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ZOOSANITARY INFORMATION FOR THE RECOGNITION OF BAJA CALIFORNIA AS A STATE FREE FROM CLASSICAL SWINE FEVER (CSF)

1. OBJECTIVE

Request the renewal of accreditation of the Planta TIF No. 95 Unión Sanitaria de Productos Alimenticios, S.A. de C.V. (TIF plant Number 95 Food Products Sanitary Union) in order to start up again the exportations of fresh and frozen pork to Japan.

2. INTRODUCTION

In 1980, in Mexico, the National Campaign against classical swine fever was established and the respective Resolution was published.

In 1983, the 58 municipalities of the northern part of the state of Sonora were freed from this disease, nevertheless, it was until October of 1991 when the whole state received the official recognition of the totality of the state, when the other 11 municipalities were freed from the disease. On this same date, the states of Baja California and Baja California Sur were officially recognized as officially free from classical swine fever. This was helped by the fact that they are located in a privileged geographical zone that situates the states between two large natural barriers and due to the joint participation of the Federal Government, the state governments and the productive and industrial sectors.

From then on, in agreement with the official legislation and the current standards, the epidemiological surveillance activities have increased in order to maintain the zoosanitary status of states free from the disease.

Even though 43% of our territory, made up of 14 states, is free from the disease; the objective of this document is to obtain the recognition of Baja California as a state free from CSF by the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan, based upon the criteria used by MAFF for the recognition of the states of Chihuahua, Sonora and Yucatan as free from the disease, taking into consideration that these states have borders only with other states that are recognized by Mexico as free from CSF.

3. CLASSICAL SWINE FEVER IN BAJA CALIFORNIA BACKGROUND

The last outbreak of classical swine fever in the state was detected in March 1985 in the municipality of Tijuana. The vaccination against this disease was banned from 1986 on, and the eradication phase was begun on that same year. The state was officially declared free from this disease on the 16th of October 1991 by means of a resolution published in the Official Federal Gazette (Annex 1).

4. THE GEOGRAPHICAL LOCATION OF BAJA CALIFORNIA STATE

Baja California is a border state, since on the north it is contiguous with the United States of America (California and Arizona); on the northeast with Sonora; on the east with the Gulf of California, to the south, with Baja California Sur and the west with the Pacific Ocean. In Annex 2 the location of Baja California is shown in the Mexican territory.

The Gulf of California to the east and the Pacific Ocean to the west, as well as the Sonora desert in San Luis Rio Colorado, constitute effective natural barriers for all zoosanitary activities in the state of Baja California, while the United States of America, Sonora and Baja California Sur, are regions free from CSF. These geographical advantages and borders are observed in Annex 2.

5. SWINE INDUSTRY IN BAJA CALIFORNIA

5.1 Swine population

In the state of Baja California there are 15,251 pigs in commercial farms and 6,961 pigs in 548 backyard premises. The distribution of the pig population per DDR (Rural Development District) is shown in the following table.

DDR	No. of Technical farms	Pig population	No. of premises	Population of Backyard Pigs
Ensenada	4	6,082	356	4273
Rio Colorado	6	9,169	192	2,688
TOTAL	10	15,251	548	6,951

5.2 Production systems

The swine production systems in Mexico, including Baja California are detailed in point 1.2 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

Technically developed farms in the state we are referring to have as main activities the finishing and reproduction of pigs. In order to cover swine product demand, the state production is sent to local markets.

6. STATE VETERINARY SERVICES INFRASTRUCTURE

6.1. Federal structure

The Ministry of Agriculture, Livestock and Rural Development (SAGAR) has a federal state agency in Baja California within which is the Livestock State Underagency of the Ministry that has the Animal Health and Rural Development programs amongst others. The organization chart is shown in Annex 3.

The state is divided into 2 Rural Development Districts (DDR) with the following technical personnel assigned to the SAGAR.

DDR	MVZ (Doctors of Veterinary Medicine and Animal Husbandry) Personnel
001.- Ensenada	8
002.- Rio Colorado	5
TOTAL	13

Within this structure there are 9 plant and animal sanitary inspector's offices and 7 land mobilization control booths with 23 inspectors that have a 24 hr, 365 days per year schedule.

