinated farm to other farms or slaughterhouses shall be posted with indicators pursuant to Article 7 of the Act. For domestic pigs vaccinated by approved veterinarians or registered biosecurity managers.

[Note 24] Confirmation of domestic pigs' health at the time of vaccination

- 1 An prefectural animal health inspector and registered biosecurity managers shall confirm the health of domestic pigs to be vaccinated at the time of vaccination and then conduct vaccination.
- 2 He/she shall instruct the vaccinated farm to take strict measures to disinfect livestock-related vehicles entering the farm, such as livestock carriers, feed carriers, carcass collection vehicles and compost carriers.

- (3) Management of vaccines

Prefectures shall properly store vaccines and manage and record their quantity.

[Note 25] Management of vaccines

1. When storing vaccines, the following items shall be observed.
 - (1) Vaccines shall be refrigerated properly according to the attached documents.
 - (2) Vaccines shall not be replaced in other containers for storage.
 - (3) Vaccines shall not be stored in excess of the necessary amount.
2. Prefectural animal health inspectors shall collect the materials used for vaccination, including injection needles, syringes, and containers of the vaccine, and bring them back to the LHSC for appropriate disposal by disinfection or incineration. Unsealed vaccines shall be disposed of appropriately in the same way.
3. Approved veterinarians shall accurately grasp and record quantities of used vaccines, and report them to prefectures regularly. They shall transport the materials and containers used for vaccination to appropriate areas for disposal by disinfection or incineration. Prefectures shall grasp the amount of vaccines used by approved veterinarians through confirmation of used vaccines and receipt of their reports.
4. Registered biosecurity managers shall accurately ascertain and record quantities of used vaccines based on the operating procedure and report them to prefectures regularly. They shall transport the materials used for vaccination to appropriate areas for disposal by disinfection or incineration. The containers for used vaccines shall be returned to prefectures after being disinfected. Prefectures shall ascertain the amount of vaccines used by approved farms through confirmation of used vaccines and receipt of their reports.

(4) Pig management

The vaccinated farm shall prepare a vaccinated pig ledger pursuant to the notice in (1), record all details of the domestic pigs to be vaccinated such as their date of birth, production farm, introduction date, shipment date, shipment destination and vaccination history of CSF vaccine.

[Note 26] Handling when domestic pigs are introduced

If a vaccinated farm introduces domestic pigs from a non-vaccinated farm, domestic pigs shall be vaccinated immediately after introduction and whenever possible, the domestic pigs shall be separated from the others to monitor their health.

(5) Movement management

The vaccinated farm shall control the following items pursuant to the provision in (6) due to the potential of CSFV spread by transferring those items from the vaccinated farm:

- (i) Live domestic pigs;
 - (ii) Semen and embryos sampled at the farm, excluding those collected before vaccination and separately managed so as not to be cross-contaminated with those derived from vaccinated pigs;
 - (iii) Carcasses of domestic pigs;
 - (iv) Manure of domestic pigs; and
 - (v) Bedding materials, feedstuff and livestock feeding equipment.
- (6) Movement management method
- (i) As a general rule, the movement of live domestic pigs (excluding those shipped to a slaughterhouse), semen, embryo, carcasses of domestic pigs, manure of domestic pigs, bedding materials, feedstuff and livestock feeding equipment shall be limited to farms in the vaccination area.

[Note 27] Movement of domestic pigs in the vaccination area

If a farm moves domestic pigs to another farm in the vaccination area, it shall confirm the clinical signs of domestic pigs to be shipped on the previous date of the shipment. The destination farm shall separate these domestic pigs from others to observe their health when possible.

- (ii) Movement of carcasses or, manure of domestic pigs, bedding materials, feedstuff and livestock feeding equipment to relevant facilities in the area outside vaccination area for the purpose of incinerating, burying, rendering, composting or disinfection is limited to the case where the following requirements are satisfied.:
 - a. The domestic pigs reared in the farm have no clinical abnormality.
 - b. The prefecture where the facilities are located have confirmed the incineration facilities and other movement destinations in the area outside the vaccination area have taken measures to prevent the CSFV from spreading.
 - c. The prefecture where the vaccinated farm is located have confirmed that during the movement, measures are taken to prevent the CSFV from spreading including vehicle disinfection and tight loading of these materials on vehicles.

[Note 28] Movement of carcasses or manure of domestic pigs, bedding materials, feedstuff, livestock feeding equipment to the area outside the vaccination area

1 Attention shall be paid to the following matters in moving carcasses or manure of domestic pigs (including placentas. Hereinafter the same shall apply), bedding materials, feedstuff and livestock feeding equipment to the relevant facilities in the area outside vaccination area for the purpose of incinerating, burying, rendering, composting, or disinfection. The prefecture where the vaccinated farm is located shall permit movement after confirming these measures are taken. In addition, it shall

regularly reconfirm that such measures are taken in the farm.

- (1) Movement of carcasses or manure of domestic pigs, bedding materials, feedstuff and livestock feeding equipment for the purpose of incinerating, burying, rendering, composting or disinfection
 - (i) Carcasses of domestic pigs can be moved if there is no doubt of CSF and if any domestic pig showing symptoms of raising suspicions of CSF is found, a notification shall be immediately made to the prefecture.
 - (ii) The farm shall confirm the absence of abnormalities in domestic pigs at the farm before movement.
 - (iii) As a general rule, a closed vehicle or vessel shall be used. When these are not available, measures such as covering the floor and lateral sides with sheets and further covering the upper side with sheets after loading the transported objects to avoid any leakage of transported objects, shall be taken.
 - (iv) The overall surface of the vehicle shall be disinfected before and after loading.
 - (v) As a general rule, passage on any roads in the vicinity of other farms shall be avoided.
 - (vi) The vehicle and materials shall be immediately disinfected after transportation.
 - (vii) The manifest shall be securely kept.
 - (2) The following measures shall be taken at the relevant facilities in the area outside the vaccination area, which accept those items:
 - (i) Set the carry-in traffic line of items to be processed and the carry-out traffic line of processed product lest they should intersect and if this is difficult, vehicles shall be thoroughly disinfected.
 - (ii) Measures such as establishing a space for items to be processed on the other side of the space for processed products.
- 2 Besides, manure which has been processed by heat at 60°C for 30 minutes or more in the compost maturing process, can be taken out from the farm to the area outside the vaccination area provided preventive measures against cross-contamination are applied at the farm.

- (iii) The shipment of live domestic pigs to slaughterhouses is limited to the movement to those in the vaccination area as a general rule.
- (iv) The shipment of live domestic pigs to a slaughterhouse in a non-vaccination area is limited to cases when a prefecture in which the slaughterhouse is located confirms that cross-contamination preventive measures have been implemented. In this case, the prefecture in which the vaccinated farm is located shall request the prefecture in which the slaughterhouse is located confirms implementation of cross-contamination preventive measures.

6 Monitoring vaccinated farms

(1) Confirm the immunization status of the vaccinated farm

Prefectures shall conduct necessary tests in the vaccinated farms to check the status of immunization by vaccination and invasion of the field virus.

[Note 29] Immunization status confirmation surveillance at vaccinated farms

1 Purpose of the surveillance and implementation system

Prefectures shall implement the antibody tests (generally ELISA) on the vaccinated pigs, with the first one on about the 40th day or later from the vaccination(90th day or later in case appropriate time to vaccinate is determined more precisely) and subsequently every half year, in order to review the appropriate vaccination timing (month/age) of fattening domestic pigs as well as to confirm the effectiveness of the vaccination. In other cases where prefectures find it necessary to prevent the occurrence, additional tests shall be done.

Additionally, aiming to confirm invasion of field viruses, gene detection tests shall be performed in case where any abnormal symptoms indicating CSF are confirmed in the farm.

2 Scope and test method

The surveillance basically targets sows and fattening pigs at vaccinated farms rearing 6 domestic pigs or more. For the surveillance among fattening domestic pigs, farms rearing no sows are excluded from the scope.

Prefectural animal health inspectors shall implement the test in accordance with (1)-(3) below for each round, referencing the number of vaccinated farms within the prefecture. They shall confirm domestic pigs' health condition by clinical test and sample blood and blood serum from randomly extracted domestic pigs, which shall be 30 domestic pigs or more (in principle, more than 5 domestic pigs from each premise; the same applies in this note), at the targeted farms. Prefectures may extract farms and targets considering the number of farms in the prefecture, scale of the farms, immunization statuses etc.

- (1) The first round after vaccination: ELISA assay is conducted in every farm with sows. Additionally, neutralization test is conducted at these sows in selected farms as the numbers in the table below.
- (2) 2nd round: ELISA assay is conducted in every farm targeting fattening domestic pigs produced by sows which received the vaccination for the first round. Additionally, ELISA assay is conducted in selected farms as the number in the table below, targeting domestic pigs which have elapsed at least 40 days after vaccination.
- (3) 3rd and subsequent round: ELISA assay is conducted for sows and fattening pigs respectively in the farm as the numbers in the table below. If the surveillance for sows and fattening pigs is conducted in the same farm, at least 30 domestic pigs for sows

and fattening domestic pigs each shall be sampled.

Population	The number of samples
1-15 farms	All farms
16~20 farms	16 farms
21~40 farms	21 farms
41~100 farms	25 farms
101 farms+	30 farms

3 Additional vaccinations

Responding to the surveillance result, additional vaccination may be executed with the following policy. Considering there are cases where ELIZA test is negative and neutralization test is positive, when antibody positive ratio of ELIZA test is low, neutralization test shall be conducted for the samples with ELIZA test negative. It should be judged as positive when neutralizing antibody value is more than 1. (1)

If the antibody positive ratio of a farm is 80% or higher, they shall be evaluated as a sufficiently immunized group. However, if those ratio in each premise within the farm is observed to be less than 80%, additional vaccination shall be executed generally all domestic pigs in the said premise after consultation with the Animal Health Division.

- (2) If the antibody positive ratio of a farm is observed to be less than 80%, additional vaccination shall be executed all domestic pigs in the farm, or specific group of domestic pigs with low antibody positive ratio which was identified by additional inspection with the Animal Health Division.
- (3) when antibody positive ratio is less than 80% in (1) or (2), considering the distribution of neutralization antibody value of fattening domestic pigs, prefectures may
- (4) When the additional vaccination shown in (1) and (2) is administered among fattening domestic pigs, it shall be administered taking the date of shipment to slaughterhouse into consideration.

4 Report

In implementing the surveillance, prefectures shall report the result to the Animal Health Division via Appended Form 4.

(2) Confirmation in moving domestic pigs at a vaccinated farm

When a vaccinated farm moves domestic pigs, the farm shall confirm the clinical signs of all domestic pigs to be shipped. If any abnormality is observed, the farm shall immediately contact the prefecture for further inspection.

[Note 30] Confirmation in moving vaccinated pigs to slaughterhouse or another farm

- 1 When domestic pigs in a vaccinated farm are shipped to a slaughterhouse or moved to another farm in the vaccination area, veterinarians or farm owners shall confirm the clinical signs, and promptly notify prefectures after measuring their body temperature if they find any abnormality indicating CSF among them. When receiving such notification, the prefecture shall conduct on-site inspection at the farm for clinical tests and body temperature check of the domestic pigs and collect necessary samples for the following tests:
 - (1) Blood test (leucocyte counting); and
 - (2) Gene detection test

2. The following measures shall be taken at the time of movement:
 - (1) The overall surface of the vehicle will be disinfected before and after loading.
 - (2) Measures should be taken to prevent leakage such as body fluid on a cargo bend.
 - (3) Vehicle shall not enter other relevant facilities, including other farms raising domestic pigs
 - (4) As a general rule, passage on any roads in the vicinity of other farms shall be avoided and transportation routes not used by other livestock-related vehicles will be established.
 - (5) The vehicle and materials shall be immediately disinfected after transportation.
 - (6) The transportation process shall be recorded and details kept.

7 Preventive measures against cross-contamination at a slaughterhouse

If a slaughterhouse accepts domestic pigs from both vaccinated and non-vaccinated farms, the prefecture in which the slaughterhouse is located shall confirm the following preventive measures against cross-contamination have been taken, upon request from the prefecture in which the farm to ship vaccinated pigs is located. Without this confirmation, the shipment of domestic pigs from the vaccinated farm shall not be permitted.

The slaughterhouse must not refuse domestic pigs from vaccination area only because it is vaccinated, since virus spread within the slaughterhouses can be prevented if the following measures are properly taken.

- (1) A vehicle disinfection equipment has been installed.
- (2) The facilities receiving live animals shall be clearly distinguished from other areas in facilities.
- (3) The facilities shall be regularly cleaned and disinfected.
- (4) Vehicles shall be thoroughly disinfected when entering and leaving.
- (5) A biosecurity manual is properly prepared and employees shall perform their operation according to the manual.

[Note 31] Preventive measures against cross-contamination at a slaughterhouse

A slaughterhouse accepting domestic pigs from both vaccinated and non-vaccinated farms pursuant to III-2-7 of the Guidelines shall take measures against cross-contamination, paying attention to the following. In addition, the prefecture in which the slaughterhouse is located shall ensure the driver of the vehicle which uses the slaughterhouse and other related parties understand this after confirming measures taken at the slaughterhouse.

In addition, as the vaccination program is updated semiannually or more frequently, prefectures shall confirm the implementation of those measures and keep records thereof. Furthermore, when the prefecture in which the farm shipping vaccinated pigs is located requests confirmation of whether to take those measures at the slaughterhouse, the prefecture in which the slaughterhouse is located shall answer in writing on the time and day based on records and details on the implementation of confirmation

1 Install of disinfection equipment for vehicle

Equipment for disinfection, such as a disinfecting tub where tires can be soaked, disinfection tunnel and a power sprayer, shall be installed at the entrance to a slaughterhouse and in the disinfection points within the slaughterhouse, it shall be confirmed that vehicles are thoroughly disinfected.

2 Distinction of area receiving live animals

The facilities receiving live animals shall be clearly distinguished from other areas of the facilities. The area receiving live animals shall be effectively cleaned and disinfected before and after the carrying-in.

3 Regular cleaning and disinfection

- (1) As a general rule, the traffic line of a vehicle carried in from vaccinated farms shall not intersect with that of vehicles carried in from non-vaccinated farms. Attention shall be paid to the traffic line of workers to avoid the risk of vehicle cross-contamination caused by workers during tasks such as discharge of animals. Besides, when the structure of the facility or other compelling reasons make cross-contamination unavoidable in works such as discharge, vehicles and working places shall be thoroughly disinfected after each work, including the boots and gloves of workers and those measures shall be recorded in the biosecurity manual in 5 below.
- (2) Loads including bedding materials on vehicles carrying in vaccinated pigs shall be properly processed and managed lest they should be the contamination source of other vehicles e.g., through disinfection via mixtures with lime hydrate and distinguishing them from non-vaccinated farms whenever possible. After discharging those loads, entire vehicles, including the cargo bend, shall be washed and disinfected and the disinfection site shall be arbitrarily cleaned and disinfected.

4 Thorough vehicle disinfections in entering and leaving

Not only carry-in vehicles entering and leaving a slaughterhouse from vaccinated farms, but also all vehicles from non-vaccinated farms or shipping meat from the slaughterhouse shall be disinfected upon entering the farm and after working in areas where cross-contamination can occur. In addition, disinfection shall be conducted thoroughly on vehicles entering and leaving slaughterhouses.

5 Preparation and proper implementation of a biosecurity manual

A biosecurity manual shall state the appropriate implementation of measures from 1 to 4 above. A slaughterhouse manager shall confirm and record whether workers operate pursuant to the manual and whether to take prevention measures against cross-contamination.

6 Others

- (1) When a vehicle driver works at a slaughterhouse, he/she shall avoid using boots used at a farm but use dedicated boots in the slaughterhouse. Also, instructions shall be given to wash and disinfect boots immediately after work and not to use them in areas outside the slaughterhouse.
- (2) As the setting of dates or times dedicated for receiving domestic pigs from vaccination areas is effective, such dates or times shall be adjusted whenever possible.

8 Control measures at vaccinated farms

While control measures in case that affected or suspect animals are found at vaccinated farms or that affected wild boars are found in the area around the vaccinated farms shall be basically implemented as per Chapter 3, the necessary measures regarding restriction zones shall be taken according to XI-1 and XX-1, in light of the opinions by experts such as the commissioner of subcommittee.

[Note 32] Designation of restriction zone in case of outbreak of CSF at a vaccination area

If any affected or suspect animals are confirmed in a vaccination area, or if infection of wild boars is confirmed in the vicinity, restriction zones will not be established. If, however, the restriction zone established in XI-1 and XX-1 of the Guidelines includes a non-vaccination area, the non-vaccination area shall be defined so.

9 Completion of vaccination

Prefectures shall promote measures against wild boars and the biosecurity at the farm

to complete vaccination as soon as possible. In addition, prefectures, which are not included in the vaccination-recommended area set by MAFF, shall complete vaccination.

10 Reporting of the vaccination performance

The prefectural governor shall report on the vaccination implementation statuses and its results to MAFF pursuant to Article 12-2 of the Act.

[Note 33] Reporting of the vaccination performance

Prefectural governors shall report vaccination implementation statuses to MAFF pursuant to Article 12-2 of the Act and summarize the following details every other month to include a summary report to the Animal Health Division by the 15th of every odd-numbered month. via Appended Form 5. The Animal Health Division may request additional reports as necessary.

1 Quantity of vaccine in the prefecture

Quantity of vaccine purchased by the prefectures, quantity used by prefectural animal health inspectors and registered biosecurity managers, vaccinated quantity, and disposed quantity.

2 The number of vaccinated farms

The number of farms or animals vaccinated by animal health inspectors and registered biosecurity managers, respectively.

11 Research concerning vaccine

MAFF shall further promote research and studies about vaccine development or its usage

Chapter 3 Measures to prevent the spread

Section 1 Measures for domestic pigs

IV Detection of abnormal pigs and confirmation by inspection

1 Responses for receiving a notice from an pig owner

When a prefecture receives a notice from pig owners, or veterinarians stating that an abnormal pig has been found, it shall report to the Animal Health Division and immediately dispatch a prefectural animal health inspector to the on-site farm.

The prefecture shall also give necessary instructions to persons who gave such notification, including a voluntary ban on moving live domestic animals or carcasses.

[Note 34] Report in receiving a notice of abnormal pig

If the competent prefectural livestock department is notified that domestic pig of which symptoms described in IV-2-(3) (hereinafter referred to as “abnormal pigs”) were identified in clinical tests by the animals’ owners or veterinarians, they shall report to the Animal Health Division via Appended Form 6. In addition to reporting, the confirmed cases shall be reported first and cases yet requiring confirmation shall be reported as soon data become available.

[Note 35] Materials that an AHI shall bring to an affected farm

- 1 Clothing for entering the affected farm: boots, protective clothes, gloves, shoe covers, medical caps, dust masks
- 2 Instruments for clinical tests: thermometer, positioning materials (wire or rope), white cloth (soaked in disinfectant to place equipment in 3 on the cloth), sedative, or flashlight
- 3 Sampling instruments for diagnosis: sampling instruments: dissecting instruments (surgical scissors, scalpel, forceps), alcohol cotton, cold packs cold boxes, sample shipping boxes for diagnosis or vinyl sheets
- 4 Contact and reporting instruments: mobile phones, office supplies, various types of paper, maps, digital cameras or image transceivers
- 5 Tools for disinfection: buckets, brushes or disinfectants (and sprayers)
- 6 Other: packing tape, vinyl tape, oil-based markers, cutters, scissors, colored spray paint, plastic bags, restricted-area sign boards, extra clothes or food

[Note 36] The prefecture provides the following instructions in response to the notifications

1 Reporting by pig owners

- (1) Owners shall refrain from moving any animals, even those other than domestic pigs
- (2) Until the results of the on-site inspection regarding the drainage of the farm are known, or until appropriate disinfection measures are taken, avoid runoff as much as possible, unless it has been properly treated in an activated sludge tank.
- (3) As a general rule, use only one doorway to the farm and allow only authorized people such as farm workers and health protection specialists to enter.
- (4) Prohibit the transport of materials from farms. In addition, before leaving farm grounds, animal owners and farm workers should change clothes and shoes used on the farm and undergo appropriate disinfection.
- (5) Manage products, such as excrement, semen or bedding of abnormal and suspected abnormal pigs so as not to come in contact with other animals.

2 Reporting by a veterinarian

- (1) In principle, the veterinarian is advised to remain on the farm until the arrival of an AHI and provide advice and instructions as specified in 1-(1) through (5) above so that the spread of CSFV can be prevented.
- (2) After the arrival of an AHI, the veterinarian may leave the farm. At this time, he/she must undergo disinfection, and must also disinfect his/her clothing, footwear, goggles, and other personal goods and his/her vehicle, and then immediately return home.
- (3) Immediately after returning home, he/she must wash and disinfect his/her vehicle thoroughly, wash his/her clothes and bathe until sufficiently clean
- (4) The veterinarian may not enter the pig feeding farm concerned until the abnormal pigs are deemed neither infected nor suspect.
- (5) In case of positive CSF test results, he/she shall not enter domestic pig rearing facilities (excluding the farm) for at least seven days after abnormal pig examination or postmortems.

3 Reporting by a livestock market

- (1) The movement of domestic pigs shall be voluntarily banned and as necessary, the information shall be provided to related parties, who enter and exit the livestock market.
- (2) Vehicles related to livestock shall avoid entering the market. Livestock-related vehicles leaving the market shall be thoroughly disinfected and, after that, shall not enter any facility where domestic pigs are reared until the abnormal pigs are diagnosed neither affected nor suspected affected.
- (3) When employees (all people who were in the domestic animal market when an

abnormal pig is reported; the same shall apply in (4) below) move out of the market, their bodies and vehicles shall be properly disinfected

- (4) Employees and those who received the information described in (1) and entered the market grounds on and after the day when the abnormal pigs were delivered (hereinafter referred to as “market visitor(s)”) shall not enter any facility where domestic pigs are reared until the abnormal pigs are deemed neither affected nor suspect.
- (5) Owners of the abnormal pigs should be identified immediately, sufficiently disinfected and instructed to go home straightaway. They should also be directed to follow the instructions in 1-(1) through (5).
- (6) Vehicles used to transport the abnormal pigs and drivers must be identified, thoroughly disinfected, and instructed not to enter any facility where domestic pigs are reared (excluding their own farms and the that shipped the domestic pigs) until abnormal pigs are deemed neither affected nor suspect. The prefecture shall also instruct drivers to avoid return to their own farms.
- (7) Domestic pigs that were moved from the livestock market on and after the day that the abnormal pigs were delivered must be identified and reported.
- (8) If the abnormal pigs turn out to be suffering from CSF, instruct market visitors not to enter facilities rearing domestic pigs (excluding farms having shipped abnormal pigs and farms owned by the market visitors) for at least 7 days from the day when the abnormal pigs were diagnosed affected or suspected affected. Additionally, instruct the market visitors to avoid entering their own farms whenever possible.

4 Reporting by slaughterhouses

- (1) In addition to the cessation of slaughtering the abnormal and other domestic pigs shipped from the same farm, information must be supplied to related parties entering the slaughterhouse as necessary.
- (2) Vehicles used for livestock shall avoid entering the slaughterhouse. When leaving the slaughterhouse, such vehicles shall be thoroughly disinfected thereafter avoid entering any facility where domestic pigs are reared until the abnormal pigs are deemed neither affected nor suspect.
- (3) When employees (i.e., all present in the slaughterhouse when an abnormal pig is reported; the same shall apply in (4) below) must leave the plant, and have their persons and vehicles properly disinfected.
- (4) Employees and those who have received the information described in (1) and entered the slaughterhouse on or after the day that abnormal pigs were delivered (hereinafter referred to as “slaughterhouse visitors”), shall not enter any facility where domestic pigs are reared until the abnormal pigs are diagnosed neither affected nor suspect.
- (5) Owners of abnormal pigs must immediately be identified, sufficiently disinfected, and instructed to go home immediately. They must also be directed to follow

instructions in 1-(1) through (5).

- (6) Vehicles used to transport abnormal pigs and their drivers must be thoroughly disinfected and the drivers instructed not to enter any facility where domestic pigs are reared (excluding their own farms and the farms that shipped the abnormal pigs) until abnormal pigs are deemed neither affected nor suspect. The prefecture shall also instruct drivers to avoid entering their own farms.
- (7) If the abnormal pigs are diagnosed with CSF, slaughterhouse visitors must be instructed not to enter facilities rearing domestic pigs (excluding farms that shipped abnormal pigs and farms owned by the slaughterhouse visitors) for at least seven days after the animals were deemed affected or suspect. Additionally, slaughterhouse visitors must be instructed to avoid entering their own farms whenever possible.

2 Clinical inspections by prefectures

- (1) After arriving at the farm in 1, the prefectural animal health inspector shall leave his/her vehicle outside the biosecurity area of the farm, enter the animal quarters wearing quarantine clothes and thoroughly conduct clinical inspection and measure the body temperatures on abnormal pigs and other domestic pigs reared together. On this occasion, he/she shall record the status of a group of domestic pigs including abnormal pigs with digital cameras.
- (2) The prefectural animal health inspector shall send a report on symptoms and photos taken from the farm or a nearest office to a competent prefectural livestock department by email as soon as the inspection is complete.
- (3) When the competent prefectural livestock department confirms any of the following symptoms (hereinafter referred to as “the specific symptoms”) as a result of the clinical inspection by the prefectural animal health inspector, it shall immediately report to the Animal Health Division with photos and symptoms of the domestic pigs and information on other domestic pigs in this farm
 - (i) There are purple spots on auricle, hypogastrium and limbs.
 - (ii) The number of domestic pigs that show any of the following symptoms is increasing in the same pig stall (if a single domestic pig is reared in a stall, in the same premise) during a certain period of time (about one week in general). However, this does not apply where the symptoms are clearly attributable to a disease other than CSF or ASF, including cases where the symptoms are clearly attributable to another disease infiltrating the farm:
 - a. Fever not lower than Celsius 40C, malaise and decrease or loss of appetite
 - b. Constipation and diarrhea
 - c. Conjunctivitis (eye mucus)
 - d. Difficulty in walking, back-trunk paralysis and convulsions
 - e. Emaciation, rough fur and growth insufficiency (so-called runt pig)
 - f. Occurrence of abnormal birth including stillbirths and mis birth

g. Bleeding under skin, cutaneous erythema, bleeding from natural pore and blood feces

(iii) Multiple domestic pigs provided for breeding or fattening suddenly die in the same stall in a certain period (about one week in general). However, this does not apply where the symptom is clearly caused by something other than CSF or ASF, including the failure of equipment used for animal feeding, rapid temperature changes, fire disasters, wind and flood disasters and other emergency disasters.

(iv) A decrease in the leukocyte number (to fewer than 10,000/ μ l) or a left shift of neutrophilic leukocyte nucleus is confirmed on more than one animal in the same pig stall (if a single domestic pig is reared in a stall, in the same premise) in the case when blood test is implemented. However, this does not apply where the symptoms are clearly attributable to a disease other than CSF or ASF, including cases where the symptoms are clearly attributable to another disease infiltrating the farm:

[Note 37] Instruction regarding the cause of death is definitely unrelated to CSF or ASF

The prefectures shall instruct the farm to continue their observation for domestic pigs mainly in the surrounding of dead domestic pigs for a certain period (about one week in general) even if it is clear that domestic pigs die for reasons other than CSF or ASF such as the failure of equipment used for animal feeding, rapid temperature changes, fire disasters, wind and flood disasters and other emergency disasters. They shall also instruct the farm to notify a LHSC if any abnormal pig is identified.

3 Measures taken on the farm

(1) When reporting the above cases to the Animal Health Division according to 2-(3) above, the prefecture then sufficiently explains possible disease control measures to the owner of the pig farm in 2 above, and immediately takes the following measures in consultation with the Animal Health Division:

(i) Take samples of blood (blood serum and blood with anticoagulant added) of both the animals that show symptoms and the ones reared in the same stall, and transport them with carcasses or live animals suspected to be infected with CSF or ASF to a LHSC.

(ii) Take samples from the carcasses or live animals suspected to be infected with CSF or ASF for diagnosis at the LHSC.

(iii) Restrict the transfer of the following items from the farm concerned according to the provisions of Article 32-1 of the Act:

- a. Live domestic pigs
- b. Semen or fertilized ovum collected in the farm
- c. Carcasses of domestic pigs
- d. Manure of domestic pigs

- e. Bedding materials, feedstuff and equipment for animal feeding.
 - (iv) Restrict unauthorized access to the farm.
 - (v) Disinfect the clothes and equipment for animal feeding, which are used within the farm or at the entrance/exit of the farm.
 - (vi) Instruct farms within a 3 km radius around the subject farm as necessary, such as refraining from moving items listed in (iii) above.
- (2) The prefecture immediately collects the following epidemiological information on the farm concerned with regard to the past 28 days, and identify the suspected affected animal in V-2-(2) and epidemiology-related animals in XII-1-(2), and submit such information to the Animal Health Division.
- (i) Movement history of domestic pigs;
 - (ii) Movement range and entrance/exit history of the following people and vehicles from the farm:
 - a. Veterinarians and livestock artificial inseminators; and
 - b. Livestock carriers, feed carriers, carcass collection vehicles and compost carriers;
 - (iii) Shipping destination of manure;
 - (iv) Shipping destination of the semen and embryos; and
 - (v) Information on feeding.

[Note 38] Sampling for the antigen test

- Regarding sampling specified in IV-3-(1)-(ii), those for antigen tests shall be collected at a LHSC to the extent possible, to prevent the spread of pathogens. However, when it is difficult to transport domestic pigs or many samples are to be collected, they can be sampled in the farm provided attention is paid to the following:
- 1 The sampling site shall be selected to avoid spread of virus, such as sufficiently far away from other premises considering cases where body fluids are spread or leaked.
 - 2 Before a diagnosis, sufficient disinfection liquid shall be sprayed around the sampling site.
 - 3 Clothes impregnated with disinfection liquid shall be laid on a vinyl sheet, on which the carcass of the domestic pig shall be placed.
 - 4 To prevent mix-up of samples in collecting a test record shall be kept for each individual.
 - 5 At the time of sampling, measures against wild animals including crows and foxes should be taken such as setting a blocker including a tent lest wild animals prey on the carcass. In addition, no remaining sample shall be left.

6 After sampling, the carcass of a domestic pig shall be wrapped up with the vinyl sheet and the sampling site shall be disinfected by spraying disinfection liquid.

[Note 39] Report on epidemiological information on farm rearing abnormal pig

A competent prefectural livestock department shall report epidemiological information on the farm to the Animal Health Division via Appended Form 6.

4 Preparedness for a positive diagnosis

When reporting the above case to the Animal Health Division according to 2(3) above, the prefecture immediately takes the following measures and reports the details to the Animal Health Division (before disclosure of the test results specified in V-(1)-a at the latest).

- (1) Acquisition of information on the arrangement of premises on the farm of concern
- (2) Clarification of the situation regarding domestic pigs rearing on neighboring farms
- (3) Allocation of personnel and material for control measures including slaughtering of domestic pigs, which shall be in line with the recruitment and procurement plan stipulated in II-2-2-(1) (including whether to request dispatch of personnel or materials to government or other prefectures)
- (4) Assurance of burial sites or incineration facilities for dead body of affected or suspected affected animals (including whether to use MAFF's heavy quarantine equipment)
- (5) Selection the locations for disinfection points
- (6) Notification to municipality where the farm concerned is located, neighboring prefectures and the relevant groups

[Note 40] Reporting on preparedness in the event that a positive diagnosis is made

The prefecture shall implement a field survey of the concerned farm to identify the layout of buildings on the farm, the width of roads inside and outside the farm or the possible location of temporary tents or material storage areas, so that they can smoothly prepare for the event of a positive result.

The competent prefectural livestock department shall sort out details of measures developed to prepare for the occurrence of a positive test and report them to the Animal Health Division via facsimile or e-mail. Especially, they shall report as soon as it becomes available whether they request dispatch of personnel or materials to the government or other prefectures, since it takes time in coordination with other organizations.

5 Inspection at the LHSC by each prefecture

- (1) Prefectures shall conduct the following tests at a LHSC to find the existence or the

- absence of CSFV infection and report the results to the Animal Health Division:
- (i) Blood test (leucocyte counting and left shift of neutrophilic leukocyte nucleus);
 - (ii) Antigen tests (virus isolation tests, gene detection tests and fluorescent antibody method);
 - (iii) Serum antibody tests (ELISA method); and
 - (iv) Serum antibody tests (neutralization test. However, this is limited to cases where the antibody is positive in (iii).).
- (2) If the test in (1)-(ii) or (iii) results in positive, prefectures shall consult with the Animal Health Division in advance and send the necessary samples, including isolated virus, gene amplification products and blood serum, to NIAH.

[Note 41] Diagnosis

Attachment 1 “Diagnosis Manual of CSF” shall be referred to in conducting diagnosis at a LHSC.

[Note 42] Sending samples

When sending samples to the National Institute of Animal Health (NIAH), samples shall be properly transported pursuant to the provisions of Article 56-25 of the Regulation, with the copy of the Request for Diagnosis (Appended Form 7) attached. Additionally, the original request shall be sent separately.

6 Responses to suspicions of CSF in the surveillance to confirm the invasion state raises suspicions of CSFV

Prefectures shall, as a result of the investigation in III-1-1 through 3, immediately take the following measures after consulting with the Animal Health Division:

Additionally, if a positive result is identified in an investigation of wild boars in III-1-4, measures in XVI shall be taken.

- (1) If abnormalities are found in the clinical test in III-1-1: Measures from 3 to 5 above shall be taken.
- (2) If a positive is found in the antibody prevalence tests in III-1-2;
 - (i) If positive test results are confirmed via the ELISA method

A neutralization test shall be continuously conducted while prefectural animal health inspectors shall enter the farm and conduct on-site clinical tests (including measuring body temperature; same in (ii) and (3)) and collect the necessary samples.

In addition, based on the results of the clinical test, prefectures shall instruct the Pig owner to implement measures in 3-(1)(iv) and (v), request the implementation of measures in 3-(1)(iii) or a voluntary ban on movement of items of the farm listed in (iii) and proceed with the preparation in 4. Furthermore, they shall implement the tests in 5-(1)(i) and (ii), report the results to the Animal Health Division and if any one of these tests or a neutralization test is positive, they shall send the necessary

samples to NIAH in 5-(2).

(ii) If positive test results are confirmed in the neutralization test

Prefectural animal health inspectors shall enter the farm and conduct a clinical test and collect the necessary samples. In addition, based on the results of the clinical test, prefectures shall instruct the pig owner to take measures in 3-(1)(iii) to (v) and proceed with the preparation in 4. Furthermore, they shall implement the tests in 5-(1)(i) and (ii), report the results to the Animal Health Division and if any one of these tests is positive, they shall send the necessary samples to NIAH in 5-(2).

[Note 43] Requirement for lifting movement restrictions in farms where positive or pseudo-positive results were obtained in the ELISA assay in the investigation to check the status of spread

If the results of an ELISA assay are confirmed positive or pseudo-positive in the antibody prevalence tests in III-1-2 of the Guidelines, prefectural animal health inspectors shall enter the farm and confirm the status of clinical symptoms, epidemiological information, distribution of the individuals diagnosed positive (such as concentration to specific barns), take blood tests in IV-5-(1)-(i) of the Guidelines and gene detection tests in (ii) in all individuals targeted for the antibody prevalence test. If any suspicions are not confirmed in the on-site inspection, decrease in the leukocyte number (to fewer than 10,000/ μ l) is not observed in individual blood tests, and all individuals are confirmed negative in gene detection test, the movement restriction described in IV-3-(1)-(iii) of the Guidelines and the entry restriction in (iv) should be lifted at this stage.

Additionally, execution of the neutralization test in individuals that were positive in ELISA and a follow-up monitoring shall be continued at the farm location.

(3) If positive test results are confirmed in the neutralization test in the survey using diagnosis materials in III-1-3

If positive results are confirmed in the antigen test among the tests, the prefectural animal health inspector shall enter the farm, conduct a clinical test, take photos, collect the necessary samples and instruct the pig owner to take measures in 3-(1)(iii) to (v) while as required, they shall implement the test in 5-(1), report the results to the Animal Health Division and send the necessary samples to NIAH in 5-(2). In this case, the preparation in 4 above shall also be proceeded.

In addition, if positive test results are confirmed only in the serum antibody test among the survey using diagnosis materials in III-1-3, measures in (2)-(i) or (ii) shall be implemented.

[Note 44] Requirements to identify vaccine strain in the case of positive results in the gene detection test using diagnosis materials in III-1-3 of the Guidelines

If positive results are confirmed in the gene detection test using diagnosis materials described in III-1-3 of the Guidelines on vaccinated farms, the Animal Health Division shall evaluate whether these results are derived from the CSF vaccination after investigating the following information, while also considering the expert opinions contained in the Cattle and Pig Disease Subcommittee of Animal Hygiene Division of Food, Agriculture, and Farming Village Policy Council (hereinafter referred to as “the Subcommittee”)

1 This is the survey using diagnosis materials specified in III-1-3 and none of the symptom specified in IV-2-(3) of the Guidelines (hereinafter referred to as “the specific symptoms”) are confirmed in the farm.

2 Domestic pigs targeted for diagnosis

- (1) The animal must have been vaccinated within 30 days prior.
- (2) As a result of the gene detection tests, only tonsils, spleens, or kidneys show positive results while the serum is confirmed negative results.
- (3) The status of antibody production is confirmed in ELISA.

3 Domestic pigs reared in the same stall

- (1) Their leukocyte numbers are at least 10,000/ μ l in blood test.
- (2) The gene detection tests result in negative in serum.
- (3) Antibody production status was confirmed with ELISA.

7 Inspection by the NIAH

When the prefecture sends samples to the NIAH through the procedure in 5-(2) and 12-3-(1), NIAH shall conduct the necessary tests, including genetic test, and report the results to the Animal Health Division.

8 Others

- (1) When prefectures receive a notice on abnormal pigs in 1 above, confirm abnormal pigs in a clinical test in III-1-1, or confirm findings that the possibility of CSF cannot be denied in the diagnosis in III-1-3, they shall send to NIAH samples necessary to diagnose ASF (blood serum, blood with anticoagulant added, amygdalae, spleen and kidney of a dead domestic pig) immediately after consultation with the Animal Health Division without awaiting CSF test results for the purpose of diagnosis of ASF, which show the same symptoms with CSF. In this case, measures in 3-(1)-(iii) through (v) shall continue pending judgment that the domestic pigs were not affected with ASF. In addition, as required, prefectures shall conduct tests concerning other diseases, which may raise an issue of differential diagnosis.

Besides, as required, prefectures can send samples and conduct tests on other diseases, which raise issues of differential diagnosis, on consultation with the Animal Health Division in advance before the results of the virus isolation in 5-(1) -(ii) (including in response to 6) come out.

- (2) The measures in 1 through 7 and 8-(1) shall be taken equally when abnormal pigs are discovered through on-site inspection by prefectural animal health inspectors and not through the notification from owners.

Additionally, if the prefecture receives notification from slaughterhouses that abnormal pigs were found, they shall immediately send prefectural animal health inspectors to the slaughterhouse and the farm that shipped the animals, and take measures in accordance with 2 and 3. If the animals are found to have been shipped by farms from outside the slaughterhouse's prefecture, they shall be immediately reported to the Animal Health Division and animal health division/unit of the prefecture where the farm is located. The prefecture that received the report shall immediately send their prefectural animal health inspectors to the farm that shipped the animals and take measures in accordance to 2 and 3.

[Note 45] Consultation with the Animal Health Division to diagnose ASF

The prefecture shall consult with the Animal Health Division after confirming the following points, for sending samples to diagnose ASF. As ASF may show various symptoms from a peracute type to a chronic type depending on the varying pathogenicity of the virus, the Animal Health Division may confirm epidemiological information other than 1 and 2 below in the consultation:

- 1 Whether the clinical test conducted by the prefectural animal health inspector or interview to owners reveals domestic pigs with symptoms of fever, malaise and decrease or loss of appetite and this spreads among the group of domestic pigs and whether more than one domestic pig is found dead.
- 2 Whether the prefectural animal health inspector recognizes findings characteristic of ASF: enlarged spleen, or dark red celiac lymph nodes, or bleeding.
- 3 Whether a blood-coagulation defect is recognized in the blood findings.

[Note 46] Methods to store and transport samples to diagnose ASF

Regarding methods of preservation and transfer of samples for ASF diagnosis, samples shall be carried appropriately for the prevention of the spread of pathogens as follows, in line with Article 56-25 of the Regulation, and with a copy of Diagnosis Request Form attached. Additionally, the original Diagnosis Request Form shall be sent separately via post. At that point, a diagnosis request (Appended Form 7) shall be attached without fail:

- 1 Methods to store if organ materials can be obtained
- (1) Materials: amygdalae, spleen and kidney; and

(2) Storage of materials: Materials shall be closely sealed with a screw-cap type tube (conical) and refrigerated after taking measures to prevent pollution (leakage) by placing in a plastic bag.

2 Method to store blood if any:

(1) Materials; blood serum and blood with anticoagulant added; and

(2) Storage of materials: place material blood serum into a container that can be tightly capped with a ceramic tube Blood with anticoagulant added shall be collected in a vacuum blood collection tub with anticoagulant added. Disinfect the outside, place them in plastic bags to take measures to prevent pollution (leakage) and refrigerate them.

V Confirmation of diagnosis

The MAFF shall confirm the diagnosis through the following 1 and 2 when the required samples are sent to NIAH as a result of IV-5-(2), or IV-6-(2) through (3) (including a case where the Animal Health Division deems it especially important). The results shall be notified from the Animal Health Division to the competent prefectural livestock department.

1 Method for confirmation

The MAFF makes a confirmation in the manner specified in the following.

(1) In case where a notice of abnormal pig has been received

Confirmation shall be made based on the results of clinical tests (especially those in body temperature) in IV-2, the test results in IV-5-(1) and the results of genetic analysis and other tests conducted by the NIAH in IV-7 (hereinafter referred to as “the genetic analysis”) in light of the opinions of such experts as the commissioner of the subcommittee.

If the genetic analysis has not been completed,

(i) In cases other than (ii), the confirmation on the test results other than the genetic analysis shall be preceded by those on the genetic analysis, and identification in 2 shall be made as soon as possible.

(ii) If CSF occurs in succession in movement restriction zones in IX-1-(1) and epidemiological information is sufficiently collected, the identification in 2 shall be promptly made based on the results of tests other than the genetic analysis test.

(2) In case where positive results have been found from the surveillance on virus spread

(i) If abnormalities are found in the clinical test in III-1-1, confirmation shall be made based on the results of clinical tests (especially those in body temperature), the test results in IV-6-(1) and IV-5-(1) and the results of genetic analysis in light of the opinions of such experts as the commissioner of the subcommittee. The MAFF moves on to the process in 2 below if the infection is confirmed.

If the genetic analysis has not been completed on this occasion, the procedure in (1)-(i) shall be followed.

(ii) If the antibody prevalence test in III-1-2 resulted in positive, confirmation shall be made based on the results of the antibody prevalence test, the clinical test (especially those in body temperature) specified in (i) or (ii) of IV-6-(2), and the test results in (i) or (ii) of IV-5-(i), and the result of genetic analysis in light of opinions of such experts as the commissioners of the subcommittee. The MAFF moves on to the process in 2 below in the infection is confirmed.

If the genetic analysis has not been completed on this occasion, the procedure of (1)-(i) shall be followed.

(iii) If positive results are confirmed in the survey using diagnosis materials in III-1-3:

a. If the antigen test resulted in positive, confirmation shall be made based on the results of the antigen test, the clinical test (especially those in body temperature)

specified in IV-6-(3), results of the test in IV-5-(1) (limited to cases where the test is conducted) and results of a genetic analysis in light of the opinions of such experts as the commissioner of the subcommittee. The MAFF moves on the process in 2 below in the infection is confirmed.

If the genetic analysis has not been completed on this occasion, the procedure in (1)-(i) shall be followed.

- b. If positive results are confirmed only in the serum antibody test among the survey, the procedure in (ii) shall be followed.
- (iv) If positive results are confirmed in the investigation of wild boars in III-1-4, the MAFF shall proceed on to the diagnosis in XVII.

2 Affected animals and suspected affected animals

On the basis of the confirmation in 1 above, the MAFF identifies domestic pigs meeting any of the following conditions as affected animals or suspected affected animals. The results of the identification shall be notified by the Animal Health Division to the competent prefectural livestock department as soon as it is made.

(1) Affected animals

- (i) Domestic pigs whose CSFV is isolated in the virus isolation
- (ii) Domestic pigs which are detected by genetic tests (gene detection test and genetic analysis) as having specific genes of the CSFV
- (iii) Domestic pigs showing specific symptoms, which are detected by the fluorescent antibody method as having CSFV antigen, in case where specific symptoms are confirmed in more than one domestic pig in the same pig stall (if a single domestic pig is reared in one stall, in the same premise) as well as where CSF occurs in succession in movement restriction zones in IX-1-(1);
- (iv) Domestic pigs which live in the livestock barn (in the same animal quarters if domestic pigs are reared in one livestock barn) where more than one domestic pig with specific symptoms confirmed, are confirmed with specific symptoms and are detected by a gene detection test as having specific genes in a pestivirus when CSF occurs in succession in movement restriction zones in IX-1-(1); and
- (v) Suspected affected animals in (2)-(i) at the onset farm, (defined as a farm that gives the momentum of setting a movement restriction zone in IX-1-(1) (excluding the case setting the zone overlapping with other movement restriction zone previously established due to the outbreak at another farm) ; hereinafter the same shall apply), in which only suspected affected animals were confirmed, when affected animals are confirmed at other farms in the movement restriction zone or confirmed through an epidemiological investigation regarding the onset farm in XII-1.

(2) Suspected affected animals

- (i) Domestic pigs showing specific symptoms and detected by the fluorescent antibody method or a gene detection test to have pestivirus, when specific symptoms are also

- confirmed in more than one domestic pig in the same stall (in the same premise if domestic pigs in 1 are reared in the stall in 1) at the onset farm
- (ii) Domestic pigs reared at a farm where affected animals or suspected affected animals (those at the onset farm; hereinafter the same shall apply) are confirmed (hereinafter referred to as “affected farm”)
 - (iii) Domestic pigs reared in other farm where personnel working for animal feeding in the affected farm is working for animal feeding
 - (iv) Domestic pigs determined, by the epidemiological investigation described in XII-1-(1), to have contacted affected animals or suspect affected animals within 10 days before the day that the animal was diagnosed (or the day of onset if it is presumable, hereinafter to as the “confirmation date”)
 - (v) Domestic pigs determined, by the epidemiological investigation described in XII-1(1), to have contacted affected animals or suspected affected animals at a day before the 10th day prior to the confirmation date, which are determined by the prefectural animal inspector to be at risk of becoming affected animals in light of the state of onset of the relevant affected animals or suspected affected animals
 - (vi) Domestic pigs determined, by the epidemiological investigation described in XII-1-(1), for which artificial insemination was conducted using semen collected from affected animals or suspected affected animals within 21 days before the confirmation date.

[Note 47] How to count dates from the determination date of disease

The date to confirm the diagnosis itself shall not be counted.

[Note 48] Diagnosis of domestic pigs with vaccine strain identified

Even if the results of the antigen test in IV-5-(1) of the Guidelines is positive, the domestic pig is determined neither an affected animal nor suspected affected animal in case where a genetic analysis and epidemiological investigation obviously shows that the result is caused by the vaccine strain.

VI Response to the diagnosis

1 Notification to the concerned parties

- (1) When the prefecture is notified that the domestic pigs were confirmed as affected pigs or suspect affected pigs according to V-2, they shall immediately report the information and the location where the animals came to the following parties via phone, FAX, or e-mail.
 - (i) The owner of the said domestic pigs
 - (ii) The municipalities in the prefecture
 - (iii) Veterinary medical associations, producer and farmer groups and other related organization located in the prefecture
 - (iv) Local police, the Self-Defense Forces and other related organizations in the prefecture
 - (v) Adjacent prefectures

[Note 49] Notification to related parties relevant to countermeasures against wild boars

When domestic pigs are confirmed as affected pigs or suspected affected pigs in V-2 of the Guideline, the Animal Health Division shall notify the Wildlife Division of Nature Conservation Bureau, MOE and the competent Livestock Health Department of prefectures where the farm where affected animals or suspected affected animals were confirmed (hereinafter referred to as “affected farm”) is located or includes the area within a 10-km radius of the affected farm. The notified competent Livestock Health Department shall notify related agencies including Wild Animals Damage Prevention Office (MAFF) and Office for Wildlife Management (MOE) in the prefecture, municipalities, and related parties such as hunting clubs.

Additionally, if CSFV or antigen to CSFV is detected from wild boars, the information shall be certainly shared among related agencies, related parties, and neighborhood prefectures in the same way.

- (2) According to (1) above, the prefecture also provides information of the specific location of the farm where affected pigs or suspected affected pigs were confirmed, to farms located in the area within a 3-km radius of the farm concerned, and to parties that the prefecture deems it necessary.
- (3) When providing information of specific location according to (2) above or explaining the policy for information sharing, the prefecture shall sufficiently explain that the information is shared only for the purpose to prevent CSF from spreading in the area, and provide necessary instruction not to use the information for other purpose or not to leak it, to the parties receiving the information. In this instruction by prefectures, posting the information to web-site shall be strictly prohibited due to the risk to be widely spread.

- (4) When receiving a notification that the domestic pigs were not affected pigs or suspect affected pigs, the prefecture shall report it to the pig owner and the parties specified in IV-4-(6). The prefecture also investigates the cause of any abnormality that required notification, explains the result of the investigation to the pig owner and reports it to the Animal Health Division.