For the sacrifice and processing of animals and their products, in Mexico there are 51 Federal Inspection Type (TIF) establishments that comply with the requirements established by the different countries to which their products are exported and they have official veterinary doctors. In the state of Baja California there are 3 TIF plants, which are listed in the following table:

TIF PLANT NUMBER	PLANT TYPE
54	Swine slaughter
95	Swine boners
120	Bovine cattle slaughter

*The three TIF plants in the state have official veterinary doctors.

6.1.1. National Agricultural and Animal Quarantine System

The description and activities of the National Agricultural and Animal Quarantine System are detailed in the point 2.1 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

As is explained in the reference document the National Agricultural and Animal Quarantine System is made up of the services of **Domestic Quarantine** and **Exterior Quarantine**.

In Baja California, the inspection booths that control the entrance and exit of animals, products and byproducts of agricultural and animal origin in the state which we are making reference to and that constitute the **domestic quarantine** services are the following:

Name	Location	Personnel*
Miguel Aleman	Highway San Luis Rio Colorado border with Sonora	4
Km 57	Highway Victoria Station Km 57 V. of Mexicali	2
San Matias	Highway V. of the Trinity, town of San Matias	4
Santo Tomas	Km 54 Highway San Vicente, town of Santo Tomas	4
San Quintin	Km 188.5 Highway Ensenada San Quintin	3
Parallel 28	Transpeninsular Highway, community land ownership Emiliano Zapata	4
San Felipe	Km 1.5 Highway San Felipe	2

Note: The personnel, of the booths, is ascribed to the Ministry of Agricultural and Animal Development of the State Government.

Besides that, the state of Baja California has the following line baths that in a zoosanitary emergency may be made to function as control booths:

Name	Location	Personnel
Parallel 28*	Transpeninsular Highway	4
Saint Quintin	Km 188.5 Highway Ensenada San Quintin	3
Saint Thomas	Km 54 Highway San Vicente, town of Santo Tomas	4

*Quarantine station.

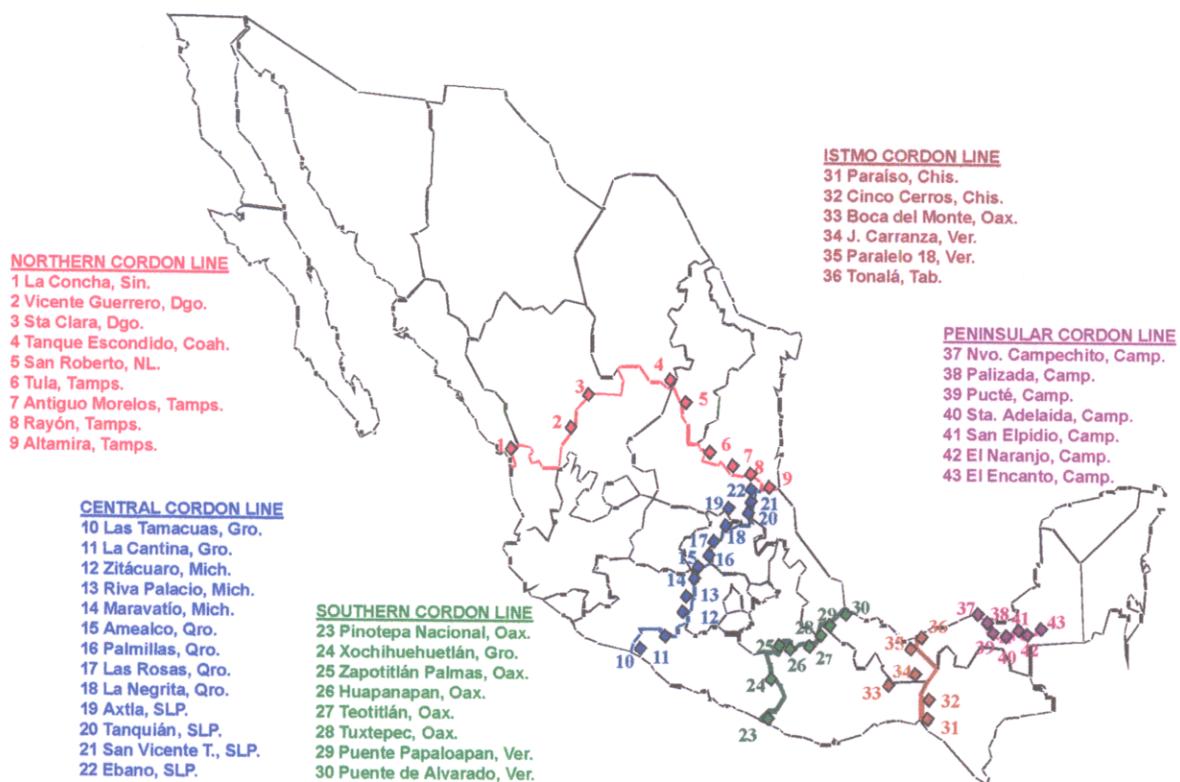
Note: The personnel, of the booths, is ascribed to the Ministry of Agricultural and Animal Development of the State Government.