2 Establishment of a Response Headquarters and cooperation among the Government and the prefecture

- (1) After confirming affected pigs or suspected affected pigs, the MAFF shall immediately organize a Response Headquarter for CSF control (hereinafter referred to as “the Headquarter”), with the Minister of Agriculture, Forestry and Fisheries acting as the General Manager, and develops the control policy, including the initial responses. The Headquarter can be organized before the confirmation if it is specifically necessary.
- (2) In collaboration with the NIAH, the National Livestock Breeding Center (NLBC) and other related organizations, the MAFF shall dispatch the following staff to the prefecture in which an outbreak occurred.
- (i) Staff who can appropriately communicate the control policy specified in (1) above to prefectures and make arrangements for the government and the prefecture to promote their close cooperation.
 - (ii) Epidemiology experts who can accurately grasp the infectious status so that the control policy specified in (1) above can be revised (and the Emergency Guidelines can be developed) timely and appropriately.
 - (iii) An emergency support team that is familiar with disease control measures, including the slaughter and burial process, and can support specific control measures taken by the prefectures.
 - (iv) An epidemiological investigation team to be set up under the Subcommittee.
- (3) The prefecture should smoothly conduct disease control measures in line with the control policy specified in (1) above. For this purpose, immediately after being notified of a confirmation of affected pigs or suspected affected pigs, the prefecture shall organize a Prefectural Response Headquarters for CSF control (hereinafter referred to as “the Prefectural Headquarter”), which shall be consisted of relevant departments. The Prefectural Headquarter can be organized before the confirmation if it is specifically necessary for prompt and appropriate disease control.
- (4) The prefecture should define each role for disease control, procurement, epidemiological investigation, public relations or cash management in the Prefectural Headquarter so that the Prefectural Headquarter can smoothly and sufficiently fulfill its roles and functions.
- (5) Staff dispatched from the MAFF as specified in (2)(i) shall attend the Prefectural Headquarter, communicate the control policy specified in (1), and make necessary

arrangement.

- (6) In order to implement smooth and appropriate control measures, the Prefectural Headquarter shall establish a regime for communication with municipalities, the local police, veterinary medical associations, and producer and farmer groups
- (7) The MAFF shall immediately provide or lend materials/equipment for disease control, which they possess, to the prefecture when receiving request from the prefecture.
- (8) When Response headquarters other than Headquarter or Prefectural Headquarter is organized. In this case, its purpose and scope shall be clarified so that any duplication or confusion of reporting line may be avoided.

[Note 50] Prefectural Response Headquarters

1 Establishment of the Prefectural Headquarter

The prefecture shall establish Prefectural Response Headquarter (hereinafter referred to as “Prefectural Headquarter”), considering the organizational structure in 2 below, to smoothly implement control measures and to communicate and make arrangement with the government and neighborhood prefectures. Additionally, as necessary for early resolution or smooth implementation of control measures they shall establish On-site Response Headquarters nearby the affected farm (e.g. LHSC), where prefectural government officers who can make prompt decision on control measures can continuously stay.

In these cases, a contact person may be sent from MAFF to Local Response Headquarters in order to support the control measures of the prefecture.

2 Organizational structures

The Prefectural Headquarter shall be organized with a prefectural governor as the General Manager and following units under the general manager, with cooperation among the relevant divisions including crisis management departments.

- General Affairs Unit: Plans the specific prefectural control policy in accordance with the government control policy, compiles and implements the budget, analyzes the situation, facilitates liaison and communication with the MAFF and other related organizations (including liaison and communication with the affected farm, On-site Response Headquarters, animal health division/unit) and holds inter-ministerial liaison meetings.
- Information Unit: Collects information on the status regarding outbreaks and control measures, prepares PR documents, provides PR information, and responses to inquiries.
- Diagnosis Unit: Conducts on-site inspections after receiving notification of the presence of abnormal pigs, takes samples for diagnosis, receives and sends the relevant samples, and makes diagnosis.
- Instruction Unit: Investigates the affected farm and provides advice to the general affairs unit on planning and instruction of control measures.
- Support Unit: Procures and distributes materials and equipment for incineration, burial, disinfection, allocates personnel, and coordinates related operations.

- Implementation Unit: Implements control measures, such as access restriction, stamping-out, disinfection of the farm, and investigation of farms in the movement restriction zone and shipment restriction zone (hereinafter referred to as “restriction zone”).
- Evaluation Unit: Evaluates domestic pigs and goods on the affected farm and neighboring farms before offering relief to them.
- Record Unit: Records information such as the relative position (location) of affected animals in the stall and their number, confirms the stages of any lesions on affected animals, photographs them, and films the state of control measures
- Epidemiological Investigation Unit: To prevent the spread, collects epidemiological information regarding traffic of livestock, people, material, and vehicles in the affected farms, and implements a research for identifying epidemiology-related domestic animals.
- Cause Investigating Unit: Collects and organizes information necessary to identify the infection route and implements on-site investigation in cooperation with epidemiological investigation team. Additionally, they work for confirmation tests among wild animals
- Administration Unit: Carries out administrative work to secure a sufficient budget for various expenses, including relief
- Healthcare Unit: In cooperation with the Public Health Department (including the division of the municipality, when a public health center is present), checks on the health condition of personnel in charge of control measures and pig owners and provides them with health consultation services (including mental health consultation services).

3 Announcement to the mass media

- (1) When affected pigs or suspected affected pigs are confirmed according to V-2, the MAFF and the prefecture announce the details and future control measures to the mass media. If deeming it necessary for smooth and appropriate implementation of control measures, the Animal Health Division may publish it before the confirmation after consulting with the prefectural livestock department.
- (2) In principle, the MAFF and the prefecture simultaneously issue the announcement specified in (1) above.
- (3) During issuance of the announcement specified in (1) above, accurate information should be provided regarding the risk of virus spread via humans or, vehicles. When the information on the affected farm is disclosed, it should be limited to the location of the relevant farm; the name of the relevant farm must not be disclosed.
- (4) After sufficient consultation between the Animal Health Division and the competent prefectural livestock department, the progress of control measures should be announced to the mass media, as needed.
- (5) The mass media shall be requested to take a cooperative approach in the following manner:
 - (i) Give full consideration to privacy protection.
 - (ii) Do not access the affected farm and refrain from interfering in the measures

implemented for epidemic prevention and disease control.

[Note 51] Press release

Press release after the confirmation of affected pigs or suspected affected pigs shall be issued in accordance with Appendix 8.

[Note 52] Seeking the cooperation of mass media

The prefecture, mainly Information Units, shall seek cooperation of mass media in terms of matters specified in VI-3-(5) by providing photos of the area near the farm as well as operation of control measures at the farm to them.

4 Securing personnel needed for control measures

(1) Based on the recruitment plan prepared according to II-2-2-(1) and measures taken in IV-4, the prefecture shall develop concrete control plans regarding personnel needed for an epidemiological investigation, implementation of control measures such as stamping-out in the affected farm, restriction of movement, establishment of disinfection points. Then, in cooperation with the municipalities, police departments, veterinary medical associations, producer and farmer groups, the prefecture promptly secures these personnel. They shall also immediately report on the developed plan to the Animal Health Division.

Additionally, if personnel are still insufficient for the development of the concrete control plan, even with a dispatch of additional personnel from MAFF or NLBC, or prefectural animal health inspectors from other prefectures, may consider request for Self-Defense Forces.

(2) The prefecture shall have discussions with the Animal Health Division, if they make request of dispatch to MAFF, NLBC or prefectural animal health inspectors from other prefectures, based on the concrete control plan developed as per (1).

[Note 53] Securing personnel needed for control measures

1 The prefecture shall identify the whereabouts of cooperative personnel in advance and summon them as needed in order to start control measures immediately after confirmation of CSF.

2 The prefecture shall check in advance whether the candidates are engaged in rearing domestic pigs and assign those so engaged to operations that are not directly related to the control measures.

3 The prefecture shall consult the Animal Health Division about the number of necessary

personnel, time period, content of operations in the case where the prefecture request dispatch of prefectural animal inspectors from other prefectures. The Animal Health Division discusses with those prefectures and prepares a concrete dispatch schedule.

- 4 The prefecture shall consult the Animal Health Division and make close coordination with the organization when they request dispatch of additional personnel from the organization due to the insufficiency for the quick implementation of control measures, even with a dispatch from MAFF, NLBC or other prefectures.
- 5 If the prefecture requests support from prefectural or related organizations, they shall clarify the operational regime, operation procedures, logistical support, policy on public relations (including role sharing and dispatch periods) and prepare for the quick execution of control measures, such as stamping-out

VII Control measures on the affected farms

1 Stamping-out (Article 16 of the Act)

- (1) The prefectural animal health inspector shall issue an instruction for slaughter to the owner of affected pigs or suspected affected pigs.
- (2) In principle, only one gateway on the affected farm is allowed to be used; the remaining gateways must be closed by gate or ropes.
- (3) In principle, the prefecture shall take measures to prevent pathogens from spreading from the affected farm to neighboring farms by distributing slacked lime, installing adhesive sheets, distributing rat poison around the affected farm and farms (they shall be the farms to inspect in XII-2-(1) of the Guideline) located within a 1-km radius, immediately after the confirmation of affected pigs or suspected affected pig according to V-2 in principle. These measures shall be taken before the confirmation of the affected pigs or suspect affected pigs as necessary.
- (4) Affected pigs or suspected affected pigs shall be slaughtered within the farm within 24 hours after the completion of the measures specified in (3) above at the affected farm with the completion of confirmation.
- (5) Higher priority shall be given to the slaughter of domestic pigs whose clinical signs are confirmed.
- (6) The following measures shall be taken at the time of slaughter out of premises:
 - (i) Cover the surrounding with blue sheet so that it cannot be seen from the outside.
 - (ii) Set simple fences or give sufficient retention so that domestic pigs cannot run away.
- (7) Slaughter shall be swift using poison, electricity, CO₂ gas, while taking care to ensure the safety of those engaged in control measures.

In addition, consideration shall be given from the perspective of animal welfare whenever possible, such as use of sedatives or anesthetic agents. Due respect shall be

paid to the sentiments of owners and those engaged in control measures.

- (8) To facilitate control measures and to investigate routes of infection, the prefecture shall, in cooperation with the government, record the locations and numbers of domestic pigs that had developed the disease at the time of, or prior to slaughter and take clear photographs of the lesions. In addition, the prefecture, in consultation with the Animal Health Division, shall collect test samples according to the number of reared domestic pigs, including the ones that have not yet developed the disease.
- (9) The prefecture should actively seek the cooperation of private veterinarians and related parties in the livestock industry and complete the slaughter promptly under the instruction of prefectural animal health inspectors.
- (10) In farms with contingency plans formulated based on II-2-2-(4), slaughter shall be executed per the plan.

[Note 54] Implementation of control measures on the affected farm

- 1 The prefecture shall designate the sites in advance to ascertain the location to set up temporary tents and store materials based on suitable positions on the farm's premises. The prefecture also appoints the managers responsible for the entire project (general manager) and each task and clarifies the chain-of-command structure.
- 2 The prefectural animal health inspector shall explain the outline of CSF, the content of relevant laws and regulations, the obligations of the owners, and the control policy to the pig owner. Moreover, they shall explain without omission that it is not possible to request a review under the Administrative Complaint Review Act (Act No. 68 of 2014) in accordance with Article 52-3 of the Act.
- 3 Where necessary in conducting control measures at a large-scale farm, the prefecture shall prioritize operations, such as the slaughtering domestic pigs reared in the stall or stalls nearby, where the affected or suspect affected pigs were found in V-2 of the Guidelines, according to the rearing situation of each farm, infectious status, and structure and equipment of the premise, surrounding environment (the number of farms in the neighborhood, stocking density of the animals), to take quick control measures.
- 4 The general manager in the field shall confirm the planned number of animals for slaughter, method of slaughter, method of processing carcasses, area of the disinfection, and other important matters with Prefectural Headquarter to receive direction.
- 5 The types and number of samples for identification of the infection route shall be determined through discussions with the Animal Health Division according to the rearing situation of each farm, infectious status, structure and equipment of the

premise. Generally, the number of samples taken should be generally 10 per premise. In consideration of the importance of the inspection, as many animals as possible should be randomly selected for sampling.

[Note 55] Personnel in charge of control measures

The personnel in charge of control measures should conduct them in view of the following.

- 1 Wear protective clothing and boots before entering the farm and do not bring personal items with them.
- 2 When leaving the farm, disinfect themselves, their clothing, footwear and goggles and then remove protective clothes and wash their hands and face, and gargle. Immerse uniforms that were worn on the farm into a disinfectant solution and then put them into a plastic bag. Spray the outside of the bag with disinfectant solution before removing it from the farm.
- 3 The Prefectural Headquarter should take necessary measures, such as setting up tents at the entrance of the farm, for them to easily change clothes and footwear at the farm. They shall make sure that worker traffic lines do not cross each other.
- 4 When returning to the office (home), disinfect the vehicle used for travel and wash all clothes worn during the operations. Take a bath and wash thoroughly.
- 5 Do not touch any domestic pigs other than those at the affected farm for 7 days after involvement in the control measures. In case where it was confirmed that biosecurity measures at the time of implementing control measures or leaving the affected farm had been taken appropriately during disease control operations on the affected farms, the aforementioned 7-day period can be shortened to 3 days.
- 6 The Prefectural Headquarter shall endeavor maintain the mental and physical health of personnel in charge of control measures, in cooperation with the Public Health Department (including the relevant municipal departments when a public health center is present) by a measure such as monitoring their health condition before and after the operations.

[Note 56] Issuing an instruction for slaughter

Prepare an instruction for slaughter by the prefectural animal health inspector to the owner of the affected pigs or suspected affected pigs using the Appended Form 9.

[Note 57] Measures to prevent dispersion of pathogens before the control measure

The prefecture shall promptly and effectively prevent dispersion of pathogens outside of the affected farm by taking measures such as distributing slacked lime, installing adhesive sheets, and distributing rat poison in within the affected farm and farms located within 1-km radius from it (they shall be the farms to inspect in XII-2-(1) of the Guideline). Those measures can be outsourced to professional companies if necessary.

2 Carcass disposal (Article 21 of the Act)

- (1) In case of having been confirmed as being affected pigs or suspected pigs as per the provisions of V-2 herein, the carcasses of affected pigs or suspected affected pigs shall be buried in or around the affected farm (limited to areas that are separate from dwelling houses, water sources, rivers or roads, and where no humans or domestic pigs routinely approach) within 72 hours after the completion of the measures at the affected farm specified in 1-(3).
- (2) The carcasses may be moved from the farm for burial purposes because no land for burial can be secured in or around the farm. In this case, consult with the Animal Health Division and take the following measures:
 - (i) Sufficiently disinfect the carcass.
 - (ii) In principle, use an enclosed carrier vehicle or sealed containers. If neither is available, cover the floor and side surfaces of the carrier vehicle to be used for this purpose with plastic sheets, and after loading the package, cover the upper part of the load with a plastic sheet as well, or take other measures necessary to prevent any load spillage.
 - (iii) Disinfect the entire surface of the carrier vehicle before and after loading.
 - (iv) In principle, avoid travelling near other farms, and choose transportation routes that are not used by other livestock-related vehicles.
 - (v) Fully disinfect the carrier vehicle at the disinfection points
 - (vi) During transport, carry a certificate confirming that the vehicle and its load are not subject to the prohibition or restriction prescribed in Article 32, Paragraph 1 of the Act, and show the certificate to personnel in charge at the disinfection points
 - (vii) A prefectural animal health inspector attends to the carcass disposal site.
 - (viii) After transport, immediately disinfect the vehicles and materials used.
 - (ix) Record the course of the transportation process and maintain a record of it.
- (3) If dispose by burial is difficult, incineration or rendering may be applied after consultation with the Animal Health Division (all rendered carcasses must be incinerated or buried without fail). For moving carcasses bound for incineration or rendering, measures according to (2) above shall be applied, and for moving materials after the rendering, measures similar to (2) shall be applied according to the state of the product. In principle, burial after rendering shall be done in locations specified in

- (1) above.
- (4) If carcasses are disposed of by incineration or rendering, take the following measures. If they are incinerated after rendering, the following measures shall be taken depending on the condition of the products concerned:
- (i) Take measures such as spreading plastic sheets from the carrier vehicle to the location where carcasses are disposed of.
 - (ii) Take measures such as separation of the locations for carcasses and product storage.
 - (iii) Disinfect the route from the entrance of the incineration facilities to the location where carcasses are disposed of, immediately after their introduction into the incineration or rendering process.
 - (vi) The prefectural animal health inspector monitors the process of disposal and checks the completion of incineration or rendering and disinfection of equipment and route in (3) above.
- (5) In farms with contingency plans formulated based on II-2-2-(4), the carcasses shall be disposed of per accordingly.

[Note 58] Completion of the slaughter within 24 hours and incineration and burial within 72 hours

Since quick destruction of affected pigs or suspected affected pigs and processing of their carcasses are important for early containment, the standard period of 24 and 72 hours is required. However, these standards are followed under the assumption that farms are rendering fattening pigs in an environment where there are no significant obstacles to control measures on a scale of 1,000 to 2,000 domestic pigs.

The time needed for disposal of carcasses differs depending on the scale of farms, structure of the premise and weather conditions. In this situation, these measures shall be implemented according to each practical situation with ensuring appropriate control measures to prevent disease spread and the safety and health condition of the personnel in charge of control measures.

Additionally, they shall endeavor to construct the complete system, through allocation of human and material resources, including veterinarians necessary for control measures and training at normal times, so that prevention measures can be taken appropriately and quickly even under these kinds of conditions. If slaughtering is required on large-scale farms, it shall be executed based on the priorities described in Note 50.

[Note 59] About accompanying prefectural animal health inspector to the place where carcasses are processed

Persons accompanying carcass movements to facilities at which they are processed can be prefectural animal health inspectors or government officers in the prefecture, who are designated by the animal health inspectors.

3 Disposal of contaminated articles (Article 23 of the Act)

- (1) The following articles retrieved from the affected farm shall be treated as contaminated objects, and buried in or around the affected farm (limited to areas that are separated from dwelling houses, water sources, rivers and roads, and where no human or domestic pigs routinely approach). If disposal by burial is difficult, incineration, rendering or disinfection may be applied after consultation with the Animal Health Division. In addition, contaminated objects shall be separated and covered before disposal so that wild animals including wild boars cannot come in contact with them.
 - (i) Body materials such as semen or embryos (excluding semen or embryo collected before the 21st day prior to diagnosis confirmation, and separately managed (i.e., isolated and separated to prevent contact with contaminated or assumed contaminated materials; hereinafter the same shall apply.)
 - (ii) Manure of domestic pigs
 - (iii) Bedding materials
 - (iv) Feedstuff
 - (v) Objects that may be polluted by other viruses
- (2) Contaminated articles may be moved from the affected farm as needed. In this case, consult with the Animal Health Division and take the following measures. In the case of transportation of the products after rendering, similar measures shall be taken according to the state of the product.
 - (i) In principle, use an enclosed carrier vehicle or sealed containers. If neither is available, cover the floor and side surfaces of the carrier vehicle to be used for this purpose with plastic sheets, and after loading the package, cover the upper part of the load with a plastic sheet as well, or take other measures necessary to prevent any load spillage.
 - (ii) Disinfect the entire surface of the carrier vehicle before and after loading.
 - (iii) In principle, avoid travelling near other farms, and choose transportation routes that are not used by other livestock-related vehicles.
 - (iv) Fully disinfect the carrier vehicle at the disinfection points
 - (v) During transport, carry a certificate confirming that the vehicle and its load are not subject to the prohibition or restriction prescribed in Article 32, Paragraph 1 of the Act, and show the certificate to personnel in charge at the disinfection points
 - (vi) After transport, immediately disinfect the vehicles and materials used.
 - (vii) Record the course of the transportation process and maintain a record of it.
- (3) If contaminated articles are disposed of by incineration, rendering or disinfection, take the following measures. If they are incinerated after rendering, the following measures should be taken depending on the condition of the products concerned:

- (i) Take measures such as spreading plastic sheets from the carrier vehicle to the location where contaminated articles are disposed of.
 - (ii) Take measures such as separation of the locations for contaminated articles and product storage.
 - (iii) Disinfect the route from the entrance of the disposal facility to the location where contaminated articles are disposed of, immediately after their introduction into the incineration, rendering or disinfection process.
- (4) In farms with contingency plans formulated based on II-2-2-(4), contaminated articles are disposed per the above plan.

[Note 60] Disposal of contaminated articles

Upon completion of the following measures, the disposal of contaminated items as specified in VII-3-(1) of the Guidelines shall be deemed to be completed in consultation with the Animal Health Division.

However, the movement of feed or manures within the farm shall be prohibited until the prefectural animal health inspector confirms that the necessary treatment to inactivate the virus contained in the feed or manures within the farm has been completed. This does not apply to cases where those articles are moved outside the farm for treatment necessary for inactivation after thorough measures are taken to prevent dispersion during transportation under the direction of the prefectural animal health inspector.

- 1 All contaminated articles are put in close containers before they are transported from the farm to the incineration facility;
- 2 Manure, bedding materials and feedstuffs of domestic pigs are completely contained for disinfection after thorough measures to prevent the spread of pathogens and to control litter are taken; and
- 3 For slurries, urine and polluted water, at least 30 minutes after 0.5% of lime hydrate (calcium hydroxide) or sodium hydroxide is added and stirred.

4 Disinfection of premise (Article 25 of the Act)

The premise where affected pigs or suspect affected pigs were kept shall be disinfected more than 3 times at a week interval after completion of stamping-out in compliance with the standards specified in Article 30 of the Regulations for Enforcement of Act on Domestic Animal Infectious Diseases Control (No. 35 Ordinance of the Ministry of Agriculture and Forestry, 1951).

Disinfection shall be carried out using a high-temperature steam, sodium hypochlorite solution, alkali solution, invert soap liquid.

In farms with contingency plans formulated based on II-2-2-(4), premises are disinfected per the above plan.

[Note 61] Control measures at the time of outbreak in slaughter plants

If abnormal pigs in slaughterhouses or livestock markets are confirmed as affected pigs or suspected affected pigs, control measures according to VII-1 through 4 of the Guidelines shall be taken in the said slaughterhouses or livestock markets.

Additionally, if the infection occurred in slaughterhouses, slaughtering in those slaughterhouse (including the mooring facility, facility for slaughtering sick animals) shall be also considered.

Additionally, disinfection in slaughterhouses according to VII-4 of the Guidelines, must be explained to the owner of the facility and measures based on the structure of facilities taken. Therefore, cooperation in consultation and communication between animal health section and the slaughterhouse shall be requested of the public health section as necessary and implemented smoothly through the cooperation with of entire region.

The disinfection of the slaughterhouse shall be implemented once or multiple times after cleaning it so that excreta may be sufficiently removed.

5 Spraying of rodenticides in premise

As a measure to prevent the spread of pathogens, when cleaning and disinfecting the premise after slaughter, measures such as installing adhesive sheets to catch rodents or, spraying rodenticides should be taken.

6 Appraisal of domestic pigs

- (1) The value of the domestic pigs is estimated based upon their condition before they were confirmed as affected pigs or suspected affected pigs. It does not take into account for the domestic pigs any currently confirmed as affected pigs or suspected affected pigs.
- (2) The value is principally computed by the sum of production costs (computed with statistical data) from the introduction day to the day of confirmation to the initial price. Subsequently value is added or subtracted based on body shape, reproductive history and time remaining for breeding
- (3) Pig owners shall photograph each animal to be slaughtered (or a representative individual if grouped) to record body shapes and skeletons to be used as benchmarks for calculating its appraised value before slaughter.
- (4) When it deems difficult for the prefecture to promptly calculate the value of the animals, the MAFF consults with the ministries and relevant agencies and makes a payment based on a rough estimate as soon as possible.

[Note 62] Calculation of the values of domestic pigs

In principle, the value of the affected pigs or suspect affected pigs is calculated per to Appendix 2.

VIII Restriction or prohibition of traffic (Article 15 of the Act)

- 1 The prefecture or the municipal governments shall, immediately after confirming the outbreak of CSF, in consultation with the Animal Health Division and in collaboration with the competent police department and other local government(s) concerned, restrict or prohibit traffic in the vicinity of the affected farm. However, traffic for the purpose of commuting, medical or welfare service may be allowed on condition of sufficient disinfection.

- 2 In the case where it is required to continue to restrict or prohibit traffic for a period exceeding 72 hours as prescribed by the Act, advance coordination shall be made in consultation with the road administrator and other relevant parties if needed to ensure implementation of appropriate measures such as encouraging voluntary drawdown of traffic.

- 3 When introducing traffic restriction/prohibition, in accordance to Article 5 of the Implementing Ordinance (Government Ordinance No. 235 of 1953), the prefecture shall endeavor to provide an explanation in advance about the overview and necessity of such a restriction/prohibition or marking to the residents of the municipalities concerned, and if this advance explanation is difficult to carry out, an explanation shall be provided promptly after implementation.

IX Establishment of a movement restriction zone and a shipment restriction zone (Article 32 of the Act)

1 Establishment of a restriction zone

(1) Movement restriction zone

- (i) The prefecture shall, in a case of having been notified of any domestic pigs confirmed as being affected pigs or suspected affected pigs as per the provisions of V-2 herein, promptly establish an area within a 3-km radius (as a rule) from the affected farm as the area where movement of domestic animals (specified in 4 below; the same shall apply to (2) and 5-(6) below) is prohibited (hereinafter referred to as a “movement restriction zone” in the Section 1) in consultation with the Animal Health Division; provided, however, that where CSF is considered highly likely, the movement restriction zone is established without waiting for the V-2 diagnosis to be determined, in consultation with the Animal Health Division.
- (ii) If the delay of the notification seems obvious from the infectious status of the affected farm, or if the epidemiological information in IV-3-(2) suggests that the epidemic has already spread, the prefecture shall define the movement restriction zone beyond the 3-km diameter, based on a discussion with Animal Health Division, and depending on the number of surrounding farms and stocking density. In this case, it is also possible to define the whole prefecture where the affected farm is located or to define all related prefectures including the above prefecture as the movement restriction zone.

(2) Shipment restriction zone

In principle, the prefecture shall establish an area within a 10-km radius around the affected farm circumscribing the movement restriction zone from which transportation of domestic animals is prohibited (hereinafter referred to as a “shipment restriction zone”).

In the case described in (1) -(ii) above, the shipment restriction zone shall comprise the area within a 7-km radius from the outer boundary of the movement restriction zone.

(3) In case of outbreak at a domestic animal market or slaughterhouse

The Prefecture shall take following measures upon consultation with the Animal Health Division if domestic pigs located at a livestock market or slaughterhouse are determined as affected pigs or suspected affected pigs pursuant to V-2.

- (i) The area within a 1-km radius of the livestock market or the slaughterhouse shall be set as a movement restriction zone.
- (ii) As a general rule, similar to (1) and (2), a movement restriction zone and shipment restriction zone (hereinafter referred to as “restriction zone”) shall be set around the affected farm.

(4) Method of establishing the restriction zone

- (i) The outer boundary of the movement restriction zone and the outer boundary of

the shipment restriction zone shall be established on the basis of the administrative units of municipalities, or other landmarks adequate to delineate borders such as roads, rivers, and railroads.

- (ii) If the restriction zone extends into multiple prefectures, under the guidance of the Animal Health Division, the prefectures concerned shall carry out sufficient consultations with each other in advance.
- (iii) Prior to the establishment of each restriction zone, the following measures shall be taken. If taking these measures in advance is difficult, they shall be implemented immediately after establishment.
 - a. Notification to the owners of domestic pigs within the restriction zone, municipalities and related organizations.
 - b. Publications through press releases.
 - c. Posting signs between a major road and the boundary of the movement restriction zone.

(5) Contacting pig owners

When establishing a restriction zone, the prefecture shall, promptly inform the pig owners within the restriction zone of its establishment and the location of the affected farm by telephone, FAX, e-mail, and provide an explanation on scheduled investigations

(6) Instructions provided to pig owners within the restriction zone

When establishing restriction zones, prefecture shall instruct all pig owners in the restriction zone to closely observe health conditions and to thoroughly take biosecurity measures to prevent wild animals such as boars from invading to the farm. In addition, based on Article 52 of the Act, the prefecture shall request the owners for daily reports on the numbers of domestic pig deaths until the restrictions on the area are lifted.

[Note 63] Instructions that apply in the restriction zone

Prefectural animal health inspectors shall instruct related parties to perform following activities in the restriction zone. Additionally, they shall visit the related facilities as necessary and monitor the implementation status.

1 In requesting reports in accordance with Article 52 of the Act, the minimum necessary items that the prefecture requires from farms are as follows, and if other necessary items are found, additional reports should be requested as appropriate.

- (1) The existence/absence of any specific symptoms
- (2) The number of the dead pigs, if any, (i) Location of the dead pigs (name of the premise and the location of the stall), (ii) Animal's age in days (or body weight), (iii) Likely cause of death
- (3) The number of stillborn piglets
- (4) The number of live born piglets

- (5) The number of sows that had abnormal production
 - (6) The number of domestic pigs shipped from the farm;
 - (7) The number of domestic pigs introduced to the farm; and
 - (8) Clinical findings of domestic pigs reared with the dead pigs.
- 2 The farm shall voluntarily ban the entrance and exit of sites where domestic pigs are raised by non-relevant persons and the frequency of entrance and exit by relevant persons shall be minimized.
 - 3 Vehicles and people shall be thoroughly disinfected when coming in and out.
 - 4 In addition to thoroughly implementing control measures, including thorough disinfection of vehicles delivering livestock feed, examination of delivery route, restricted feedstuff delivery areas, the delivery route shall be recorded.
 - 5 When a veterinarian diagnoses domestic animals, he/she shall carry the minimum instruments and drugs, wear and use easily disinfected or disposable medical clothes and medical instruments and thoroughly disinfect the body, instruments, vehicles in coming in or out the farm. In addition, he/she shall thoroughly take measures to prevent pathogens spreading such as a voluntary ban on driving medical vehicles into the farm premises, and the route shall be recorded.
 - 6 Vehicle entering and exiting carcass handling plants, rendering plants and slaughterhouses shall be thoroughly disinfected.
 - 7 In areas in which contacts between wild boars and domestic pigs are assumed, surrounding equipment shall be installed and feedstuff at farms raising domestic pigs shall be separated and stored to prevent contact with wild animals including boars.
 - 8 They shall request related agencies such as the Wild Animals Damage Prevention Office (MAFF) and Office for Wildlife Management (MOE) for assistance in requesting related parties including municipalities and hunting clubs to process wild boar's carcasses (including those killed by hunting) appropriately by incineration or burial, without leaving them in the field.

2 Revisions to the restriction zones

(1) Expansion of restriction zones

If the infectious status or other factors suggest the occurrence multiple cases of infection outside the movement restriction zone, the restriction zone shall be expanded upon a consultation with the Animal Health Division.

(2) Reduction of restriction zones

If the infectious status, surveillance around the farm or results of an epidemiological investigation reveal the infection spread is restricted, the scope of movement restriction zone can be reduced to a 1-km radius upon consultation with the Animal Health Division. On this occasion, the shipment restriction zone will be set in the area within 7 km from the outer edges of the movement restriction zone.

3 Lift of the restriction zone

The restriction zone shall be lifted upon consultation with the Animal Health Division if every section in the following area meets every requirement of the section.

(1) Movement restriction zone

- (i) Negative results are confirmed at all farms in a freedom confirmation surveillance prescribed in XII-2-(2), which is conducted after 17 days (period not exceeding 30 days determined upon consultation with the Animal Health Division if 17 or more days are deemed required in light of the state of outbreak and results of the virus property analysis) have elapsed from the day on which all control measures have been completed at every affected farm located in the movement restriction zone (meaning that the slaughter specified in Article 16 of the Act, the processing of carcasses specified in Article 21 of the Act, processing of contaminated objects specified in Article 23 of the Act and (first) disinfection of premise specified in Article 25 of the Act are completed in full; hereinafter the same shall apply).
- (ii) 28 days have elapsed since the completion of control measures at every affected farm in the movement restriction zone.

(2) Shipment restriction zone

All farms shall be confirmed negative in a freedom confirmation surveillance pursuant to XII-2-(2) conducted in (1)-(i).

[Note 64] Consultation with the Animal Health Division related to cancellation of the restriction zone

If isolated virus properties, pathogenicity do not trigger clear clinical signs in domestic pigs another test shall be added as required in light of the opinions of such experts as the commissioner of the subcommittee after a test to confirm disease-free status and before cancellation of zones of restricted movement.

4 Items subject to restriction

The following items shall be subject to movement and shipment restrictions:

- (1) Live domestic pigs;
- (2) Semen, embryos collected in movement restriction zone (excluding those which were collected before the 21st day prior to the diagnosis confirmation and which were separately managed);

- (3) Carcasses of domestic pigs;
- (4) Manure of domestic pigs; and
- (5) Bedding materials, feedstuff and livestock feeding equipment (excluding the movement from non-farms).

5 Exclusion from restriction

- (1) Shipping of domestic pigs in the movement restriction zone to slaughterhouse
 - (i) The prefecture may, in consultation with the Animal Health Division, allow shipping of domestic pigs from a farm located within the movement restriction zone that meets all of the following requirements, to slaughterhouses which is located in the movement restriction zone and has resumed operations according to X-3-(1).
 - a. The disease detection surveillance prescribed in XII-2-(1) herein has confirmed the farm to be negative.
 - b. The domestic pigs to be shipped or other domestic pigs reared in the said domestic pigs in the same premise had been confirmed to be negative by gene detection tests or fluorescent antibody method in the sample collected within 3 days prior to the date of shipping.
 - (ii) When any domestic pigs are to be transferred, the following measures shall be taken:
 - a. They shall be moved on the day they are slaughtered.
 - b. Before being transferred, the domestic pigs in the farm must be confirmed free of any clinical abnormalities.
 - c. Disinfect the entire surface of the carrier vehicle before and after loading.
 - d. Measures to prevent leakage of liquid is taken on cargo beds.
 - e. The carrier vehicle does not enter any related facilities, including other domestic pigs rearing units.
 - f. In principle, travelling near other farms is avoided, and transportation routes that are not used by other livestock-related vehicles are chosen.
 - g. After transport, immediately disinfect the vehicles and materials used.
 - h. Record the course of the transportation process and maintain a record of it.

[Note 65] Requirement for a farm shipping to slaughterhouse and the number of samples for gene detection tests and fluorescent antibody method

- 1 The farm shall submit the shipping plan and carry-in route (as a general rule, passage on any roads in the vicinity of other farms shall be avoided and transportation routes not used by other livestock-related vehicles shall be established.) to a LHSC.
- 2 On the day prior to shipment, owners shall check the total number of dead animals and health conditions (decrease in or loss of appetite, malaise, birth complications, stillbirth

and premature birth, pneumonia, their treatment statuses) during the past one week and check the condition and body temperatures of shipped pigs in the previous day. Additionally, 25 animals (if fewer than 25, all animals) should be selected for the gene detection test within three days prior to shipment and submit test results to a LHSC to obtain the shipment permit. Attachment 1 “Diagnosis Manual of CSF” shall be referred when conducting tests.

- 3 The health of the animals in the stall where the shipped domestic pigs are kept shall be checked and recorded and record stored. If no abnormalities are found, animals may be shipped. If abnormalities such as death, malaise or crouching emerge, the farm shall immediately notify the LHSC to receive necessary tests.
- 4 A power sprayer shall be installed to thoroughly disinfect a cargo bend and the entire vehicle before or after loading of domestic pigs, and carriage in entering and leaving the farm.
- 5 Any vehicle carrying the shipped domestic pigs shall go through a temporary disinfection point installed in the movement restriction zone in IX-1-(1) of the Guidelines and have the prefectural animal health inspector conduct a clinical test and confirm its disinfection status.

(2) Shipment of domestic pigs in the shipment restriction zone to a slaughterhouse

Prefectures can allow the farm in the shipment restriction zone to ship its domestic pigs to a slaughterhouse out of the shipment restriction zone, upon consultation with the Animal Health Division.

In this case, the prefectural animal health inspector shall conduct a clinical test and confirm the absence of abnormalities in domestic pigs before shipment and the carriers shall be sufficiently disinfected at the disinfection points before, after and during the shipment.

[Note 66] Measures to ship domestic pigs reared in the shipment restriction zone

When a competent prefectural livestock department allows a farm in shipment restriction zone to ship domestic pigs to a slaughterhouse outside the zone, the division shall provide the information on the shipment farm (shipper’s name and address and the number of domestic pigs) to the Public Health Department of the prefecture with jurisdiction over the slaughterhouse and the slaughterhouse by the previous day of the shipment.

The prefectural animal health inspector, who conducts a clinical test immediately before the shipment, shall issue a certificate showing no abnormality is found in the clinical test to a slaughterhouse, a shipment destination and instruct the shipper to submit the certificate to

the slaughterhouse when bringing in the shipped domestic pigs there.

(3) Shipment of domestic pigs outside the restriction zone to a slaughterhouse

Prefectures can allow farms outside the restriction zone to ship their domestic pigs to a slaughterhouse within movement restriction zone, which resumes operation according to X-3, without interposing other farms after consultation with the Animal Health Division.

In this case, the carriers shall be sufficiently disinfected at the disinfection points before, after and during the shipment.

(4) Movement of pig carcasses for disposal in the restriction zone

(i) Considering the infectious status or environmental effect, the prefecture may allow the farm in restriction zone to move their pig carcasses, manures, bedding materials, feedstock of the farm to the incineration facilities or other applicable places for the purpose of disposal by incineration, burial, rendering, or disinfection, upon consultation with the Animal Health Division, after the prefectural animal health inspector confirm the absence of abnormalities in domestic pigs at the farm.

(ii) The following measures shall be taken at the time of movement:

- a. The prefectural animal health inspector shall confirm the absence of abnormalities in domestic pigs at the farm before movement.
- b. As a general rule, an enclosed carrier vehicle or sealed containers shall be used. If neither is available, cover the floor and sides surfaces of the carrier vehicle with plastic sheets, and after loading the package, cover the upper part of the load with a plastic sheet as well, or take other measures necessary to prevent any load spillage.
- c. Disinfect the entire surface of the carrier vehicle before and after loading.
- d. In principle, avoid travelling near other farms, and choose transportation routes that are not used by other livestock- related vehicles.
- e. Avoid the delivery to multiple farms in a row.
- f. Fully disinfect the carrier vehicle at the disinfection points.
- g. During transport, carry a certificate confirming that the vehicle and its load are not subject to the prohibition or restriction prescribed in Article 32(1) of the Act and show the certificate to personnel in charge at the disinfection points.
- h. After transport, immediately disinfect the vehicle and materials used.
- i. Record the course of the transportation process and maintain a record of it.

(iii) The following measures shall be taken at the time of incineration, rendering processing or disinfection:

- a. Take measures such as spreading plastic sheets from the carrier vehicle to the location where carcasses are disposed of;
- b. Take measures such as separation of the locations for carcasses and product storage; and

- c. Disinfect the route from the entrance of the disposal facility to the location where carcasses are disposed of, immediately after their introduction into the incineration, rendering or disinfection process.

[Note 67] Certificate confirming that the vehicle and its load are not subject to restriction

A certificate confirming that the vehicle and its load are not subject to restriction, which is required to be shown to the personnel in charge at disinfection points, shall be documented on Appended Form 10.

(5) Movement of pig carcasses for disposal outside the restriction zone

The prefecture may, in consultation with the Animal Health Division, allow the farm outside restriction zone to move their pig carcasses to the incineration facilities located within the restriction zone for the purpose of incineration or rendering. In this case, the carrier vehicle shall not visit any farms located within the movement restriction zone and must be fully disinfected before and after transport, as well as at the disinfection points during transport, and must maintain compliance with the measures described in (4)-(iii) above.

(6) Passage of domestic animals outside movement restriction zone

If domestic animals of the farm outside movement restriction zone cannot be moved to a destination such as another farm and slaughterhouse outside movement restriction zone without traversing movement restriction zone or shipment restriction zone, the prefecture can allow a vehicle to traverse movement restriction zone or shipment restriction zone upon consultation with the Animal Health Division. In this case, the carrier vehicle shall be sufficiently disinfected at the disinfection points before, after and during the movement.

However, a movement of domestic pigs in the farm within the shipment restriction zone to outside of the zone is not allowed except the case for slaughtering.

X Restriction of events at facilities gathering livestock (Articles 26, 33 and 34 of the Act)

1 Restrictions within the movement restriction zone

- (1) The prefecture shall suspend the following businesses or events within the movement restriction zone upon a consultation with the Animal Health Division.
 - (i) Slaughtering domestic pigs in slaughterhouses
 - (ii) Events such livestock markets, where domestic pigs are gathered
 - (iii) Free range for domestic pigs
- (2) The prefecture shall order the owners of slaughterhouses, rendering facilities in the movement restriction zone to carry out necessary disinfection by setting a time limit, and shall have them install necessary disinfection facilities as necessary.

[Note 68] Period for disinfecting facilities gathering livestock

In principle, the period should be based on the lifting of the movement restriction zone.

2 Restriction within the shipment restriction zones

The prefecture shall suspend holding the event(s) to gather domestic pigs, which is held in the shipment restriction zone, including livestock markets, upon consultation with the Animal Health Division.

3 Resumption of slaughterhouses

(1) Requirements for resumption

As for slaughterhouses in the movement restriction zone, if they satisfy all of the following requirements, the prefecture can allow them to resume operations based on a consultation with the Animal Health Division. In the cases where an outbreak of CSF occurs in the slaughterhouse, disinfection inside the slaughterhouse must be completed in addition to these requirements.

- (i) Vehicle disinfection equipment has been installed.
 - (ii) The facilities receiving live animals shall be clearly distinguished from other areas in the facilities.
 - (iii) Regular cleaning and disinfection are conducted.
 - (iv) Biosecurity manuals are appropriately prepared and referenced/used by employees.
 - (v) A system shall be in place to comply with the provisions described in (2) below.
- (2) Matters to be observed after resumption of operations
- (i) After the resumption of operations, the facility shall be thoroughly managed so that following requirements are strictly observed: (i) Those entering the facility must wear dedicated outerwear, boots, head cover or gloves.
 - (ii) Vehicles are thoroughly disinfected both going into and out of the facility.

- (iii) Animal deliveries are to individual farms only with no stops made at multiple farms.
- (iv) In the case of carrying in domestic pigs from a farm located within the movement restriction zone, adjustment shall be made so that no carrying-in vehicles from other farms are present at the slaughterhouses during the carrying-in operation, and the facilities receiving live domestic pigs site shall be disinfected before and after carrying in the relevant domestic pigs
- (v) If domestic pigs are carried in from a farm in movement restriction zones, these pigs shall be carried in at the end of the day and be slaughtered and dressed within the day of being carried in;
- (vi) If it is determined that carried-in domestic pigs are unsuitable for slaughter and dressing pursuant to the Slaughterhouse Act (No. 114 of 1953), they shall not be returned to the farm but promptly disposed;
- (vii) Domestic pigs delivered shall be grouped according to farm of origin and managed separately.
- (viii) Delivery and shipment of domestic pigs and pork products shall be recorded and the record stored.

[Note 69] Matters related to events without gathering domestic pigs

Since it is possible to prevent the spread of CSF by thoroughly disinfecting areas around the affected farm, prefectures shall announce that such events will be approved so long as proper disinfection procedures are followed as necessary. In addition, the prefecture will instruct to ensure that those who participate in events, from affected areas of CSF are not subjected to unfair treatment such as restrictions on their participation.

XI Installation of disinfection points (Article 28-2 of the Act)

1 The prefecture shall, after having been notified of any domestic pigs confirmed as being a affected pig or suspected affected pig as per the provisions of V-2 herein, promptly install disinfection points in collaboration with the municipalities, competent police department, road administrator, with emphasis on the prevention of spreading the infection to areas around the affected farm as well as outside the movement and shipment restriction zones.

2 As for the concrete locations of disinfection points, neighborhood of the affected farm (within 1 km radius from the farm), the border of the restriction zone shall be selected in consideration of the following criteria. Additionally, the location shall be revised according to the expansion or reduction of the restriction zone.

- (1) Status of the road system
- (2) Traffic of general vehicles
- (3) Traffic of livestock-related vehicles
- (4) Topography of the area, such as mountains or rivers

3 In constructing disinfection points, facility structures shall be designed to enable effective disinfection of not only vehicles related to livestock industry or quarantine, but also general vehicles so that the spread of viruses by vehicles can be completely prevented.

Vehicles related to livestock industry or quarantine in particular shall be instructed to drive through to the points for especially thorough treatment including disinfection of the drivers' clothing and the interior of the vehicles.

In addition, the prefecture shall take measures to prevent cross-contamination between vehicles at the disinfection points, such as setting up multiple disinfection points at each location, if necessary, paying attention to the location of entrance/exit or traffic flow.

[Note 70] Items regarding vehicle disinfection

The prefecture shall pay attention to the following matters when disinfecting vehicles:

1 Disinfection at the disinfection points

- (1) Locations of disinfection points

In the discussion of where to place disinfection points, in addition to conferring with police superintendents and road administrators, the effect on the residential environment or agriculture shall be sufficiently considered.

- (2) Records of disinfection

If vehicles are processed through disinfection points, a certificate shall be issued as confirmation at destination points. In addition to instructing drivers be in possession of their certificates while on the road, the prefecture shall record and store copies of them so that processed vehicles can be identified.

2 Disinfection procedures at the disinfection points

Disinfection methods at disinfection points, shall be done by wheel dip or vehicle disinfectant mat on the road, or by guiding automobiles into open space such as a parking lot and applying disinfection by power sprayers, and with consideration to the location characteristics. Additionally, personnel for guiding drivers to the disinfection point and those performing disinfection shall be separately arranged.

(1) Vehicles related to livestock

As for the disinfection of vehicles, cationic soap or slaked lime, which are not irritating to the body, shall be used. The entire vehicle shall be disinfected after the mud are removed by power sprayer with focus on wheels and tires. Drivers' seats and cargo beds shall be disinfected by wiping. In these cases, care shall be taken not to leave any point, such as movable parts undisinfected, Hands and shoe soles of drivers shall be also thoroughly disinfected.

(2) General vehicles

At least, drive through wheel dip or disinfectant mats shall be implemented. In these cases, disinfectants shall be regularly replaced so that sufficient effectiveness may be maintained.

3 Period for disinfection point operation

In principle, disinfection points are generally operated until the movement restrictions are lifted from the area.

4 Provision of accurate information and instructions

Prefectures other than the affected prefecture shall supply precise information and appropriate instructions so that vehicles from the affected prefecture may not be restricted from entering other prefectures after the appropriate disinfection.

[Note 71] Thorough disinfection of the neighborhood of the affected farm

In order to thoroughly disinfect the surroundings of the affected farm, holistic disinfection of overall area with motorized sprinklers shall be discussed as necessary in addition to the setting of disinfection points.

XII Confirmation of the status of virus spread

1 Epidemiological investigation

(1) Method of epidemiological investigation

The prefecture shall conduct epidemiological investigations to identify possibly infected animals with CSFV (hereinafter referred to as “epidemiology-related domestic animals”) by collecting epidemiological information and confirming the movement of people and vehicles to and from of affected farms, as provided in IV-3-(2) herein.

(2) Epidemiology-related domestic animals

The domestic pigs to which the following (i) to (iv) apply as a result of the investigation in (1) shall be determined as epidemiology-related domestic animals upon consultation with the Animal Health Division and the prefecture shall immediately confirm abnormalities among those pigs, including the existence or the absence of specific symptoms, by on-site inspection or hearing (excluding the case where they are included in movement restriction zones).

A necessary test shall be conducted after 28 days elapsed since the day when they contacted or may have contacted or cross-contaminated to the affected pigs or suspected affected pigs.

The prefecture shall instruct owners of farms that rear epidemiology-related domestic animals to thoroughly observe health every day and request them to report the number of deaths among domestic pigs until they are confirmed negative in the test mentioned above pursuant to the provision of Article 52 of the Act.

- (i) Domestic pigs that were in contact with affected pigs within 11 to 28 days prior to the confirmation date of disease;
- (ii) Domestic pigs that were in contact with suspected affected animals (limiting to those showing clinical symptoms) within 11 to 28 days prior to the confirmation date of disease;
- (iii) Domestic pigs that are reared at a farm where suspected affected animals that are provided in V-2-(2)-(iv) through (vi);
- (iv) Other domestic pigs in the farm rearing those with high risk to be suspected affected pigs due to the implementation of disinfection for personnel, materials or vehicles in the following cases;
 - personnel, materials or vehicles have visited the biosecurity areas of the affected farm within 28 days prior to the confirmation date of disease, and then, and have visited the biosecurity areas of other farms within seven days after visiting the affected farm
 - domestic pigs or vehicles in other farms is likely to be cross-contaminated at slaughterhouses with those from the affected farm

(3) Movement restriction measures in farms raising epidemiology-related domestic animals

In a farm that rears epidemiology-related domestic animals, the movement of

following items shall be restricted after such determination pursuant to (2) until the confirming negative test results pursuant to (2) according to the provision of Article 32 of the Act. In addition, the entry of persons other than the relevant persons into the farm shall be restricted:

- (i) live domestic pigs;
- (ii) semen and embryo (excluding those which were collected before the 21st day prior to the diagnosis confirmation and which were separately managed);
- (iii) carcasses of domestic pigs;
- (iv) manure of domestic pigs; and
- (v) bedding materials, feedstuff and livestock feeding equipment.

(4) Exception for restriction

If proper measures are taken to prevent the spread even in a case subject to the movement restriction in (3), the objects above can be moved to a certain place upon consultation with the Animal Health Division.

[Note 72] Matters regarding epidemiological investigations

- 1 The prefecture shall conduct a wide range of investigations of factors that may contribute to the CSFV transmission, including: movement of domestic animals, persons, goods, and vehicles in and out of the farm; movement history of the farm's employees; and visitors from outside the farm (including movement history after the farm visit).
- 2 In order for smooth collection of information at the time of epidemiological investigations, the prefecture shall instruct the farm owners, related business operators, and other relevant parties to always have information on traffic of people, goods and vehicles into/out of farms readily available.
- 3 If the subjects of investigation include any site(s) located outside of the affected prefecture, the competent prefectural livestock department of the affected prefecture shall notify the Animal Health Division and their counterpart in that (those) prefecture(s). Upon notification, the competent prefectural livestock department therein shall conduct investigations in the same manner as in the affected prefecture.
- 4 The prefecture shall conduct on-site inspections and request submission of reports as per the provisions in Article 51, Paragraph 1 and Article 52, Paragraph 1 of the Act. In requesting reports, the prefecture shall require the following minimum items from farms. If other necessary items are found, additional reports shall be requested as appropriate:

- (1) The existence/absence of specific symptoms
- (2) Number of dead pigs. If any, (i) Location of the dead pig (name of the premise and location of stall), (ii) Animal's age in days (or body weight), (iii) Likely cause of death
- (3) Number of stillborn piglets
- (4) Number of live born piglets
- (5) Number of sows that had abnormal production
- (6) Number of domestic pigs shipped from the farm;
- (7) Number of domestic pigs introduced to the farm; and
- (8) Clinical findings of domestic pigs reared with the dead ones

[Note 73] Items included in the epidemiological investigation

To review the infection routes of the CSF from all sides, in principle, all outbreak cases shall be investigated as follows by hearing from relevant parties to collect epidemiological information.