The map that shows the booths and plant and animal inspectors in the state is shown in Annex 4.

As part of the National Agricultural and Animal Quarantine System and in support of the **domestic quarantine**, there are regional quarantine lines. The description of these lines is more detailed in point 2.1. of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

The quarantine line that gives protection to the northern states of the country including Baja California is the **Northern Region Quarantine Line** and it is formed by the following inspection points:

NAME	LOCATION
La Concha	Km 960 Fed. Highway 15, limit between Nayarit and Sinaloa
Vicente Guerrero	Fed. Highway 45 Durango - Fresnillo, Zacatecas.
Santa Clara	Fed. Highway 49 Cuernavaca- Durango- Fresnillo, Zacatecas
Tanque Escondido	Fed. Highway 45 Saltillo-Zacatecas, limit between Zacatecas and Coahuila
San Roberto	Highway Matehuala- Saltillo, Coah. Monterrey, N.L. Junction San Roberto
Booth No. 21 (Tula)	Highway 101 Victoria - San Luis Potosi
Antiguo Morelos	Km 3.5 Highway 85 Antiguo Morelos - Mante
Booth No. 30 (Rayon)	State Highway Manuel - Ebano, San Luis Potosi
Altamira	Km 24.5 Highway 180 Tampico - Manuel station



The activities of the **exterior quarantine** performed to prevent the entrance of diseases into the country are described in point 2.1 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

The exterior quarantine infrastructure in the state of Baja California is integrated by the following fitozoosanitary inspectorships:

**FITZOZOOSANITARY INSPECTORSHIPS
BORDERS, AIRPORTS, SEA PORTS**

Inspectorship	Border	Airport	Sea Ports
Los Algodones	*		
Mesa de Otay	*		
Ensenada			*
Nuevo Mexicali	*		
Mexicali	*	*	
Tecate	*		
Tijuana	*	*	

6.2 State structure

In the state of Baja California, the Ministry of Agricultural and Animal Development, through the Department of Development and Animal Health and the State Committee of Animal Development and Animal Protection (CFPP), of Baja California, S.C. play an important role within the infrastructure for animal health since in coordination with the Federal Government through the Livestock State Underagency of SAGAR, the activities of control, prevention and eradication of diseases through zoosanitary campaigns that are considered to be of national interest are performed. The structure of animal health in the State Government is detailed in Annex 5 and that of the CFPP in Annex 6.

6.3 Legislation

The Federal sanitary legislation related to CSF that is of compulsory application for the state of Baja California is described in point 2.4 of the Annex 7, of the Document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

Also, the state of Baja California has the Agricultural and Animal and Forestry Act of the State of Baja California, which confers authority in animal health aspects.

7. SURVEILLANCE

7.1 Active Surveillance

As is described in point 3.2.3 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999 the epidemiological surveillance of CSF in the country consists of the performance of routine sampling in commercial and backyard premises, with a minimum sample size as determined by SAGAR.

In 1999, 33,081 samples were obtained for the diagnosis of CSF that came from the free states, of these 2,072 came from the state of Baja California.

The surveillance for CSF in the state we are making reference to from 1997 on is shown in the following table:

Type of Farms	1997		1998		1999		2000*	
	Sample size	Samples received						
Technical Farm	767	667	767	1,080	767	708	590	938
Backyard Premises	1,470	1,571	1,470	1,545	1,470	1,364	1,295	1,240
TOTAL	2,237	2,238	2,237	2,625	2,237	2,072	1,885	2,178

*Until the 28th of October, 2000.