1 Subjects of investigation

- (1) Affected farm
- (2) Farms and livestock-related facilities which have epidemiologically-related domestic animals to the affected farm (such as livestock market, slaughterhouse, feedstuff/bedding materials factories and customers, Japan Agricultural Cooperatives)

2 Items of investigation

- (1) Environment surrounding the farm (woods, fields, residence, the distance from a road, the existence or absence of surrounding farms and information about the conditions of rats to the extent possible);
- (2) Temperature, moisture, weather, wind speed and direction
- (3) Movement of livestock carrier vehicles, feed carrier vehicles, carcass collection vehicles and compost carrier vehicles, other vehicles equipment, or transported objects including semen and embryo;
- (4) Movement of farmers, farm employee, veterinarian, livestock artificial inseminators, domestic animal merchant, feedstuff supplier, bedding material supplier, material supplier, drug supplier, related parties in the livestock industry (Japan Agricultural Cooperatives' employees), post-office worker, delivery company, family, acquaintance (including their records of overseas travel and the existence or absence of contact with wild animals);
- (5) Whether there is any free-range (if there is, the period and the place);
- (6) The distribution of wild boars and the existence or absence of their entry to the farm and contact opportunities;
- (7) Structures of premises and accessory facilities and measures to prevent the entry of

wild animals;

- (8) The existence or absence of sharing of farming machines; and
- (9) The existence or absence of use of livestock materials introduced from an affected country

[Note 74] Exception for restriction

1 Shipment directly to slaughterhouses

Only when it can be confirmed whether the farm meets the following requirements, their domestic pigs can be moved to a slaughterhouse upon consultation with the Animal Health Division:

- (1) The owner shall submit the shipment plan for 1 month (as a general rule) to a LHSC in advance. If the plan is changed, he/she shall immediately report to the center.
- (2) The administrative veterinarian or the pig owner shall continue clinical check for about one week (in general) before shipment, and he/she shall also measure the body temperatures of all domestic pigs to be shipped and reconfirm clinical signs on the morning of a day preceding shipment. He/she shall report the results with daily report to a LHSC.
- (3) A LHSC shall confirm the existence or absence of fever, clinical signs reported in (2)
- (4) If CSF cannot be denied, such as multiple domestic pigs among the shipped group are recognized to have a fever of 40 degrees or higher in (3), the center shall enter the farm, collect samples and conduct a further test (blood and gene detection tests). In addition, as required, the center shall send samples to NIAH upon consultation with the Animal Health Division.
- (5) If no abnormality is found in (3), the center shall notify the owner of a shipment permission.
- (6) The LHSC shall confirm in advance that a slaughterhouse properly takes measures to prevent the virus from intruding and spreading.

2 Movement to another farm

Only when it can be confirmed whether the farm meets the following requirements, those items can be moved to another farm upon consultation with the Animal Health Division:

[Movement of live piglets and sows to other farms]

- (1) The owner shall submit the shipment plan for 1 month (as general) to a LHSC in advance.
- (2) The movement shall be within a prefecture in principle, but they may be moved outside upon a consultation with the prefecture of acceptance.
- (3) As a general rule, all moved domestic pigs shall be confirmed negative via a gene

detection test.

- (4) A follow-up monitoring of at least 21 days is conducted at a destination farm. During the time, the domestic pigs shall be segregated whenever possible.

[Moving semen or embryo to other farms]

- (1) If they are stored, segregated management (*) shall be implemented at a storage area.
- (2) The movement shall be within a prefecture in principle, but they may be moved outside upon a consultation with the prefecture of acceptance.
- (3) (i) Semen:

In principle, the animals are checked for anomalies after sperm is collected and the gene detection test is conducted and confirmed negative. Additionally, no semen shall be supplied until the test result is known. Additionally, sperm collected shall be managed separately from sperm already managed in segments until the test result is known.

However, only if blood sampling is problematic, the collected sperm can be used in gene detection tests and shall be confirmed negative.

- (ii) Embryo:

In principle, the animals are checked for anomalies after embryo is collected and the gene detection test is conducted and confirmed negative. Additionally, embryos shall be managed separately from embryos already managed in segments until the test result is known.

* Segregated management: a management method avoiding any intersection with polluted or potentially polluted objects. In entering a place under segregated management, persons shall wear dedicated clothes and thoroughly disinfect hands and fingers to avoid bringing in any pathogens. In addition, tools and equipment to be used at a work shall be disinfected without fail or sterilized ones shall be used.

3 Movement of carcasses, manure, bedding materials, feedstuff and livestock feeding equipment

Only when it can be confirmed that the following requirements are met at a farm where the prefectural animal health inspector has confirmed reared domestic pigs have no clinical abnormalities, is it possible to move domestic pig carcasses, manure, bedding materials, feedstuff and livestock feeding equipment to incineration facilities and other necessary facilities for incineration, burial, rendering, composting or disinfection, after a consultation with the Animal Health Division.

- (1) Measures at the time of movement

- (i) The prefectural animal health inspector shall confirm the absence of

abnormalities in the domestic animals in the relevant farm on the day of movement or the previous night, by the daily report.

- (ii) The prefectural animal health inspector shall instruct the use of enclosed carrier vehicles or sealed containers as a general rule. If neither is available, cover the floor and side surfaces of carrier vehicle with plastic sheets and, after loading the package, cover the upper part of load with a plastic sheet as well, or take other measures necessary to prevent any load spillage.
 - (iii) Disinfect the entire surface of the carrier vehicle before and after loading. In addition, the prefectural animal health inspector shall confirm the status of disinfection whenever possible.
 - (iv) In principle, avoid travelling near other farms, and choose transportation routes that are not used by other livestock-related vehicles.
 - (v) Avoid delivery to multiple farms in a row.
 - (vi) After transport, immediately disinfect the vehicle and materials used.
 - (vii) Record the course of the transportation process and maintain a record of its.
- (2) Measures at the time of incineration, rendering processing or disinfection.
- (i) Take measures such as spreading plastic sheets from the carrier vehicle to the location where carcasses are disposed of;
 - (ii) Take measures such as separation of the locations for carcasses and product storage;
 - (iii) Disinfect the route from the entrance of the disposal facility to the location where carcasses are disposed of, immediately after their introduction into the incineration, rendering or disinfection process; and
 - (iv) Disinfect livestock feeding equipment by an appropriate disinfection method. In addition, a prefectural animal health inspector should confirm the status of disinfection whenever possible.

[Note 75] Test to lift the movement restriction in farms raising epidemiology-related domestic animals

1. Prefectures should conduct an on-site inspection after at least 28 days have elapsed since the last contact with affected animals or suspected affected animals and confirm the existence/absence of specific symptoms.
- 2 In the on-site inspection described in 1, the following matters shall be confirmed:
 - (1) Serum antibody test (ELISA) shall be conducted, and resulted in negative;
 - (2) Body temperature and number of white blood cells shall be checked. A gene detection test shall be conducted for an individual with a body temperature of 40 °C or higher or a white blood cell count less than 10 thousand/ μ L leukocytes, resulted in negative;

- (3) In conduction of test in (1) and (2) above, at least 30 pigs in total (5 pigs from each premise) shall be randomly sampled (as the sample size necessary to detect 10 % prevalence with 95% confidence level; if the total is less than 30, all of them shall be sampled), based on the previous consultation with the Animal Health Division in advance.

2 Inspection of nearby farms within the restriction zone

(1) Disease detection surveillance

When the CSF outbreak is confirmed, the prefecture shall enter farms (exclusive to farms rearing at least six animals) within movement restriction zone and conduct the following tests within 24 hours as a general rule:

(i) Clinical test

They shall enter farms (exclusive to farms rearing at least six animals) within movement restriction zone to confirm the existence or absence of clinical signs set forth in IV-2.

(ii) Blood test, antigen test, and serum antibody test

When (i) is done, blood tests (measurement of white blood cell count and confirmation of shift to the left of the neutrophils nucleus), antigen tests (gene detection tests; fluorescent antibody method of tonsils for dead animals) and serum antigen tests (ELISA) are conducted for a certain number of animals.

(2) Freedom confirmation surveillance

In order to confirm disease freedom within the movement restriction zone, the same inspection as prescribed in (1) above shall be performed after the date of 17 days since the completion of control measures in all affected farms located within the movement restriction zone.

[Note 76] Test method and sample size for Disease detection surveillance and Freedom confirmation surveillance

The sample size for each test in the both surveillances shall be determined, upon a consultant with the Animal Health Division, at least 30 pigs in a farm (at least 5 pigs in each premise) as those necessary to detect 10% prevalence with 95% confidence level. If there are more than one premise, samples shall be collected from all of them. Additionally, samples shall be collected from abnormal pigs and if they are not recognized, samples should be randomly collected from healthy animals. Attachment 1 the “Diagnosis Manual of CSF” shall be referred to when conducting tests.

[Note 77] Exception from Disease detection surveillance

In the case where multiple cases are confirmed in dense pig-farming area and the

control measures and epidemiological investigation becomes difficult, additional tests for the disease detection surveillance specified in XII-2-(1) of the Guidelines may be skipped for farms where these tests for the previous cases have resulted in negative and absence of abnormalities among domestic pigs is reported, upon a consultation with the Animal Health Division as well as in light of the opinions of such experts as the commissioner of the subcommittee.

3 Response to abnormal findings or positive results from tests in 1-(2) or 2 above

- (1) If abnormalities or positive results are found in the test in 1-(2) or 2, the prefecture shall immediately take the following measures:
 - (i) In case when positive results are found in the test in 1-(2):

The prefecture shall implement measures in IV-6-(2)(i) and report the test results in 1-(2) and results of the test implemented in measurements of IV-6-(2)(i) (if the genetic analysis test has been completed, the results) to the Animal Health Division.
 - (ii) In case when abnormalities or positive results are found in the test in 2:

Pursuant to IV-5-(2), the farm shall send the necessary samples to NIAH and report to the Animal Health Division.
- (2) MAFF shall immediately take the following measures in receiving a report in (1) from a prefecture:
 - (i) MAFF shall confirm diagnosis prescribed in V based on the test results in 1-(2) or 2
 - (ii) MAFF shall quickly revise the Guidelines or formulate the Emergency Guidelines if necessary, based on the result of the tests in 1-(2) or 2 and the result of the appraisal of V-2 done in (i).

4 Matters to be observed by inspectors

Inspectors performing the investigation and the inspection described in 1 and 2, respectively, shall comply with the following requirements:

- (1) In conducting the investigation or inspection, inspectors who engaged in control measures at the affected farm shall not enter the farms for 7- day period after completion of the task therein. However, this period may be reduced to 3 days if appropriate biosecurity practices were confirmed to be in place at the affected farm while the inspectors were on duty and during departure.
- (2) They shall place vehicles outside the biosecurity area and enter the premise in infection protective clothes.
- (3) When leaving the farm, they shall disinfect themselves, their clothes, footwear, goggles and other belongings as well as vehicles used.
- (4) After arriving home, they shall take a bath and wash themselves thoroughly.
- (5) In the case where any abnormality or positive results have been confirmed from testing domestic pigs in 1-(2) or 2 on the farm in which the inspectors conducted an

on-site investigation, the inspectors shall not enter other farms until the domestic pigs on the investigated farm are confirmed to be affected pigs nor suspected affected pigs.

5 Confirmation of the compliance to Biosecurity Standards (Article 34-2 of the Act)

- (1) In a case of having been notified of any domestic pigs confirmed as being affected pigs or suspected affected pigs as per the provisions of V-2 herein, the prefecture shall confirm the status of compliance with Biosecurity Standards on farm in and around restriction zone, through the results of on-site inspections, the most recent investigation on the status of compliance, and the instruction record on biosecurity management in accordance with I-3-(2) .
- (2) In the case when, as a result of (1) above, recognizing that the following items in Biosecurity Standards are not being complied with by the owners of domestic pigs, and that CSF is highly likely to spread unless the situation is not improved immediately, the prefecture shall recommend the pig owners in problem to improve by setting time limits and issuing documents specifying the matters to improve, in accordance with the Biosecurity Instruction Plan:
 - (i) Items regarding methods to prevent the spread of contamination with infectious disease pathogens in domestic animals within the biosecurity area
 - (ii) Items regarding methods of preventing infectious disease pathogens of domestic animals from spreading outside the biosecurity area
- (3) In the event that the owner who has received the recommendation set forth in (2) above fails to comply with the said recommendation, the prefecture shall order the owner to take measures pertaining to the Biosecurity Instruction Plan by setting a time limit and issuing a document specifying the matters to improve

6 Infection confirmation test on wild boars

In a case of having been notified of any domestic pigs confirmed as being affected pigs or suspected affected pigs as per the provisions of V-2 herein, the prefecture shall conduct disease detection surveillance among on wild boars in the neighborhood of the affected farm.

[Note 78] Disease detection surveillance on wild boars

The prefecture shall, based on the consultation with the Animal Health Division, continue gene detection tests on wild boars that died or were captured by the hunting clubs within a 10 km radius from the affected farm for at least 28 days in principle. Sampling shall be actively executed within a 3 km radius from the affected farm. Additionally, ELISA assays shall be conducted with blood serum whenever possible. Even if the real-time PCR test is negative, the circumstances of death or dissection strongly suggest CSF, PCR tests are conducted upon a consultation with the Animal Health Division.

The prefecture shall request the parties, including hunting clubs, to notify the department and to cooperate by taking samples from the animals in case they encounter dead wild boars or capture live ones.

Depending on the status of preventive vaccinations, the implementation period of at least 28 days can be shortened upon a consultation with the Animal Health Division.

XIII Emergency Vaccination (Article 31-1 of the Act)

1 The CSF vaccination can prevent development when properly conducted, but unplanned and unregulated vaccination may disrupt early detection and cause negative effect on prevention of virus spread or confirmation of free status since it may mask affected animals.

Therefore, the use of vaccine requires careful judgment. Japan's basic control measures against CSF is early detection and prompt stamping-out of affected or suspected affected animals and preventive vaccination will not be conducted in principle.

2 When MAFF finds it difficult to prevent virus spread by stamping-out at the affected farms and movement restriction around the area alone , the MAFF shall decide to implement emergency vaccination to achieve containment of these diseases (precautionary culling to prevent the spreading of CSF is not approved by law).

- (1) State of progress with regard to the control measures, including burial
- (2) Spread of infection (the number of epidemiologically related farms)
- (3) Environmental factors (i.e., habitat status of wild boars, number of farms in the neighborhood, stocking density of domestic pigs, or geographical circumstances including presence/absence of mountains and rivers)

3 The MAFF shall, in the case when it is decided to implement emergency vaccination, immediately formulate and publish Emergency Biosecurity Guidelines on the following matters:

- (1) Timing of implementation
- (2) Implementation area
- (3) Targeted domestic animals
- (4) Other required matters (i.e., placement of unvaccinated pigs for the purpose of monitoring CSF occurrence, movement restriction targets)

4 The prefecture shall, on the basis of the Emergency Biosecurity Guidelines, swiftly implement emergency vaccination. In this case, the MAFF shall arrange a necessary and sufficient quantity of vaccines and equipment to the relevant prefectures.

5 The MAFF shall further proceed with research and investigation of the development and utilization of vaccines.

[Note 79] Receipt and usage report of vaccines for emergency vaccination

When prefecture receives vaccines for emergency vaccination, they shall issue a receipt using Appended Form 11. Additionally, when the use of the vaccine is completed, they shall file a report using Appended Form 12 to the Director of Food Safety and Consumer Affairs Bureau, MAFF.

[Note 80] Handling of vaccines for emergency vaccination

Handling of vaccines for emergency vaccination are as follows:

- 1 Vaccination shall be implemented promptly and systematically as per the provisions of Article 31 of the Act, starting from the outermost areas of the target region towards the affected farm, as a rule.
- 2 Prescribed dosage and administration shall be complied with for vaccination. Any injection injury shall be reported to the Animal Health Division to obtain instructions.
- 3 Unopened vaccines shall be returned upon a consultation with the Animal Health Division. Opened or expired vaccines shall be incinerated or otherwise disposed of in an appropriate manner.
- 4 All domestic pigs reared at the same farm or premise shall be vaccinated. In vaccination, replacing injection needles at least after vaccinating one stall, changing or sterilizing quarantine clothes or other measures to prevent the CSF spread shall be taken.
- 5 Vaccination shall be promptly implemented, and vaccinated pigs shall be spray marked to avoid oversights. After that, piglets from vaccinated pigs moved from the farm shall be positively tagged with ear marks

XIV Reintroduction of domestic animals

The prefecture shall conduct on-site inspections and confirm the status of cleaning, disinfection or compliance with the Biosecurity Standards in the affected farms planning to reintroduce domestic pigs, within one month before the first day that the introduction is scheduled. After confirming these status the prefecture shall instruct the farm to introduce domestic pigs to confirm the free status (hereinafter referred to as “monitor pig”). In this case, the prefecture shall instruct the farm to conduct daily clinical observations on their animals after re-introduction and to immediately notify a LHSC if any anomalies are detected.

If the farm introduces the monitor pigs, the prefecture shall conduct an on-site inspection at the farm and implement a clinical test and genetic test on introduced monitor pig after two weeks since introduction.

In addition, monitoring on the farm shall be continued for at least three months after lifting the movement restriction zone, by periodical on-site inspection and clinical check.

[Note 81] Requirement for the re-introduction of domestic pigs

When any affected farms plan to re-introduce domestic pigs, prefectural animal health inspectors shall enter the farm and check the followings:

- 1 The inside of the farm has been disinfected at least three times in one-week intervals (including in finishing the control measure) after slaughtering.
- 2 The process necessary to inactivate the CSF virus contained in farm feedstuff, manure has been completed.
- 3 The farm has established their operation which comply with the Biosecurity Standards.

[Note 82] Re-introduction of domestic pigs outside the vaccinated area

When farms outside the vaccinated area re-introduces domestic pigs, the following measures shall be taken:

- 1 The prefecture shall guide the farm to introduce 30 or more monitor pigs in each premise. They shall be arranged so that there are no deviations among stalls upon a consultation with the Animal Health Division.
- 2 The prefecture shall enter all premise 14 days after introduction of monitor pigs and conduct clinical test and gene detection tests on the monitor pigs.

Even if the monitor pigs test positive in these inspections, it will not be treated as an occurrence of the disease. If the test result is positive, all monitor pigs shall be slaughtered and the inside of the farm shall be cleaned and disinfected again.

- 3 After confirming that the monitor pigs are negative, prefectural animal health inspectors shall instruct the farms that accepted monitor pigs, to gradually introduce

more animals. Additionally, after the introduction, they shall periodically check the state of compliance to the Biosecurity Standards and instruct them as necessary.

4 For the re-introduction of domestic pigs, the prefecture shall prepare for the response to the occurrence.

[Note 83] Re-introduction of domestic pigs in the vaccinated area

When farms in the vaccinated area re-introduce domestic pigs, vaccinated pigs shall be introduced in principle. If unvaccinated animals are introduced, they shall be vaccinated immediately upon introduction.

Since vaccinated pigs cannot be a monitor pig to confirm its free status, following environmental audit shall be implemented before introducing pigs:

1 Method of implementing environmental audit

(1) Where to take samples

- (i) Premise (pig stall, floor, feeding vessel, water vessel, fence, fan, ditch)
- (ii) Compost facility
- (iii) Feedstuff storage, feedstuff
- (iv) Carcass storage
- (v) Tools necessary during feeding, such as footwear, wheelbarrows for carrying feedstuff or feces, handgrips, baskets for moving domestic pigs between pigsties and scoopers to collect animal waste and feces from wild animals such as rats.

(2) The number of samples

10 points per premise (50 points for the positive premise, since sample shall be intensively taken) and about 50 points in other places (compost facility)

(3) Testing methods

- (i) Wipe the sample area with gauze soaked in PBS, and conduct the gene detection test.
- (ii) Sampling shall be done immediately before domestic pigs are introduced and disinfecting agents such as slacked lime shall be avoided to drop into the sample.
- (iii) The used gauze shall be suspended in PBS in a centrifuge tube and genes for gene detection tests extracted from the PBS.

(4) Gene detection tests shall be conducted to pooled samples. Pooled samples that are diagnosed positive shall be inspected in individual PCR tests.

(5) Samples with positive results in individual gene detection tests shall be provided for virus isolation to check its infectivity.

2 Actions to take in case environmental audit results are positive

If the virus isolation results in positive in the environmental audit, the inside of the farm, mainly around the point of positive diagnosis, shall be disinfected. After the disinfection is complete, an environmental audit shall be conducted again, to confirm

the free status of the farm.

3 Prefectural animal health inspectors shall periodically check the state of compliance to the Biosecurity Standards, instruct them as necessary and prepare for the response to the occurrence.

XV Identification of the cause of the outbreak

- 1 In case of having been confirmed as being affected pigs or suspected affected pigs per the provisions of V-2 herein, the MAFF and the prefecture shall collect epidemiological information for the affected farm and engage in exhaustive research for entrance and exit of domestic pigs, persons (individuals in contact with the animals, such as farm workers, veterinarians artificial inseminators, local government officers) and vehicles (livestock or feed carriers, carcass collection vehicles, compost carriers), feed supply conditions (including feed residue), records of overseas travel of related persons, movement of objects, and surroundings, in collaboration with pertinent organizations such as the NIAH.

- 2 The epidemiological investigation team consisting of relevant experts, such as Subcommittee commissioners, shall provide required instructions and advice to help with prompt and accurate implementation of the investigation described in 1 above, and analyze investigation results for possible causes of outbreak, organize the information, and come up with a conclusion.

Section 2 Control measures for wild boars

XVI Countermeasures in case infection is suspected

1 Response to case in which infection by CSFV is suspected

If a CSFV infection is suspected among wild boars during an investigation of wild boars in III-1-4 or infection confirmation tests in XII-6, the prefecture shall immediately report it to the Animal Health Division and thoroughly disinfect the area inhabited by the wild boars (hereinafter referred to as “suspect affected wild boars” in 2) and proceed with the preparation of 2.

Additionally, according to IV-5-(2), based on the consultation with Animal Health Division, they shall simultaneously send the required samples to the NIAH.

2 Preparation for cases in which the diagnosis is positive

After they send required samples to NIAH as per 1, the prefecture shall take the following measures and report the procedure to the Animal Health Division until the result of the gene analysis in 3 conducted by NIAH is obtained.

- (1) Checking the number of farms and of domestic pigs in an area within a 10 km radius of the point where the suspected affected wild boars were identified.
- (2) Checking personnel and material necessary for control measures such as slaughtering domestic pigs, (including the necessity of staff support from the government or other prefectures) in case CSF occurs in farms in the neighborhood of the area in which suspected affected wild boars were identified.
- (3) Confirming the allocation status of burial sites or incineration facilities (including the use of large-scale quarantine material owned by the MAFF) in farms around the area where suspected affected wild boars were identified.
- (4) Selection of the locations to install disinfection points, as necessary.
- (5) Notification to municipalities where suspected affected wild boars were identified, neighborhood prefectures, and related organizations.
- (6) Necessary instruction such as a voluntary ban on moving live domestic pigs or carcasses within a 10 km radius of the point where the suspected affected wild boars were identified.
- (7) Confirmation of the system to prevent an epidemic from spreading among wild or domestic animals in the area of the point where suspected infected wild boars were identified.

3 Inspection by NIAH

When the prefecture sends samples to the NIAH through the procedure in 1, the NIAH shall conduct the necessary tests, including genetic analysis, and report the results to the Animal Health Division.

[Note 84] Shipment of samples

Note 38 shall be applied.

XVII Confirmation of diagnosis

The MAFF shall confirm the diagnosis through the result of gene detection tests by the prefecture and genic analyses by the NIAH, when required samples were sent to NIAH as per XVI-1 (including other cases in which Animal Health Division judges necessary). However, in case where the suspected wild boars were found in the area where other affected wild boars had been confirmed, the MAFF can confirm the diagnosis without waiting for the NIAH's test results. In this case, the results shall be reported to the competent prefectural livestock department via the Animal Health Division.

XVIII Response to the diagnosis

1 Notification to the concerned parties

- (1) When the prefecture is notified that CSF diagnosis is positive in wild boars according to XVII, they shall immediately report the information and location where the wild boars were recognized to the following parties via phone, FAX, or e-mail.
 - (i) Owners and biosecurity managers of domestic pigs in the prefecture
 - (ii) The municipalities in the prefecture
 - (iii) Veterinary medical associations, producer and farmer groups, and other related organizations in the prefecture
 - (iv) Local police, the Self-Defense Forces and other related organizations in the prefecture
 - (v) Adjacent prefectures

[Note 85] Notification to related parties of measures for wild boars

When CSF diagnosis is positive in wild boars according to XVII of the Guidelines, the Animal Health Division shall notify the Wildlife Division of Nature Conservation Bureau, MOE and the competent Livestock Health Department of prefectures including the area within a 10-km radius of the affected point. The notified competent Livestock Health Department shall notify related sections including those for Wild Animals Damage Prevention Office (MAFF) and Office for Wildlife Management (MOE) in the prefecture, municipalities and related parties such as hunting clubs.

[Note 86] Reporting to related parties and the press in case affected wild boars continue to be confirmed

When CSFV positive wild boars are continuously found in the prefecture, the prefecture can supply information displaying inspection results on maps instead of those specified in XVIII-1 and 3, upon the confirmed status of affected wild boars.

- (2) When providing information according to (1) above, the prefecture shall explain to the information recipients that information is share only for the purpose to prevent an CSV from spreading, and provide necessary instruction not to use the information for other purposes or not to leak it. In this instruction by prefectures, posting the information to web-site shall be strictly prohibited due to the risk to be widely spread.
- (3) When the prefecture is notified that CSF diagnosis is positive in wild boars according to XVII, they shall notify the parties specified in XVI- 2-(5) and (6).

2 Establishment of a Response Headquarters and cooperation among the government and the prefecture

- (1) After confirming affected wild boars, the MAFF shall immediately organize a

Response Headquarter, and develop the control policy. The Headquarter can be organized before confirmation if it is specifically necessary.

- (2) In collaboration with the NIAH, NLBC or other related organizations, the MAFF shall dispatch the following staff to the prefecture in which an outbreak occurred as necessary.
 - (i) Staff who can appropriately communicate the control policy specified in (1) above to prefectures and make arrangements for the Government and the prefecture to promote close cooperation.
 - (ii) Experts in epidemiology or wild boars, who can accurately grasp the infectious status so that the control policy can be revised (and the Emergency Guidelines can be developed) timely and appropriately.
- (3) Immediately after being notified of a confirmation of affected wild boars, the prefecture shall organize a Prefectural Headquarter in order to smoothly implement the concrete control measures in line with the control policy specified in (1) above. The Prefectural Headquarter can be organized before the confirmation if it is specifically necessary for prompt and appropriate disease controls.
- (4) The prefecture should define each role for disease control, procurement, epidemiological investigation, public relations or cash management in the Prefectural Headquarter so that the Prefectural Headquarter can smoothly and sufficiently fulfill its roles and functions.
- (5) Staff dispatched from the MAFF as specified in (2)(i) shall attend the Prefectural Headquarter, communicate the control policy specified in (1), and make necessary arrangement.
- (6) In order to implement smooth and appropriate control measures, the Prefectural Headquarter shall establish a regime for communication with municipalities, the local police, veterinary medical associations, and producer and farmer groups
- (7) The MAFF shall immediately provide or lend materials/equipment for disease control, which they possess, to the prefecture when receiving request from the prefecture.
- (8) When Response headquarters other than Headquarter or Prefectural Headquarter is organized. In this case, its purpose and scope shall be clarified so that any duplication or confusion of reporting line may be avoided.

[Note 87] Prefectural Response Headquarters

Note 50 is applied.

3 Announcement to the mass media

- (1) After the MAFF confirms affected wild boars according to XVII, the MAFF and the prefecture shall announce the details and future control measures to the mass media. If deeming it necessary for smooth and appropriate implementation of control

measures, the Animal Health Division may publish it before the confirmation after consulting with the competent prefectural livestock department.

- (2) In principle, the MAFF and the prefecture simultaneously issue the announcement specified in (1) above.
- (3) During issuance of the announcement specified (1) above, accurate information should be provided regarding the risk of virus spread via human or vehicles.
- (4) The mass media shall be asked to take a cooperative approach in the following matters:
 - (i) Give full consideration to privacy protection.
 - (ii) Do not access the area where affected wild boars were confirmed for epidemic prevention and disease control.

[Note 88] Press release

Note 51 is applied.

[Note 89] Seeking the cooperation of mass media

Note 52 is applied.

XIX Restriction or prohibition of traffic (Article 10 and Article 25-2-3 of the Act)

1 The prefecture or the municipalities shall, immediately after being notified of a confirmation of affected wild boars, in collaboration with the competent police department and other local government(s) concerned, restrict unnecessary and non-urgent entries (including economic activities and tourism activities) to the neighborhood of the area, or restrict or prohibit traffic in the vicinity of the neighboring farms, as necessary in the environment of the surrounding area, for the period of (1) or (2) defined. However, traffic for the purpose of commuting, medical or welfare service may be allowed on condition of sufficient disinfection.

When introducing these measures, prior consultation shall be made with the local police responsible for the area.

- (1) In case where the measure specified in 1 above is taken on farms rearing domestic pigs within a 3 km radius for disease prevention: for the period within 72 hours, based on Article 10-3 of the Act.
- (2) In case where the measure specified in 1 above is taken with no farm rearing domestic pigs in the same area as (1): the period considering the time to identify the status of virus spread in the area, based on Article 25-2-3 of the Act.

2 When deeming it necessary to expand the period for restrictions or prohibitions on traffic due to the infectious status among wild boars, advance consultations with road administrators are needed so that appropriate restrictions from the standpoint of disease prevention may be implemented.

3 When introducing traffic restriction/prohibition in accordance with Articles 3 and 7 of the Order, the prefecture shall endeavor to provide an explanation in advance about the overview and necessity of such restriction/prohibition or marking to the residents of the municipalities concerned, and if this advance explanation is difficult to carry out, an explanation shall be provided promptly after implementation.

XX Establishment of a movement restriction zone (Article 32 of the Act)

1 Establishment of a movement restriction zone

The prefecture shall, in a case of having notified of a confirmation of affected wild boars as per the provision of XVII herein, promptly establish an area within a 10-km radius (as a rule) of the point where the wild boars were identified as the area where movement of livestock (meaning items specified in 7) is prohibited (hereinafter referred to as “movement restriction zone” in the Section 2) in consultation with the Animal Health Division; provided, however, that CSF is considered highly likely, the movement restriction zone is established without waiting for the XVII diagnosis to be determined, in consultation with the Animal Health Division.

2 Method to establish the movement restriction zones

- (1) The outer boundary of the movement restriction zone shall be established based on the administrative units of municipalities, or other landmarks adequate to delineate borders such as roads, rivers and railroads.
- (2) In case where the movement restriction zone is straddle plural prefectures, under the guidance of the Animal Health Division, the prefectures concerned shall carry out sufficient consultation with each other in advance.
- (3) Prior to the establishment of the movement restriction zone, the following measures shall be taken. If taking these measures in advance is difficult, they shall be implemented immediately after establishment.
 - (i) Notifications to the owners of domestic pigs within the movement restriction zone, municipalities, and related organizations.
 - (ii) Publication through press releases.
 - (iii) Posting signs between a major road and the movement restriction zone.

3 Contacting pig owners

When establishing a movement restriction zone, the prefecture shall promptly inform the pig owners within the area of the details and a scheduled on-site inspection specified in XXIII-1(2) via telephone, FAX or e-mail.

4 Instructions provided to the pig owners within the movement restriction zone

When establishing a movement restriction zone, the prefecture shall instruct all pig owners within the zone to closely observe health conditions daily and to thoroughly take biosecurity measures, including prevention the entry of wild animals to the farm. In addition, based on Article 52 of the Act, the prefecture shall ask the owners for daily report about the presence of is any specific symptom and the number of domestic pig deaths every day until the restriction on the area are lifted.

[Note 90] Instructions that apply in the movement restriction zone

Prefectural animal health inspectors shall instruct related parties to perform the following activities in the movement restriction zone specified in XX-1 of the Guidelines. Additionally, they shall visit the related facilities as necessary and monitor the implementation status.

1 In requesting reports in accordance with Article 52 of the Act, the minimum necessary items that the prefecture requires from farms are as follows, and if other necessary items are found, additional reports should be requested as appropriate.

- (1) Existence/absence of any specific symptoms
- (2) The number of dead pigs, if any, (i) Location of the dead pigs (name of the premise and the location of the stall), (ii) Animal's age in days (or body weight), (iii) Likely cause of death
- (3) The number of the stillborn piglets
- (4) The number live born piglets
- (5) The number of sows that had abnormal production
- (6) The number of domestic pigs shipped from the farm
- (7) The number of domestic pigs introduced to the farm
- (8) Clinical findings of domestic pigs reared with the dead pigs

2 The farm shall voluntarily ban the entrance and exit of sites where domestic pigs are raised by non-relevant persons and the frequency of entrance and exit by relevant persons shall be minimized.

3 Vehicles and people shall be thoroughly disinfected when coming in and out.

4 In addition to thoroughly implementing control measures, including thorough disinfection of vehicles delivering livestock feed, examination of delivery route, restricted feedstuff delivery areas, the delivery route shall be recorded.

5 When a veterinarian diagnoses domestic animals, he/she shall carry the minimum instruments and drugs, wear and use easily disinfected or disposable medical clothes and medical instruments and thoroughly disinfect the body, instruments, vehicles in coming in or out the farm In addition, he/she shall thoroughly take measures to prevent pathogens spreading such as a voluntary ban on driving medical vehicles into the farm premises, and the route shall be recorded.

6 Vehicle entering and exiting carcass handling plants, rendering plants and slaughterhouses shall be thoroughly disinfected.

7 In areas in which contacts between wild boars and domestic pigs are assumed,

surrounding equipment shall be installed and feedstuff at farms raising domestic pigs shall be separated and stored to prevent contact with wild animals including boars.

- 8 They shall request related agencies such as the Wild Animals Damage Prevention Office (MAFF) and Office for Wildlife Management (MOE) for assistance in asking related parties including municipalities and hunting clubs to process wild boar's carcasses (including those killed by hunting) appropriately by incineration or burial, without leaving them in the field.

5 Revisions to the movement restriction zone

(1) Expansion of the movement restriction zone

If the infectious status among wild boars suggests spread of the epidemic outside the movement restriction zone, the movement restriction zone shall be expanded upon a consultation with the Animal Health Division.

(2) Reduction of the movement restriction zone

If the infectious status among wild boars clearly shows that the spread of the epidemic is focal, the movement restriction can be reduced to within a 3 km radius, upon a consultation with the Animal Health Division.

6 Lift of the movement restriction zone

The movement restriction zone shall be lifted upon a consultation with the Animal Health Divisions, if the infectious status among wild boars suggests that the risk of infection to domestic pigs is limited, the movement restriction zone can be fully or partially lifted based on the opinions of experts, the subcommittee, upon a consultation with the Animal Health Division.

7 Items subject to movement restriction

The following items shall be subject to movement restriction:

- (1) Live domestic pigs;
- (2) Semen and embryos collected in movement restriction zone (excluding those which were collected before 21st day prior to the diagnosis confirmed and which were separately managed);
- (3) Carcasses of domestic pigs
- (4) Manure of domestic pigs; and
- (5) Bedding materials, feedstuff and livestock feeding equipment (excluding the movement from non- farms).

8 Exclusion from restriction

The prefecture may, upon a consultation with the Animal Health Division, allow moving of domestic pigs, in which the absence of abnormal symptoms had been

confirmed through the inspection specified in XXIII-1-(2), to specific destination in the following cases. If serum antibody tests are conducted as necessary, the prefecture shall make an arrangement regarding sample shipment with the Animal Health Division and the NIAH.

- (1) Shipping domestic pig directly to slaughterhouses
 - (i) The pig owners shall submit the shipment plan for 1 month (as general rule) to a LHSC in advance. If the plan is changed, he/she shall immediately report to the center.
 - (ii) The administrative veterinarian or the pig owner shall continue clinical check for about one week (in general) before shipment, and he/she shall also measure the body temperatures of all domestic pigs to be shipped and reconfirm clinical signs on the morning of a day preceding shipment. He/she shall report the results with daily report to a LHSC.
 - (iii) The LHSC shall confirm the existence or the absence of fever and clinical signs reported in (ii).
 - (iv) If CSF cannot be denied, such as multiple domestic pigs among the shipped group are recognized to have a fever of 40 degrees or higher in (iii), the center shall enter the farm, collect samples and conduct a further test (blood and gene detection tests).
 - (v) If no abnormality is found in (iii), the center shall notify the owner of a shipment permission.
 - (vi) The LHSC shall confirm in advance that a slaughterhouse properly takes measures to prevent the virus from intruding and spreading.
- (2) Moving live piglets and sows to other farms
 - (i) The owner shall submit the shipment plan for 1 month (as general) to a LHSC in advance.
 - (ii) The movement shall be within a prefecture in principle, but they may be moved outside upon a consultation with the prefecture of acceptance.
 - (iii) As a general rule, all moved domestic pigs shall be confirmed negative via a gene detection test.
 - (iv) A follow-up monitoring of at least 21 days is conducted at a destination farm. During the time, the domestic pigs shall be segregated whenever possible.
- (3) Moving semen or embryo to other farms

Semen and embryos shall be preserved and isolated. Measures shall be taken to prevent pathogens from being brought (i.e., requiring persons entering the isolation area to wear dedicated clothes for that area and to thoroughly disinfect hands)

In addition, tools and equipment to be used for the measures shall be disinfected or sterilized without fail.

 - (i) Semen

In principle, the animals are checked for anomalies after sperm is collected and

the gene detection test is conducted and confirmed negative. Additionally, no semen shall be supplied until the test result is known. Additionally, sperm collected shall be managed separately from sperm already managed in segments until the test result is known.

However, only if blood sampling is problematic, the collected sperm can be used in gene detection tests and shall be confirmed negative.

(ii) Embryo

In principle, the animals are checked for anomalies after embryo is collected and the gene detection test is conducted and confirmed negative. Additionally, embryos shall be managed separately from embryos already managed in segments until the test result is known.

(4) Moving carcasses, manures, bedding materials, feedstuff and livestock feeding equipment

Only when it can be confirmed that the following requirements are met at a farm where the prefectural animal health inspector has confirmed reared domestic pigs have no clinical abnormalities, is it possible to move domestic pig carcasses, manure, bedding materials, feedstuff and livestock feeding equipment to incineration facilities and other necessary facilities for incineration, burial, rendering, composting or disinfection after a consultation with the Animal Health Division.

(i) Measures at the time of movement

- a. The prefectural animal health inspector shall confirm the existence or the absence of abnormalities in the domestic animals in the relevant farm on the day of movement or the previous night, by the daily report.
- b. The prefectural animal health inspector shall instruct the use of enclosed carrier vehicles or sealed containers as a general rule. If neither is available, cover the floor and side surfaces of carrier vehicle with plastic sheets and, after loading the package, cover the upper part of load with a plastic sheet as well, or take other measures necessary to prevent any load spillage.
- c. Disinfect the entire surface of the carrier vehicle before and after loading. In addition, the prefectural animal health inspector shall confirm the status of disinfection whenever possible.
- d. In principle, avoid travelling near other farms, and choose transportation routes that are not used by other livestock-related vehicles.
- e. Avoid delivery to multiple farms in a row.
- f. After transport, immediately disinfect the vehicle and materials used. g. T Record the course of the transportation process and maintain a record of its.

(ii) Measures at the time of incineration, rendering processing or disinfection.

- a. Take measures such as spreading plastic sheets from the carrier vehicle to the location where carcasses are disposed of;
- b. Take measures such as separation of the locations for carcasses and product

storage;

- c. Disinfect the route from the entrance of the disposal facility to the location where carcasses are disposed of, immediately after their introduction into the incineration, rendering or disinfection process; and
- d. A Disinfect livestock feeding equipment by an appropriate disinfection method. In addition, a prefectural animal health inspector should confirm the status of disinfection whenever possible.

XXI Restrictions on events at facilities gathering livestock (Articles 26, 33, and 34 of the Act)

1 Restriction within the movement restriction zone

- (1) The prefecture shall suspend the following businesses or events within the movement restriction zone upon a consultation with the Animal Health Division.
 - (i) Slaughtering domestic pigs in slaughterhouses
 - (ii) Events such as livestock markets, where domestic pigs are gathered
 - (iii) Free range for domestic pigs
- (2) The prefecture shall order the owners of slaughterhouses, rendering facilities in the movement restriction zone to carry out necessary disinfection by setting a time limit, and shall have them install necessary disinfection facilities as necessary.

[Note 91] Period for disinfecting facilities gathering livestock

In principle, the period should be based on the lifting of the movement restriction zone.

2 Resumption of slaughterhouses

(1) Requirements for resumptions

As for slaughterhouses in the movement restriction zone, if they satisfy all of the following requirements, the prefecture can allow them to resume operations based on a consultation with the Animal Health Division. In the cases where an outbreak of CSF occurs in the slaughterhouse, disinfection inside the plants shall be completed in addition to these requirements.

- (i) Vehicle disinfection equipment has been installed.
 - (ii) The facilities receiving live animals shall be clearly distinguished from other areas in the facilities.
 - (iii) Regular cleaning and disinfection are executed.
 - (iv) The biosecurity manuals are appropriately prepared and referenced/used by employees.
 - (v) A system shall be in place to comply with the provisions described in (2) below.
- (2) Matters to be observed after resumption of operations

After the resumption of operations, the facility shall be thoroughly managed so that following requirements are strictly observed:

- (i) Those entering the facility must wear dedicated outerwear, boots, head cover or gloves.
- (ii) Vehicles are thoroughly disinfected both going into and out of the facility.
- (iii) Animal deliveries are to individual farms only with no stops made at multiple farms.
- (iv) In the case of carrying in domestic pigs from a farm located within the movement restriction zone, adjustment shall be made so that no carrying-in vehicles from other farms are present at the slaughterhouses during the carrying-in operation, and the

facilities receiving live domestic pigs site shall be disinfected before and after carrying in the relevant domestic pigs(v) If domestic pigs are carried in from a farm in movement restriction zones , these pigs shall be carried in at the end of the day and be slaughtered and dressed within the day of being carried in;

- (vi) If it is determined that carried-in domestic pigs are unsuitable for slaughter and dressing pursuant to the Slaughterhouse Act (No. 114 of 1953), they shall not be returned to the farm but promptly disposed;
- (vii) Animals delivered shall be grouped according to farm of origin and managed separately.
- (viii) Delivery and shipment of domestic pigs and pork products shall be recorded and the record stored.

[Note 92] Matters related to events without gathering domestic pigs

Since it is possible to prevent the spread of CSF by thoroughly disinfecting areas around identified points where wild boars are diagnosed positive, prefectures shall announce that such events will be approved so long as proper disinfection procedures are followed as necessary. In addition, the prefecture will instruct to ensure that those who participate in events, from affected areas of CSF are not subjected to unfair treatment such as restrictions on their participation.

XXII Installation of disinfection points (Article 28-2 of the Act)

1 The prefecture shall, in a case of having notified of a confirmation of affected wild boars as per the provision of XVII herein, promptly install disinfection points in collaboration with the municipalities, competent police department, road administrator, with emphasis on the prevention of virus spread.

2 As for the concrete location of the disinfection points, the entrances of mountain roads where wild boars are diagnosed positive to CSF pursuant to XVII, neighborhoods of the farms around the affected areas, the borders of the movement restriction zone shall be selected in consideration of the following criteria. Additionally, if there are any epidemics of domestic pigs, the location shall be revised accordingly.

- (1) Conditions of the mountain paths and road system
- (2) Traffic of personnel or general vehicles
- (3) Traffic of livestock-related vehicles
- (4) Topography of the area such as mountains or rivers

3 In constructing disinfection points, facility structures shall be designed to enable effective disinfection of not only vehicles related to livestock industry or quarantine, but also general vehicles so that the spread of viruses by vehicles can be completely prevented.

Vehicles related to livestock industry or quarantine in particular shall be instructed to drive through to the points for especially thorough treatment including disinfection of the drivers' clothing and the interior of the vehicles.

Additionally, the prefecture shall take measures to prevent cross-contamination between vehicles at the disinfection points, such as installing multiple disinfection points at each location if necessary, paying attention to the location of entrance/exit or traffic flow.

Additionally, if disinfection points are located around mountain paths near locations where wild boars are diagnosed positive to CSF pursuant to XVII, persons passing through shall be thoroughly disinfected to prevent viruses from spreading among wild boars.

[Note 93] Items regarding vehicle disinfection

The Prefecture shall pay attention to the following matters when disinfecting vehicles

1 Disinfection at the disinfection points

- (1) Location of the disinfection points

In the discussion of where to place disinfection points, in addition to conferring with police superintendents and road administrators, the effect on the residential environment or agriculture shall be sufficiently considered.

- (2) Records of disinfection

If vehicles are processed through disinfection points, a certificate shall be issued as confirmation at destination points. In addition to instructing drivers be in possession of their certificates while on the road, the prefecture shall record and store copies of them so that processed vehicles can be identified.

2 Disinfection procedures at the disinfection points

Disinfection methods at disinfection points, shall be done by wheel dip or vehicle disinfectant mat on the road, or by guiding automobiles into open space such as a parking lot and applying disinfection by power sprayers, and with consideration to the location characteristics. Additionally, personnel for guiding drivers to the disinfection point and those performing disinfection shall be separately arranged.

(1) Vehicles related to livestock

As for the disinfection of vehicles, cationic soap or slaked lime, which are not irritating to the body, shall be used. The entire vehicle shall be disinfected after the mud are removed by power sprayer with focus on wheels and tires. Drivers' seats and cargo beds shall be disinfected by wiping. In these cases, care shall be taken not to leave any point, such as movable parts undisinfected, Hands and shoe soles of drivers shall be also thoroughly disinfected.

(2) General vehicles

At least, drive through wheel dip or disinfectant mats shall be implemented. In these cases, disinfectants shall be regularly replaced so that sufficient effectiveness may be maintained.

3 Period for disinfection point operations

In principle, disinfection points are generally operated until the movement restrictions are lifted from the area. However, depending on the spread of the virus, the operation period shall be reviewed upon a consultation with the Animal Health Division as necessary.

4 Providing accurate information and instructions

Prefectures other than the affected prefecture shall supply precise information and appropriate instructions so that vehicles from the affected prefecture may not be restricted from entering other prefectures after the appropriate disinfection.

XXIII Confirmation of the status of virus spread

1 Confirmation of the status of virus spread

The prefecture shall, in a case of having notified of a confirmation of affected wild boars as per the provision of XVII herein, immediately take the following measures upon a consultation with the Animal Health Division. These measures can be taken before the diagnosis pursuant to XVII as necessary.

(1) Inspections among wild boars

The prefecture shall conduct antigen tests and antibody tests (as a general rule) on wild boars that died or were captured within a 10-km radius of the point where the said wild boars were identified, to confirm the status of virus spread. Additionally, they shall endeavor to prevent the disease from spreading to other wild boars or domestic pigs.

[Note 94] Inspections on wild boars

As for the inspection specified in XXIII-1-(1) of the Guidelines, the prefecture shall continue gene detection tests for at least 28 days in principle. Sampling shall be actively conducted within 3-km radius of the point. Serum antibody tests will be conducted as necessary.

The prefecture shall request that parties, including hunting clubs, to notify the department in charge and to cooperate by taking samples from the animals in case they encounter dead wild boars or capture live ones. Depending on the status of virus spread, the subject area shall be expanded and the implementation period of at least 28 days shall be continued based on comments from experts, including commissioners of the subcommittee.

[Note 95] Preventing the spread among wild boars and from wild boars to domestic pigs

The prefecture shall examine and implement effective measures, including fences, voluntary ban of hunting, coordinating research captures, clearance food materials such as harvest residue around farms as well as reducing wild boar habitat density through capture as necessary, based on the opinions of the government and experts, virus spread status among wild boars in the area, environmental factors (i.e., inhabiting situation of wild boars, number of surrounding farms, rearing density of domestic pigs, and geographical characteristics such as mountains or rivers)

(2) Inspections among domestic pigs

The prefecture shall conduct on-site inspections on farms (exclusive to farms rearing at least six animals) within the movement restriction zone to confirm the existence or the absence of specific symptoms. In this case, samples for diagnosis shall be taken

and gene detection tests and serum antibody tests conducted as necessary

2 Measures to prevent spread of virus among wild boars in the neighborhood

The prefecture shall thoroughly disinfect the points where wild boars inspected as described in 1-(1) were identified, and require related parties, including hunting clubs to handle carcasses appropriately with immediate incineration or burial.

[Note 96] Measures to prevent spread of virus among wild boars

For information on the appropriate treatment of dead or captured wild boars to prevent the spread of viruses, refer to the Guide.