Note: the total samples were processed in the National Animal Health Diagnostic Center (CENASA).

7.2 Passive Surveillance

The passive surveillance is described in point 3.2.3 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

7.3 Diagnostic Laboratories

There are National Reference Laboratories that perform the epidemiological surveillance in free zones, and these are CENASA and the laboratory of the Mexico-United States Commission for the Prevention of Foot and Mouth Disease and other Foreign Animal Diseases (CPA). Also, there are 16 laboratories distributed throughout the country that are approved for the diagnosis of classical swine fever. These laboratories notify from the initial suspicion and/or outbreak confirmation and form part of the National Epidemiological Surveillance System. The state of Baja California sends the epidemiological surveillance samples for this disease to CENASA.

7.4 Biosafety, outbreak control, mobilization of animals, their products and byproducts.

These points are detailed in the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999, in points 3.2.5; 3.2.6 and 3.2.8 respectively.

7.5 Emergency response

The program for the surveillance of foreign diseases, as well as the emergency mechanisms to cover the three lines of sanitary defense is amply described in point 3.2.9 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

In Baja California, the State Animal Health Emergency Group (GEESA) was formed in October, 1993 and it is formed by 15 members, most of which are doctors of veterinary medicine and animal husbandry. The function of a GEESA is to act swiftly in an efficacious and organized manner whenever an animal health emergency may occur.

8. FEDERAL INSPECTION TYPE SYSTEM

8.1 Background

The background for the TIF system are mentioned in point 4.1 of the document "Zoosanitary Information Regarding Classical Swine Fever in Mexico", November, 1999.

8.2 Planta TIF No. 95 Unión Sanitaria de Productos Alimenticios, S.A. de C.V. (TIF plant Number 95 Food Products Sanitary Union)

Types of products to be exported:

- ◆ **Natural primary meat cuts.**

This enterprise was established in 1989 and obtained its certificate as a Federal Inspection Type plant in 1991.

The plant implemented the HACCP (Hazard Analysis and Critical Control Points) program since June 1998. In January 1999, due to the fact that the plant has been authorized to export meat to the United States of America since 1996, the plant was required to comply with that which is specified in "The Final Rule; HACCP systems and the reduction of pathogens" of FSIS (Food Sanitary Inspection System) of the USDA (United States Department of Agriculture). It must be mentioned that the plant has two official veterinary doctors.

The plant we are referring to also has beside the HACCP other biosafety measures of international standards such as the SSOP program (Sanitation Standard Operating Procedures) (Annex 9), quality control program (Annex 10), GMP (Good Manufacturing Practices) (Annex 11) and with a rodent control program (Annex 12).

The state of Baja California is not self sufficient in the production of pork, and therefore this enterprise is supplied with fresh carcasses from the United States of America and Canada, as well as the state of Sonora, Mexico, all considered as free from classical swine fever. The carcasses that are

imported by Baja California come from TIF plants and/or authorized plants accredited for exportation to Mexico and that have the USDA-FSIS (Food Safety Inspection Service) certificate. The referred to plant has the production capacity of up to 750 carcasses per day.

The products that come from this plant are marketed in Baja California and Baja California Sur and it has exported to Japan since 1995.

The exportations of the TIF 95 plant to Japan since 1995 to September of 2000 are shown in the following table.

Year	Kg per year
1995	96,169
1996	106,927
1997	111,303
1998	0
1999	557,728
2000(until September)	202,621
TOTAL	1,074,748

9. CONCLUSIONS

- ◆ The State of Baja California has a privileged geographical situation from the zoosanitary point of view since it is surrounded by free from classical swine fever areas and very important natural barriers.
- ◆ The No. 95 TIF plant USPASA has exported to Japan since 1995, without any records of it having implied a zoosanitary risk for that country.
- ◆ The raw materials used for the process, come exclusively from internationally recognized free zones (State of Sonora, Mexico, Canada and the United States of America).
- ◆ The plant complies with the international sanitary standards of HACCP, SSOP, and GMP.

Taking into consideration what was expressed above, we consider that the pork exports from the No. 95 TIF Plant USPASA (Union Sanitaria de Productos Alimenticios, S.A. de C.V.) located in a free from classical swine fever do not constitute a zoosanitary risk for Japan, and therefore on the basis of this technical document the renewal of accreditation of the No. 95 TIF Plant is requested for exportation of pork cuts to Japan.