3 Confirmation of the compliance to Biosecurity Standards (Article 34-2 of the Act)

- (1) In a case of having notified of a confirmation of affected wild boars as per the provision of XVII herein, the prefecture shall confirm the status of compliance with Biosecurity Standards on farm in and around restriction zone, through the results of on-site inspections, the most recent investigation on the status of compliance, and the instruction record on biosecurity management in accordance with I-3-(2).
- (2) In the case when, as a result of (1) above, recognizing that the following items in Biosecurity Standards are not being complied with by the owners of domestic pigs, and that CSF is highly likely to spread unless the situation is not improved immediately, the prefecture shall recommend the pig owners in problem to improve by setting time limits and issuing documents specifying the matters to improve, in accordance with the Biosecurity Instruction Plan:
 - (i) Items regarding methods to prevent the spread of contamination with infectious disease pathogens in domestic animals within the biosecurity area
 - (ii) Items regarding methods of preventing infectious disease pathogens of domestic animals from spreading outside the biosecurity area
- (3) In the event that the owner who has received the recommendation set forth in (2) above fails to comply with the said recommendation, the prefecture shall order the owner to take measures pertaining to the Biosecurity Instruction Plan by setting a time limit and issuing a document specifying the matters to improve

XXVI Spreading oral vaccine

In cases in which CSFV is likely to be spreading among wild boars per results of the investigation in III-1-4, XII-6 or XXIII-1-(1), the government and the prefecture shall, in cooperation with municipalities and related organization such as hunting clubs, take the following measures in principle to prevent further spread of CSF among wild boars and the entry of CSFV into farms.

- 1 The MAFF shall decide whether to use oral vaccines based on the expert opinions including wild boar experts, in consideration to the status of the spread of CSFV among wild boars.

- 2 If the use of oral vaccines is decided as per 1, the MAFF shall formulate and publish “Guidelines regarding the implementation of spreading oral vaccine (hereinafter referred to as “Implementation Guidelines” in 3)” which describes oral vaccine usage or methods to analyze and evaluate its effects/ effectiveness of oral vaccine sprays

- 3 The prefecture shall formulate the prefectural plan about spreading oral vaccine based on the Implementation Guidelines with the assistance of the government, municipalities, and related organization such as hunting clubs, and conduct it effectively and efficiently.

[Note 97] Oral vaccine spreading

The prefecture shall implement oral vaccination and reduce habitat density by capturing wild boars, and shall, as necessary, review other effective measures based on the opinions of the government and experts.

Chapter 4 Others

XXV Others

- 1 Domestic pigs possessed by related parties in the livestock industry, including genetically important pigs such as sire pigs, are not individually and specially treated at all. On this assumption, related parties in the livestock industry shall distribute risks regularly by keeping the genetic resource with frozen semen and frozen embryos and dispersing the holdings of sire pigs.

- 2 The Director-General of the Food Safety and Consumer Affairs Bureau, MAFF, shall, as needed, separately lay down notes when implementing control measures on the basis of this Guidelines.

- 3 The MAFF shall promote research and development that will contribute to the improvement of control measures, and when these efforts have produced results, it shall promptly review this Guidelines.

- 4 In consideration of the fact pig owners and personnel in charge of control measures may continue to suffer from psychological stress even after completing all control measures, the prefecture shall endeavor to provide support, by visiting farms and maintaining consultation services even after the completion of control measures on the infected farm. Additionally, they shall provide the pig owners, municipalities, and related organizations with the results of epidemiological investigation and information regarding re-introduction of domestic pigs.

[Reference]

(Attachment 1)

Diagnosis Manual of CSF

CSF is a pestivirus of the family Flaviviridae and antigenically and structurally very similar to the viruses that cause Bovine viral diarrhoea virus (BVDV) and Border disease virus (BDV). Clinical signs of pigs affected with CSF (hereinafter referred to as “this disease”) and autopsy findings vary considerably depending on virus strains and the host pigs. If a pig fetus is infected with a ruminant pestivirus such as BVDV and BDV, the symptoms may resemble those of CSF so closely that it would be impossible to distinguish the two.

Regardless of their stages of development, pigs infected with this disease show the main clinical signs of fever, huddling, decrease or loss of appetite, torpor, weakness, conjunctivitis, constipation, followed by diarrhoea and an unsteady gait. A few days after the onset, purpura may occur in the auricle, abdominal or inner thigh regions. In acute cases, pigs die within one or two weeks, without any showing clinical signs of this disease.

As in cases of different virus strains, either subacute or chronic forms apply depending on the pig’s age in months and condition. Infected animals subsequently die within a period spanning two to four weeks to a few months. In its chronic form, symptoms such as developmental delay, decrease or loss of appetite or intermittent fever or diarrhoea appear. Immunogen and leukopenia are often observed before fever is evident and the immunosuppression effects such as these can cause concurrent infections.

In its acute form, visible pathological changes tend not to emerge. Typical visible symptoms are reddened and enlarged lymph nodes, epicardial bleeding, hemorrhagic transformation in spleen as well as bleeding in the kidneys, bladder, skin, or subcutaneous tissue. In its subacute or chronic form, necrotizing or “button-shaped” ulcers on gastrointestinal, epiglottis, or laryngeal mucosa in addition to the above findings may be observed.

In terms of histopathological findings, lesions such as parenchymatous degeneration of lymphoid tissue, cell growth in vascular fibroblasts and nonsuppurative meningoencephalitis with perivascular cell infiltration emerge, none of which are specific to CSF.

Accordingly, although this disease presents multiple clinical signs and lesions, they are not specific to this disease. Making a diagnosis using clinical signs and finding differences from viral diseases such as ASF, porcine circovirus associated disease (PCVAD) and porcine dermatitis and nephropathy syndrome (PDNS) and salmonellosis, pasteurellosis, actinobacillosis and *Hemophilus parasuis*, which cause sepsis is difficult.

Therefore, laboratory virologic diagnoses are most important. Laboratories employ direct methods to detect antigen factors such as CSFV, its nucleic acid, or viral antigen, as well as indirect methods to detect virus-specific antibodies. Although the latter antibody detection method is subject to problematic cross-reaction with ruminant pestivirus such as BVDV. As in its acute form, pigs show clinical signs and die before detection of the specific antibodies that are used mainly to monitor the cleanliness.

A Domestic pigs

I Antigen test

1 Test policy

When diagnosing cases of which this disease is suspected, considering the rapidity and the number of processable samples, the CSFV antigen detection method with emulsion of blood, tonsils, etc. is the best. Accordingly, rather than multiple organs collected from a single pig suspected of carrying this disease, it is preferable to test blood, tonsils and other organs from many pigs suspected of carrying this disease to prove the viral antigen of this disease.

Although detection is possible by viral isolation method within approximately 24 to 48 hours, provided the virus exists in high concentrations, it is preferable to continue observation for least one week, since the amount of the inoculated virus might have been small. It is important to conduct conventional RT-PCR and real time RT-PCR parallel to viral isolation to confirm the existence of a virus at an early stage. However, regarding conventional RT-PCR, since it is necessary to confirm that the amplification product was not derived from another pestivirus (described below) or from PCR products derived from other positive samples or positive control (cross-contamination), a comprehensive judgment, taking also viral isolation results into account, should be implemented.

Additionally, consideration of how cells used in viral tests are maintained and managed in advance, regular maintenance checkup of Thermal cycler and PCR facilities, procurement of dry ice to be used to produce frozen sections, procurement necessary materials such as n-hexane and precooling of cryostat sections for smooth diagnosis is preferable. In the event that dry ice is not readily available, n-hexane preserved at -80°C can also be substituted.

2 Collection

- (1) After arriving at a farm, conduct a clinical test and if the signs in IV-2 of the Guideline are confirmed and CSV is suspected, prioritize pigs with the signs and conduct a diagnosis.
- (2) It is desirable to swiftly collect samples from pigs, which are disposed of for diagnosis, or those immediately after death. In addition, when obtaining necropsy materials, live tissue materials should be prioritized, while those remaining for tissue fixing should be kept in formalin. Live tissue materials include the tonsil (all one sides), kidney (including cortex) and spleen (partial) and are used not only to produce emulsion for viral isolation but also frozen sections, striving not to destroy the organizational structures when collecting them. Individually, the collected materials should be placed into a sterilized 6-hole plate, which should then be fixed and have the cover sealed with vinyl tape. The next step would be to place it into a plastic bag, refrigerate (ice) it and bring it back to the examination room. If a pig is infected, its live

tissue materials and blood include a high quantity of virus. As used sampling and dissecting instruments are polluted with high viral loads, they should be handled with due care.

In addition, for live pigs showing signs arousing suspicions of this disease and pigs reared with them, their blood (blood serum or blood with anticoagulant added) should be collected to use materials for not only antibody and leukocyte counting tests but also viral isolation and PCR tests.

3 Producing frozen sections and emulsions

Materials for producing frozen sections shall not be thawed and fresh materials are used. During each manipulation, measures for litter pathogen control should be taken, such as laying out a cotton cloth impregnated with disinfection liquid on a table.

(1) Processing of live tissue materials

- a. Cut more than two portions of tissues respectively around 1 cm x 5 mm in size (tonsil), or 1 cm x 1 cm (kidney and spleen) to create frozen sections.
- b. Place about 1 g of the remaining tissue on a petri dish to produce an emulsion and weigh it. Store it in ice until an emulsion is produced.
- c. Enter the pig number and specimen name on filter paper.
- d. Place a tissue for producing a frozen section with the cutting surface face up on the filter paper. On this occasion, be careful to make a vertical section of the crypt for a tonsil and renal tubules epithelium for a kidney.
- e. Pick up the filter paper with the tissue fragment thereon with tweezers and soak it in n-hexane chilled by dry ice acetone or -80°C freezer for rapid freezing. Note that if it is excessively soaked, the tissue fragment will be broken.
- f. When it is frozen, move it quickly to cryostat storage, place it into a cold-resistant tube and store it in a -80°C deep freezer.

(2) Producing a frozen section specimen

- a. When frozen tissue is in the cold-resistant tube according to (1)f., take out the tissue fragment from the cold-resistant tube in cryostat storage.
- b. Place the tissue fragment on a sample table with the compound.
- c. Facing.
- d. Produce a 6 µm section.
- e. Place sections on a peeling prevention coated slide glass.
- f. Dry them immediately with a dryer.
- g. Fix it with cold acetone for ten minutes.
- h. Dry it with air to create a slide glass specimen.

(3) Produce emulsion for viral isolation and PCR test (using a homogenizer and cell-crushing apparatus is acceptable)

- a. Place a tissue fragment in (1)b. in a mortar.
- b. Shred the tissue fragment with scissors in the mortar.

- c. Add silica sand appropriately and lightly grind down the tissue fragment with a pestle.
- d. Place the cultures there so that the weighed tissue fragment can be 10%(w/v) and emulsify it effectively (for example, when the tissue fragment is 1 g, 9 ml cultures should be added.)
- e. Move the emulsified tissue fragment into a centrifuge tube.
- f. Cool and centrifuge at 3,000 rpm for 15 minutes.
- g. Move the supernatant to a small test tube and create a 10% emulsion.

4 Isolation of the virus (using chamber slides as opposed to coverslips)

To prepare a cover slip specimen, emulsion is inoculated after producing a cell sheet on a cover slip. The Fetal Bovine Serum (FBS) used in the cell culture shall be negative to BVDV antibody. Additionally, if the individual has both the virus and neutralizing antibody, sometimes virus isolation from the emulsion becomes negative. Therefore, a weak emulsion (as described below) shall be also inoculated. After inoculating the emulsion, cells on the cover slip are sampled every day, immobilized with cold acetone, and the CSFV antibody in the cytoplasm is detected with fluorescent antibody method. Given that the observation period is at least one week, if the viral load of the emulsion is low and consequently the specific fluorescence is not observed in the cell sheet on the cover slip until the day three, the cover slip should be inserted into another six-hole plate to prepare a cell culture. If the specific fluorescence is not observed on the day four, inoculation of the supernatant of the cover slip on the cell culture prepared on the previous day should be done and culturing continued. From days five to seven, the above observation should be performed on the cell culture's cover slip.

Additionally, measures such as laying cotton cloth containing disinfectant solution shall be taken in each operation to prevent pathogen from scattering.

(1) Preparation of cultured cells

- a. CPK cells are used for viral isolation (note that this differs from the CPK- NS cell in II-4) and subculture cells with three times the amount.
- b. Enter three to four coverslip sheets (6 x 18 mm) into each hole of a six- hole plate to avoid overlapping other sheets.
- c. Place 3 ml of cell-suspended liquid into each hole. On this occasion, note that the coverslip may suspend and be overlapped.
- d. Culture it overnight at 37°C.
- e. Next day, confirm the cell sheets are formed and use them.

(2) Produce an emulsion vaccination and coverslip specimen

- a. The amygdalae emulsion should be filtrated with a 0.45 µm filter and clogging can be prevented if filtered with a glass filter in advance.
- b. Produce a dilution sequence of emulsion and blood (use a stock solution, 10x or 100x

- diluted) and vaccinate 0.2 - 0.3 ml of the volume to cell sheets in (1)e. (the stock solution should be stored at least until the test is completed.).
- c. Stand them still for viral absorption for 1 hour, during which tilting should be conducted for 15-20 minutes.
 - d. Wash the cell surfaces in PBS or a medium.
 - e. Add culture solution containing 5 % blood serum and incubate at 37°C. Although the serum shall be FBS negative to BVDV antibody, it can be substituted with equine serum. In this case, check in advance whether the CPK cell can be cultured with the equine serum.
 - f. Take out a coverslip chronologically and after washing with PBS, fix it for ten minutes with cold acetone.
 - g. Air dry it to be a coverslip specimen.

5 Fluorescent antibody method

Use a commercially available fluorescent antibody to diagnose CSF for a slide glass specimen in 3-(2) h. and fluorescent staining of a coverslip specimen in 4-(2) g. If a viral antigen is positive in a frozen tonsil section, specific fluorescence, which can be observed only in the cytoplasmic section (the nucleus looks black), is observed in the crypt epithelial cell and fluorescence. On the other hand, if the virus is isolated in the coverslip specimen, specific fluorescence, which is observed within cytoplasm as in the slide glass specimen, is observed either in an entire specimen or part of the cells. It depends on the virus content whether the fluorescence is observed on the entire specimen or a part of it. When the virus amount is small, the infected cells proliferate in focal manner to formulate focuses as the culture time elapses. Since the determination of the test result is done most easily by the focus forming period, it is necessary to observe it for several days. In dyeing either specimen, if GPE-vaccine strain infection coverslip specimen prepared in advance as a positive control of antigen is dyed simultaneously, it will be checked whether there was any problem in the inspection procedure and the determination will be easy. For details of the fluorescent antibody dying method, refer to the manual attached to the fluorescent antibody for Diagnosis Manual of CSF.

6 Conventional RT-PCR

The blood material in 2-(2) and 10% emulsion in 3-(3) g., or culturing supernatant in viral isolation shall be used as specimens. In addition, to accurately determine when cross-contamination has occurred, the test is always conducted via a method using two types of positive control samples. However, if it is not possible to obtain the positive control specimen in (1)(ii), the test is conducted with the CSFV vaccine strain (GPE-strain) as the positive control specimen according to 7.

Although it is possible to test by the same method when testing semen, when the material is undiluted, it shall be diluted to the same extent (50 folds) as a commercially available semen using a diluted solution for semen, PBS or physiological saline.

(1) Positive control sample

(i) Positive control sample 1: BVDV culture supernatant

Culture supernatant of BVDV type 1 or 2 is used. RNA is extracted from the sample in the same way as from the test material and used as a positive control sample to determine the success or failure of the test up to the PCR reaction.

(ii) Positive control sample 2: CSFV (GPE-strain) altered DNA

The DNA distributed by the NIAH is used. The sample is a positive control sample used to determine the success or failure of the test from the PCR reaction to the restriction enzyme treatment.

(2) Extraction of RNA

Commercially available RT-PCR kits or nucleotide (RNA/DNA) extraction kits are easy to use and operate. While refinement with automatic extraction machines is also possible, it should be confirmed whether the inspection in the following items. The materials to extract are blood, emulsion, culturing supernatant and kits suitable for materials shall be selected. Degradation of infectivity titer because of freeze-thaw would not be worried about if appropriate quantity (within the range 50 - 400 µl depending on the kit) of material is dispensed into each of other microtubes than used for virus isolation in preparing specimen for isolating virus. Materials are handled as infectious until denaturant is added and admixed.

In addition, the extraction of RNA must also be carried out for the positive control sample 1. Preferably, the appropriate amount of sample should be dispensed into tubes and stored frozen.

(3) RT-PCR reaction

Commercially available RT-PCR kits are convenient. Especially, those of one-tube method that can continuously conduct RT and PCR reactions are particularly convenient and capable of mitigating manipulation and cross-contamination problems. However, although some commercially available kits contain UNG enzyme (Uracil-N-Glycosylase) to prevent cross-contamination due to carry-over of products after the PCR reaction, it should be noted that, although this enzyme can be expected to reduce the risk of cross-contamination, it is not suitable for gene analysis after PCR reaction (restriction enzyme treatment, sequence analysis). The target of the test is the 5'-nontranslated region (5'-NTR). However, while the 5'-NTR region is highly preserved and can be detected with high sensitivity, it also detects various types of other pestiviruses other than CSF, such as BVDV, the detected PCR products also need to be analyzed in detail with supplementary tests such as RFLP analysis or gene analysis.

In addition, while positive control sample 2 is placed as a positive control and PBS as a negative control, since there is a risk of cross-contamination, the positive control must be carefully handled with facilities and biosafety in mind.

a. Primer and annealing temperature

Upstream primer “324” and downstream primer “326” by Š.Vilček (Arch.Virol,136:309-323,1994) shall be suitable to detect CSFV. As both T_m values are 56.5°C, PCR annealing (pairing) should be conducted at 55-57°C. The denature (denaturation) and extension (expanding) temperatures and their time and number of cycles are set according to the kit to be used.

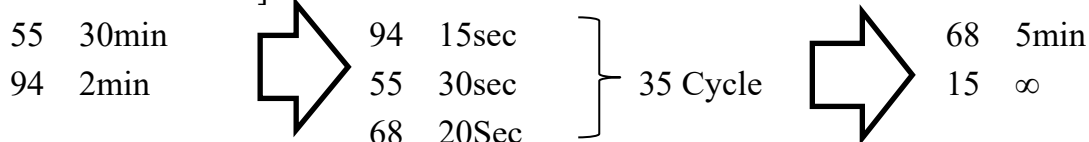
[Primer Sequence]

Upstream primer [324] 5'-ATG CCC (T/A)TA GTA GGA CTA GCA-3'
 Downstream primer [326] 5'-TCA ACT CCA TGT GCC ATG TAC-3'

[Composition of the reaction liquid] Example for SuperScriptIII One-step RT-PCR kit, Invitrogen

2×Reaction Mix	12.5µl
324 Primer (10pmol/µl)	0.5µl
326 Primer (10pmol/µl)	0.5µl
Enzyme Mix	1.0µl
DW	8.0µl
Sample	2.5µl
Total	25.0µl/tube

[PCR reaction condition]



b. Agarose cataphoresis and restriction enzyme treatment

For CSFV, about 280 bp (often 284 bp) of PCR products are produced. Products are electrophoresed in 1-2% agarose gel and observed and photographed under UV radiation.

Since about 280 bp of products are produced also for other pestiviruses, such as BVDV, it is impossible to distinguish CSFV from BVDV on agarose gel cataphoresis. While determination of base sequence is necessary for identifying the virus for sure, simple identification is also possible by digesting the PCR product with restriction enzyme and assaying it with agarose cataphoresis (RFLP analysis).

Moreover, with the method written on this manual, it is possible to check the cross-contamination by processing with 2 kinds of restriction enzyme. The restriction enzyme *Bg/I* and *EcoRV* are used and the assay shall be conducted referencing the constitution of the reaction solution shown below.

If it is CSFV (the PCR product before the processing is 284 bp), it is cleaved

exclusively by *Bgl*I and the size becomes smaller than before the processing to be 243 bp. (the fragment of about 41 bp is cut out by the restriction enzyme).

Conversely, in BVDV of the positive control sample 1, since it is not cleaved by *Bgl*I or *Eco*RV, it remains 284 bp after the treatment, the same as before.

In addition, since the DNA of the positive control sample 2 is cleaved by both *Bgl*I and *Eco*RV, the size after treatment becomes 144 bp (about 41 and 99 bp are cut out by the restriction enzyme), smaller than that of CSV.

[Constitute of the reaction liquid] Treatment with *Bgl*I and *Eco*RV

PCR reaction liquid	5.0µl
10×high buffer	2.0µl
<i>Bgl</i> I	0.5µl
<i>Eco</i> RV	0.5µl
DW	12.0µl
<hr/>	
Total	20.0µl/tube

[Reaction condition of the restriction enzyme treatment]

37°C 60min

* According to the optimum temperature of commercially available restriction enzyme

7 Real-time RT-PCR

In the implementation of real-time RT-PCR, commercially available kits are convenient. For the reaction condition, refer to the manual included in the kit.

Blood (whole blood or serum) is used as the test specimen, which is prepared according to the manual included in the kit. The blood as fresh, with less hemolysis, and clear as possible should be used. Additionally, if it is difficult to collect blood, organs (tonsil, spleen) can be used. The specimen shall be prepared according to the manual included in the kit.

If the real-time RT-PCR test result is positive, the sample shall be delivered to NIAH and confirmation test shall be done.

8 Handling of the test results

If the findings of the frozen section and viral isolation show a positive result is likely, responses should be pursuant to IV-6 of the Guideline.

II Antibody test

1 Policy of testing

In the acute form of CSF, detecting by clinical inspection is important since many pigs

die before production of antibody. Conversely, in the chronic form of CSF, no clear symptoms are shown and it is difficult to detect the disease in a clinical test, but as many affected pigs produce the antibody, this disease can be detected in an antibody test. In addition, unlike the fluorescent antibody method, the antibody test can be implemented as an antemortem test and is useful as one of the monitoring tests for free status confirmation. In outdoor viral infections, pathogens easily spread through horizontal infection. Conducting a test on antibody-positive and epidemiologically related pigs allows the evaluation of viral spreading in a big group. In addition, pigs vaccinated with this disease as a live vaccine can retain antibodies against CSFV virus for the rest of their lives. When using the vaccine, this should be focused on when making the evaluation.

As a rule, an antibody test should be implemented immediately after collecting samples. If the results trigger suspicions of an outdoor infection, this disease should be immediately reconfirmed (via an antigen test).

2 Adjustment of test blood serum

Isolate the serum from the collected blood as soon as possible and after separating the live serum for antibody tests such as viral isolation, be sure to inactivate serum to be offered to an antibody test, (56°C heat treatment for 30 minutes). Any residue and blood serum not immediately used can be preserved in a frozen state at -20°C. With the possibility of virus infection in mind, place the live serum into a sealing container and preserve it at -80°C.

3 Enzyme-linked immunosorbent assay (ELISA) method

Use a commercially available ELISA kit and determine manipulation and judgment in accordance with the attached manual. As a viral neutralization test does not use live virus, the test results can be obtained safely and promptly. However, it should be noted that ELISA sometimes has lower detection sensitivities than viral neutralization tests.

4 Viral neutralization test (Y. Sakoda, J. Vurol. Methods, 75: 59-68, 1998)

Use a vaccine virus GPE strain as an indicator virus for a viral neutralization test, use +++ as cultured cells and use porcine kidney cell line (CPK-NS cell) suitable for a serum-free medium as cultured cell. By combining this virus and cultured cells, a neutralization antibody can be determined using a cytopathic effect (CPE) as an indicator. The CPK-NS cell is unsuitable for viral isolation and producing indicator viruses given the lack of scope for the CPK-NS cell to proliferate CSFV. In addition, since handling the vaccine virus involves a live virus, thorough management is required, including leakage prevention outside the laboratory and focusing on pollution of the cultured cell and sample.

(1) Preparation for serum-free cultured cells

In a viral neutralization test, CPK-NS cells, which can be proliferated in serum-free cultures, shall be used. In the subculture of this cell, a new plastic culture flask should

be used rather than a recycled flask. Other than at least two centrifuge/washing manipulations repeated to remove cell dispersions (trypsin solution) at the time of subculture, there is no difference in normal subculture. Therefore, under normal circumstances, a subculture is conducted every seven days, with a cell surface area ratio three times. In the case of 25cm² (75cm²), suspend in 15 ml (45 ml) and dispense 5 ml (15 ml) every time for incubation.

[Method to prepare serum-free cultures]

Eagle MEM: 9.4 g (product evaluation value)

TPB (Tryptose Phosphate Broth): 2.95 g

BES (N, N-Bis (2-hydroxyethyl)-2-aminoethanesulfonic acid) : 2.13 g

Bacto Peptone: 5.0 g

Weigh the above-described reagent, dissolve it with 1 liter of pure water or ultrapure water and use an autoclave at 121°C for 20 minutes. After cooling to room temperature, add 10 ml of 3% L-glutamine and 30 ml of 7.5% baking soda and use it as usage liquid.

- a. Remove the medium and wash once with PBS, which is twice or three times as much PBS as a medium.
- b. Digest the cell with trypsin solution (normally, around 10-30 minutes) and add a minor amount of medium. Once the cells are fully dispersed by pipetting, suspend them in ten times the amount of medium to trypsin solution.
- c. Collect the cell suspension liquid in a centrifuge tube to centrifuge (1,000 rpm for 5 minutes). After centrifuging, remove the supernatant, add the medium and suspend the cells.
- d. Centrifuge the cells again (1,000 rpm for five minutes) to remove supernatant.
- e. After refloating the medium again in three times the amount to the original cell surface dispense the cell suspension liquid within the plastic culture flask.
- f. Leave it to stand at 37°C. Subculture cells again seven days later or provide a viral neutralization test. Cells can be subcultured on around the fourth day, but note that the small number of cells means subculturing with three times the amount is not possible.