A N N E X S

1	Copy of the Official Federal Gazette where the State of Baja California is declared free from CSF.
2	Location of Baja California in the Mexican Republic.
3	Federal Structure of the SAGAR in the state of Baja California.
4	Animal Health Surveillance and Control System.
5	Structure of the Ministry of Agricultural and Animal Development of the Government of the State of Baja California.
6	Organization Chart of the Committee for Animal Protection and Development in Baja California.
7	Copy of the Mexican Official Standard NOM-037-ZOO-1995, National Campaign against Classical Swine Fever.
8	HACCP Program of the No. 95 TIF Plant.
9	SSOP Program of the No. 95 TIF Plant.
10	Quality Control Program of the No. 95 TIF Plant.
11	GMP Program of the No. 95 TIF Plant.

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MINISTRY OF AGRICULTURE AND WATER RESOURCES

DECREE by the means of which the territories of the States of Baja California, Baja California Sur and the southern zone of Sonora are declared free from hog cholera (classical swine fever).

On the left hand corner a seal with the National Emblem that says: Mexican United States.- Presidency of the Republic.

CARLOS SALINAS DE GORTARI, Constitutional president of the Mexican United States, in the use of the authority that is granted to me by the fraction I of the 89th Article of the Political Constitution of the Mexican United States and on the basis of that which is established in Articles 1st, 2nd, 65th and 66th, fractions I, II and III, 69th and 70th of the Plant and Animal Health Act of the Mexican United States, 35, fractions II and VI of the Federal Public Administration Organic Law, and

WHEREAS

The Resolution issued by the Minister of Agriculture and Water Resources on the 7th of March, 1980, published in the Federal Official Gazette on the 25th of the same month and year, established the national campaign against classical swine fever, as well as the respective program, that was published on the same date.

By Presidential Decree on the 20th of December of 1982, published in the **Federal Official Gazette** on the 10th of January 1983, 58 municipalities of the north of Sonora were declared free from classical swine fever.

The Federal Government, in coordination with the governments of the States of Baja California, Baja California Sur and Sonora, has developed and executed activities for the diagnosis, control, eradication and surveillance of this disease, same that up until this date are possible to be evaluated according to the objectives, goals and guidelines established in the program of the national campaign against hog cholera.

In agreement with the technical data given to the Federal Government, the evaluation of the respective activities in the States of Baja California, Baja California Sur and the southern region of Sonora, confirm that in its diagnosis, the Ministry of Agriculture and Water Resources performed the inspections necessary to detect and locate the disease, as well as the

intensity of the same. The methods that were employed were serum and tissue sampling and their respective laboratory analysis and all the results came out negative to the presence of the disease in the three States.

In the States of Baja California, and Baja California Sur and the southern region of Sonora the eradication phases were begun in 1980, 1986, and 1989 respectively and the last outbreaks were in the first cited State in the month of March, 1983, covering an area know as Valle de Santo Domingo in the Municipality of Comondú; in the second entity, in the month of march, 1985, in the Municipality of Tijuana; and in the southern area of the last entity, in 1985. The steps that were taken to control and eradicate the outbreaks were: farm quarantine and disinfecting, slaughter of pigs and movement control of pigs, products, byproducts and waste, that come from other entities that are in control phase of the disease. In the same manner the vaccination against this disease was banned in 1980, in Baja California Sur, and in 1989 in Baja California and in the 11 Municipalities that conform the southern part of Sonora.

Control measures shall continue to be applied to hog animals, products and byproducts that come from other States that are under control, in order to avoid the reappearance of the disease.

At the international level hog cholera is known as classical swine fever, and therefore, I have issued the following

DECREE

ONLY ARTICLE.- The territories of the States of Baja California, and Baja California Sur and the southern region of Sonora, that includes the following municipalities: Alamos, Bacum, Cajeme, Empalme, Etchojoa, Guaymas, Huatabampo, Navojoa, Quiriego, Rosario and Yecora, are declared free from hog cholera (classical swine fever).

TRANSITORY

ONLY .- This Decree shall come into effect on the day of its publication in the Federal Official Gazette.