(2) Viral neutralization test

A vaccine (GPE) strain shall be used as an indicator virus in the viral neutralization test, causing CPE in CPK-NS cells but rarely proliferating. To produce the indicator virus stock for a viral neutralization test, like viral isolation, use PK cells (note that the cells differ from the CPK-NH cells in II-4). For medium, use one with 5% serum added. Use CPK-NS cells in a serum-free medium to measure the virus or neutralization antibody value of non-virus stock production.

a. Virus fluid adjustment method

- (a) Vaccinate sheet CPK cells for about 0.1 multiplicity of infection (M.O.I) and stand it to allow virus absorption for one hour. During this time, tilting should be conducted at 15 - 20-minute intervals.

- (b) Wash the cell surfaces in PBS or medium.
- (c) Add 5% serum-added cultures and incubate at 37°C.
- (d) For an open culture, collect the culturing supernatant in a centrifuge tube on the fourth or fifth day after culture. Centrifuge the collected culturing supernatant (1,000 RPM for five minutes) to remove the supernatant.
- (e) Further centrifuge the centrifuged supernatant for 15 minutes at 3,000 RPM to remove cell debris and dispense in a small amount of 0.5 ml. The dispensed virus fluid is then preserved at -80°C and the thawed virus titer measured. If the virus titer is not adequate, conduct the same subculture process again.

b. Virus titer measurement method

- (a) Digest CPK-NS cells with trypsin, centrifuge twice and adjust the cell suspension liquid. Refloat cells in the same amount of serum-free medium(5ml/25cm²) as for the subculture with triple cell confluency.
- (b) Dilute the virus fluid to be measured in a serum-free medium tenfold.
- (c) Place the diluted virus fluid in a 96-hole microplate, with 100µl per hole.
- (d) Input 100 µl of the adjusted cell suspension liquid in each hole, culture it for seven days in a carbon dioxide incubator at 37°C
- (e) Use the CPL observed on the cell surface as an indicator to find the virus titer. (TCID₅₀).

c. Neutralization antibody measurement technique

Normally, using the simultaneous vaccination method is recommended as its procedure is simple. However, depending on the condition of the serum, it may be difficult to see the CPE in the holes of the low-dilution rows. In such cases, using the sheet method is recommended. In addition, in immunization status confirmation surveillance using multiple samples as controls, it is acceptable to conduct the test using one row per sample. There is no difference in neutralization antibody value obtained by the simultaneous vaccination method and the sheet method.

(a) Simultaneous vaccination method

- a) Place 50 µl of inactivated test blood serum in a 96-hole microplate, dilute twofold with 50 µl of serum-free culture and produce two identical dilution rows. In prefectures where GPE-live vaccination has not yet been implemented, four-tube dilution rows from 2 to 16 folds shall be produced. In prefectures where GPE-live vaccination has been implemented, dilution rows from 1 to 2048 folds or 2 to 4096 folds shall be produced, depending on the neutralization antibody value that the pigs to be tested are estimated to have. On this occasion, prepare holes for cell control which are not vaccinated for the virus, for serum control to determine the degree of serum toxicity, and for back titration. Place 100 µl of serum-free cultures in the cell control holes, 50 µl in the serum control holes (not required if serum dilution is started at one-fold), and 50 µl in the back titration holes. If priority is given to securing the number of dilution rows, preparing serum control holes is not

necessary.

- b) Vaccinate the virus fluid adjusted to 200 TCID₅₀ per 100 µl in a 96-hole microplate, into the serum-diluted row by 50 µl. In addition, place 50 µl of inactivated test blood serum in the serum control holes (100 µl if serum dilution is started at one-fold). At the same time, vaccinate 50 µl of 10-fold diluted and adjusted virus fluid per hole with 50 µl serum-free cultures and perform back titration.
- c) After agitating the plate, sensitize it in a carbon dioxide incubator at 37°C for 1 hour.
- d) During the sensitization, digest CPK-NS cells with trypsin solution, centrifuge twice and adjust the cell suspension liquid. Refloat cells in the same amount of cultures as used for normal subculture.
- e) Input 100 µl of the cell suspension liquid in each hole, culture it for seven days in a carbon dioxide incubator at 37°C.
- f) Use CPE recognized in the cell surface as an indicator to find the neutralization antibody value.

(b) Sheet method

- a) Two days before or the day before the viral neutralization test, digest CPK-NS cells with trypsin solution and then centrifuge twice. Refloat the cells in the same amount of cultures (5 ml per 25 cm²) as for the subculture with triple cell confluency. Input 100 µl of the cell suspension liquid in each hole of a 96-hole microplate and culture it in a carbon dioxide incubator at 37°C.
- b) Place 60 µl of inactivated test blood serum in a 96-hole microplate (round bottom is preferable), dilute twofold with 60 µl of serum-free culture, and produce two identical dilution rows. In prefectures where GPE-live vaccination has not yet been implemented, four-tube dilution rows from 2 to 16 folds shall be produced. In prefectures where GPE-live vaccination has been implemented, dilution rows from 1 to 2048 folds or 2 to 4096 folds shall be produced, depending on the neutralization antibody value that the pigs to be tested are estimated to have. On this occasion, prepare holes for cell control which are not vaccinated for the virus, for serum control to determine the degree of serum toxicity, and for back titration. Place 120 µl of serum-free cultures in the cell control holes, 60 µl in the serum control holes (not required if serum dilution is started at one-fold), and 60 µl in the back titration holes. If priority is given to securing the number of dilution rows, preparing serum control holes is not necessary.
- c) Vaccinate the virus fluid adjusted to 200 TCID₅₀ per 120 µl in a 96-hole microplate, into the serum-diluted row by 60 µl. In addition, place 60 µl of inactivated test blood serum in the serum control holes (100 µl if serum dilution is started at one-fold). At the same time, vaccinate 60 µl of 10-fold diluted and adjusted virus fluid per hole with 60 µl serum-free cultures and perform back titration.
- d) After agitating the plate, sensitize it in a carbon dioxide incubator at 37°C for 1

hour.

- e) Remove the cultures from the CPK-NS cells that have been cultured in the 96-hole microplate since the previous day and place 100 µl of serum-virus mixtures for each hole. Place 100µl of serum-free cultures in the cell control holes, 100 µl of the mixture of serum-free cultures and serum in the serum control holes, and 100 µl of the mixture of serum-free cultures and virus in the back titration holes. After one hour of adsorption in a carbon dioxide incubator at 37°C, remove the serum-virus mixtures thoroughly, and add 100 µl of new serum-free cultures. After seven days of culture, use CPE recognized in the cell surface as an indicator to find the neutralization antibody value.

5 How to calculate the neutralization antibody value

The test is considered to be valid when the titer of the virus fluid used for back titration reaches $10^{1.8}$ - $10^{2.8}$ TCID₅₀/100µl. If one of the two holes in a 2^x-fold dilution row is CPE-positive and the other is CPE-negative, the neutralization antibody value is calculated as 2^x fold, and if both holes are CPE-negative, the neutralization antibody value is calculated as 2^{x-5} fold. (Example: If one of the two holes in a 16-fold dilution row is CPE-positive and the other is CPE-negative, the neutralization antibody value is 16 (2⁴) fold; if both holes are CPE-negative, the neutralization antibody value is 22 (2^{4.5}) fold.) Neutralization antibody values from 1 to 5792 folds are expressed as follows. If the test is performed in a single row, the highest dilution of the CPE-negative is considered the neutralization antibody value.

Notation	Neutralization antibody value (fold)												
Positive numbers	1	1.4	2	2.8	4	5.6	8	11	16	22	32	45	64
Logarithms	2 ⁰	2 ^{0.5}	2 ¹	2 ^{1.5}	2 ²	2 ^{2.5}	2 ³	2 ^{3.5}	2 ⁴	2 ^{4.5}	2 ⁵	2 ^{5.5}	2 ⁶

Notation	Neutralization antibody value (fold)												
Positive numbers	90	128	181	256	362	512	724	1024	1448	2048	2896	4096	5792
Logarithms	2 ^{6.5}	2 ⁷	2 ^{7.5}	2 ⁸	2 ^{8.5}	2 ⁹	2 ^{9.5}	2 ¹⁰	2 ^{10.5}	2 ¹¹	2 ^{11.5}	2 ¹²	2 ^{12.5}

6 Handling of the test results

If positive or pseudo-positive findings emerge in the enzyme immunoassay method or a viral neutralization test, responses should be pursuant to IV-6 of the Guideline.

B Wild boar

This manual is also applied to test wild boars.

Since care must be taken with wild boar samples to avoid contamination with those from domestic pigs, Conventional RT-PCR specified in item 2 of A, restriction enzyme treatment, and electrophoresis after PCR reaction are unnecessary. Commercially available real-time RT-PCR, which is also fitted for multi-sample treatment, shall be considered. In the implementation of real-time PCR tests, commercially available test kits are convenient. As for the reaction condition, refer to the manual included in the kit.

For the test sample, blood (whole blood or serum) shall be used. The specimen shall be prepared according to the manual included in the kit. The blood should be as fresh (with little hemolysis) and clear as possible. Additionally, in cases where it is difficult to collect blood, organs (tonsils, spleens) can be also used. Test specimens shall be prepared according to the manual included in the kit.

If infection is confirmed in the real-time RT-PCR in the initial case of wild boars, samples shall be delivered to NIAH and confirmation tests shall be done.

In case of the survey to measure the effect of oral vaccine in wild boar, apply the antibody test in this Guideline. The range of serum dilution shall be determined depending on the vaccine spreading status.

Outline of the Training Program for CSF Vaccination by Registered Biosecurity Managers

1. Purpose

For CSF vaccination conducted by biosecurity managers provided in Article 12-3-2(1) of the Act on Domestic Animal Infectious Diseases Control (Act No. 166 of 1951; hereinafter referred to as the “Act”) who are registered by prefectural governors as meeting requirements regarding the timeliness and adequacy as specified in III-2-1-(3)-(ii) of the Guidelines (hereinafter referred to as “registered biosecurity managers”), it is necessary to secure a system that enables proper implementation of storage and management of vaccines, vaccination, and recording and reporting of the vaccination performance at farms, in terms of strict management of CSF vaccine and timely and adequate vaccination. Therefore, this outline specifies basic policies on the training program to be implemented by prefectures that have jurisdiction over farms where registered biosecurity managers need to conduct CSF vaccination, so that a system to conduct vaccination can be developed at the farms.

2. Target participants of the training program

Target participants of the training program are biosecurity managers who need to conduct CSF vaccination under the management of prefectural animal health inspectors or approved veterinarians (hereinafter referred to as “trainees”).

3. Basic policies on the training program

(1) Implementation of the training program

It is important for trainees to acquire and improve knowledge and techniques in 3-(3) necessary for proper CSF vaccination. Therefore, prefectures organize this training program so that all trainees can participate in the program without fail before engaging in vaccination.

(2) Method of the training program

In principle, prefectures shall organize the training program on site.

(3) Content of the training program

Content of the training program shall at least include the following items. In preparing and implementing the training content, prefectures shall cooperate and coordinate with veterinarian-related organizations that have specialized techniques and knowledge about pigs, and shall enhance the content to enable trainees to

acquire and improve the necessary knowledge and techniques, especially with regard to CSF vaccination techniques.

(i) Knowledge (basics)

a. Biosecurity of domestic animals

- (a) Status and trend of CSF outbreaks overseas and in Japan (local prefecture in particular)
- (b) Content of the Biosecurity Standards and specific measures to comply with the standards
- (c) Content of measures to prevent CSF outbreak and its spread

b. Basic knowledge of CSF vaccine

- (a) Correct usage of CSF vaccine, vaccine performance, immunization relation with vaccine, relevant laws and regulations on vaccination

(ii) Knowledge (systems)

c. Systems related to CSF vaccination by biosecurity managers

- (a) Content and Notes of the Guidelines for Specific Infectious Disease of Domestic Animals Caused by Classical Swine Fever (requirements for trainees to conduct CSF vaccination, etc.)
- (b) Operating procedures necessary for the system development for vaccination, including preparation of the operating procedure
- (c) Vaccination-related clerical matters to be conducted after starting vaccination, including recording and reporting of CSF vaccination performance
- (d) Notes on strict management of CSF vaccine (proper storage, return of used vaccine containers, etc.)

(iii) Vaccination techniques

d. Method of CSF vaccination

- (a) Specific techniques and notes when conducting CSF vaccination
- (b) Prevention of CSF vaccination accidents and how to respond to the accidents

(iv) Others

Items considered necessary by the prefecture

4. Completion of the training program and registration

(1) Issuance of the certificates of completion

Upon confirming that trainees have completed the course of 3-(3), prefectures shall issue their certificates of completion by reference to the appended form. (Items of the appended form shall be added or removed as necessary when issuing the certificates.)

(2) Note on issuance of the certificates of completion

In principle, trainees who are to conduct vaccination are required to receive the certificate of completion from the prefecture that has jurisdiction over the farm they work for. However, those who have already completed the training program in another prefecture and received the certificate of completion based on this outline and who are recognized by their prefecture to be sufficiently familiar with some of the training items may be exempted from taking those training items in their prefecture at the discretion of the prefecture.

(3) Registration on the name list

When those who have received the certificate of completion in 4-(1) are recognized to meet requirements regarding the timeliness and adequacy, prefectures shall register them as “registered biosecurity managers” and create a name list. This name list shall at least include the following information about registered biosecurity managers: (i) completion number and date of completion; (ii) name, address and date of birth; (iii) name and address of the farm they work for in the prefecture; (iv) name and address of the farm where they engage in CSF vaccination as a registered biosecurity manager in another prefecture; (v) Last date of attendance at the training program based on this outline.

5. Follow-up training after registration

(1) Frequency of the follow-up training

After registered biosecurity managers are registered on the name list, prefectures shall organize training at least once a year in principle, so that registered biosecurity managers can maintain and improve necessary knowledge and techniques.

(2) Method of the follow-up training

In principle, prefectures shall organize the training program on site. However, this does not apply when prefectures judge that it is possible to acquire, maintain, and improve the necessary knowledge and techniques through online training or distribution of materials after considering the level of familiarity of the registered biosecurity manager with the training content in organizing the training of 5-(3).

(3) Content of the follow-up training

Content of the training shall be equivalent to 3-(3). However, registered biosecurity managers who are recognized by the prefecture to have a sufficient understanding and familiarity with some of the training items may be exempted from taking those training items.

6. Change in the information in the name list

If there is any change in the information in the name list of registered biosecurity managers, registered biosecurity managers shall notify the prefecture that has jurisdiction over their farm accordingly.

7. Removal from the name list

- (1) If registered biosecurity managers fall into any of the following circumstances and there is no improvement through the guidance from the prefecture, they shall be removed from the name list managed by the prefecture, and their certificates of completion shall be promptly returned to the issuing prefecture. Their certificates of completion shall expire upon removal from the name list.
 - (i) If they have not taken this training program, which needs to be taken at least once a year in principle.
 - (ii) If they no longer meet the requirements for permitting the use of vaccines based on Article 50 of the Act.
 - (iii) If other inappropriate circumstances occur at their farm in terms of strict management of CSF vaccines and timely and adequate vaccination, such as failure to record and report the vaccination performance and the amount of used vaccine, and inappropriate management of vaccines.
 - (iv) If the prefecture determines that they should be removed from the name list, such as when they have been sentenced to a fine or severer punishment.
- (2) If the registered biosecurity managers removed from the name list are registered in other prefectures, their removal shall be reported to those prefectures.

Calculation Method of Appraised Value of Pigs

1 Fattening pigs

(1) Basic method of calculating appraised value

Introduction price of original livestock + fattening cost (production cost per day x rearing days)

(2) Calculation method of introductory price of original livestock and fattening cost

(i) The introductory price is the cost required for introducing original livestock and is confirmed by a purchase slip

(ii) When an original livestock is born at the farm or the introductory price cannot be confirmed, a delivered price shall be used and the introductory price shall be calculated by multiplying the production cost of the fattening pig in the livestock product production cost in the latest year by 9/100.

(iii) As for the production cost per day, subtract the total production cost by the childbirth price and divide it by the fattening period (average sales month age), then multiply the cost by 50/100 to calculate the production cost per day in the previous period (from birthdate to 70 days) and calculate the production cost per day in the latter period (from 71 days to the time of shipment) by multiplying 130/100.

(iv) The rearing days marks the number of days from the introduction of original livestock in case of the introduction of livestock and from the birthdate in case of the original breeding/fattening consistent management, to the day on which affected animals or suspected affected animals are determined.

[Reference] Production cost per day (2011 Livestock Product Production Cost Survey)

- Delivered price (national average)

Total production cost 31,903 yen x the percentage of cost required for producing a piglet to the total pork production cost: 9% = 2,871 yen

- Production cost of fattening pig per day (national)

(whole production cost 31,903 yen - childbirth price 2,871 yen)/fattening period 6.4 months x 30.4 day)

= 149 yen

- production cost per day (0-2.3 month old) : 50% of production cost per day = 75 yen

- late production cost per day (2.3-6.4 month old) : 130% of production cost per day = 194 yen

[E.g.] Evaluation at the shipment of fattening pigs (6.4 month old)

[If introducing 100-day-old piglets]

Introductory price*: production cost per day x rearing days

15,220 yen + (194 yen x (6.4 - 3.3 months) x 30.4 days) = 33,503 yen

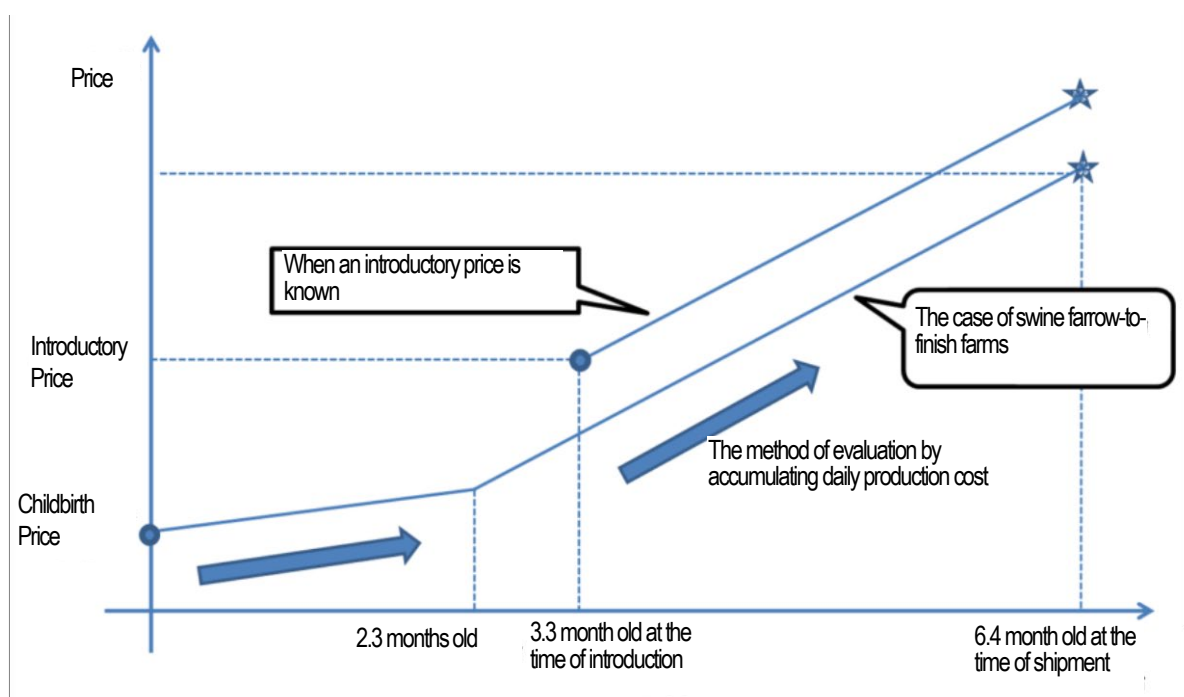
* In this calculation example, the introductory price is set using agricultural price statistics.

* [In case where there is no introductory price due to breeding/fattening consistent management]

Birth price: production cost per day x rearing days

$$2,871 \text{ yen} + ((75 \text{ yen} \times 2.3 \text{ months}) + (194 \text{ yen} \times 4.1 \text{ months})) \times 30.4 \text{ days} = \boxed{32,295 \text{ yen}}$$

Fattening pigs



2 Breeding sows

[Breeding sows (nulliparous)]

(1) Basic method of calculating appraised value

Introductory price of original livestock + rearing cost (production cost per day x rearing days) + price for conception

(2) Introductory price of original livestock and rearing cost

- (i) The introductory price is the cost required for introducing original livestock and confirmed by a purchase slip
- (ii) When the introductory price cannot be confirmed or when the original livestock is born at the farm, it shall be the average trading price (during the most recent one-year period) of a pig equivalent to the original livestock (pig with similar race, usage (suitable for breeding)) at a domestic animal market normally used by the domestic animal owner.
- (iii) The production cost per day shall be that of a fattening pig in the production cost

survey.

- (iv) The rearing days marks the number of days from the introduction of original livestock to the date of determining affected animals or suspected affected animals.
- (v) In case of conception, around 20% of the value of the mother pig should be added (limited to cases where a veterinarian can confirm the conception in a pregnancy test).

[Breeding sows (para)]

(1) Basic method of calculating appraised value

Standard price at the first childbirth x estimated index/100 + price for conception

(2) Standard price at the first childbirth and the method of calculating estimated index

(i) The standard price at the first childbirth shall be calculated via the following formula:

Introductory price of original livestock + average rearing cost to the first childbirth month age (production cost per day x rearing days)

Besides, the introductory price of original livestock and rearing cost shall be calculated using the same method as for a breeding sow (nulliparous).

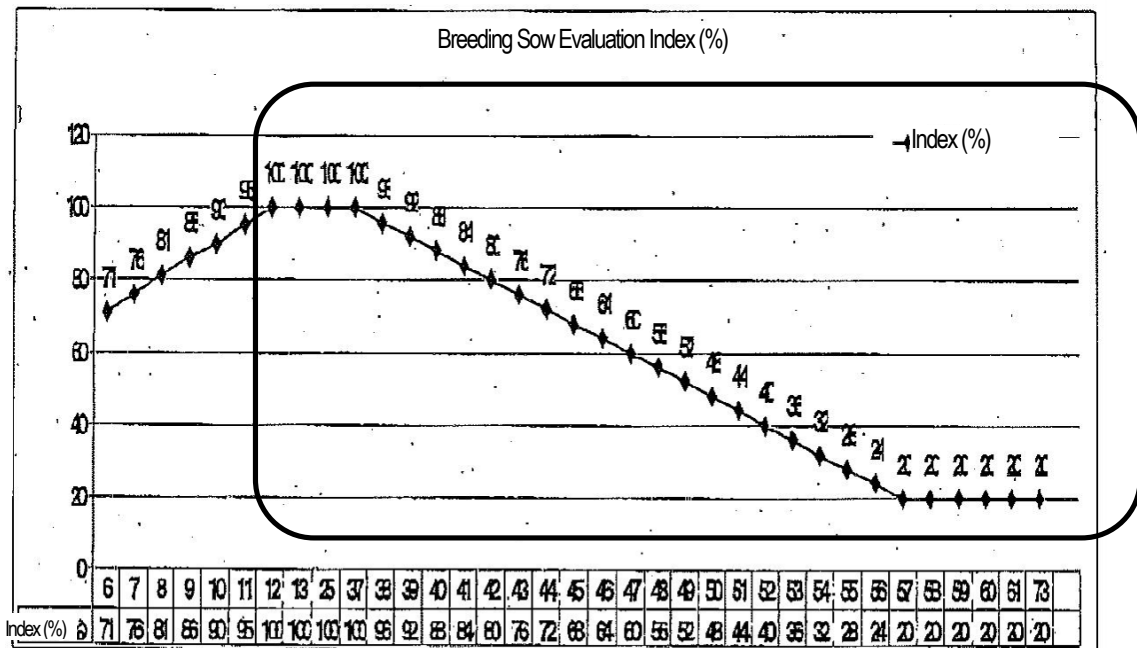
(ii) The estimated index is the index of decrease in value due to deterioration over time, assuming a value of 100 at the first childbirth and applying the prefectural livestock mutual aid payment system for calculation.

(iii) The production cost per day shall be that of a fattening pig in the production cost survey.

(iv) In case of conception, around 20% of the value of the mother pig should be added (limited to cases where a veterinarian can confirm the conception in a pregnancy test).

[Reference] Estimated index used by Miyazaki Pref. at the Time of Outbreak of Foot-and-Mouth Disease (Breeding Sow)

Every prefecture has its own similar index.



[e.g.] Evaluation of breeding sows at the time of first childbirth (about 12 months old)
 Introductory price: (production cost per day x rearing days) Addition for conception
 {55,280 yen (the average purchase price of breeding sow (hybrid)) + 194 yen x (12 -
 3.3 months) x 30.4 days} x 1.2 = 127,779 yen

(Note)

Appended Form 1 – Appended Form 13 (refer to the attachment)