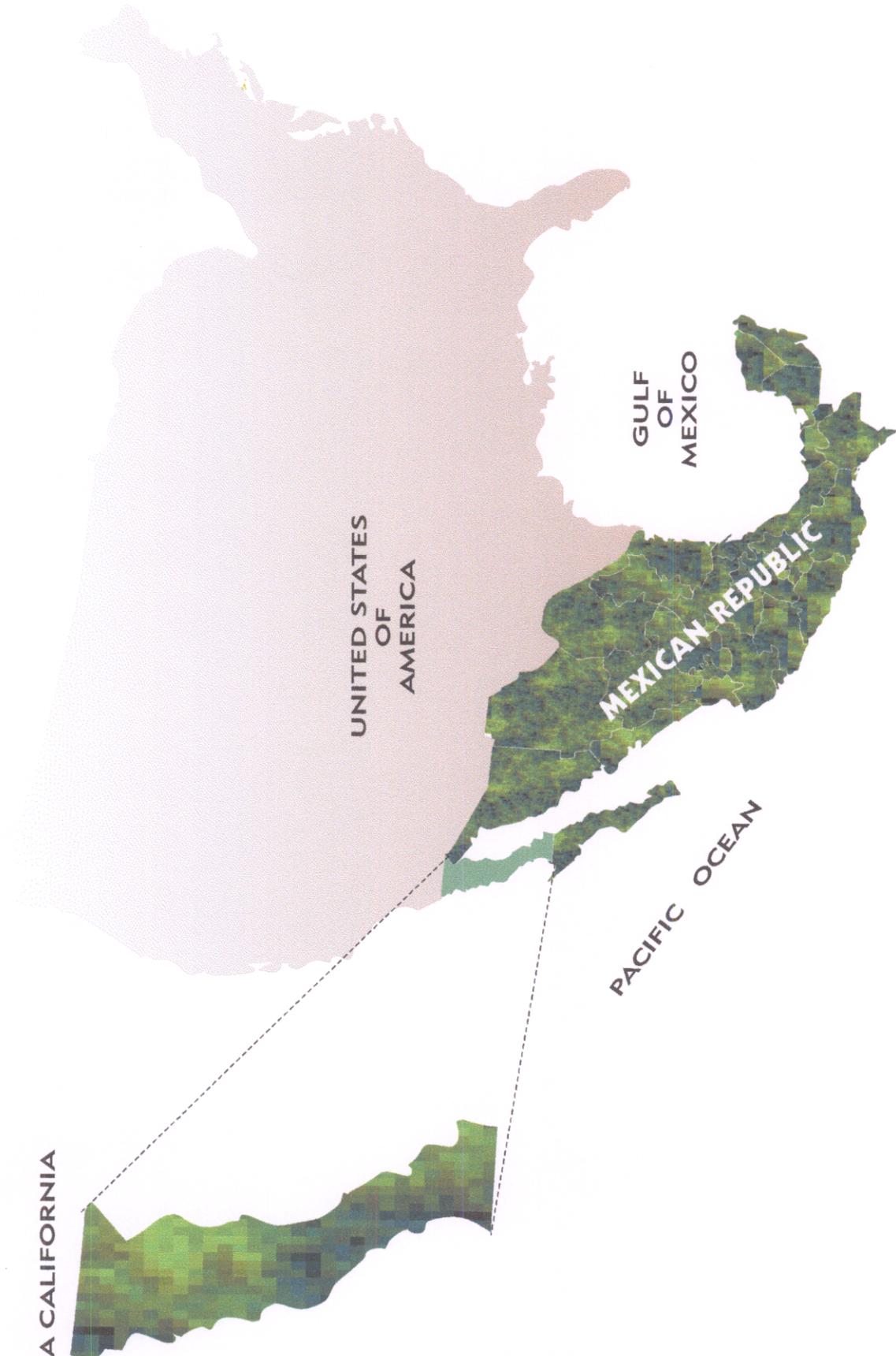
Issued in the Residency of the Federal Executive Power, Mexico City, Federal District, on the fourteenth day of the month of October nineteen hundred and ninety one.- **Carlos Salinas de Gortari.-** Initials.- The Minister of Agriculture and Water Resources, **Carlos Hank Gonzalez.-** Initials.

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BAJA CALIFORNIA



**UNITED STATES
OF
AMERICA**

**GULF
OF
MEXICO**

MEXICAN REPUBLIC

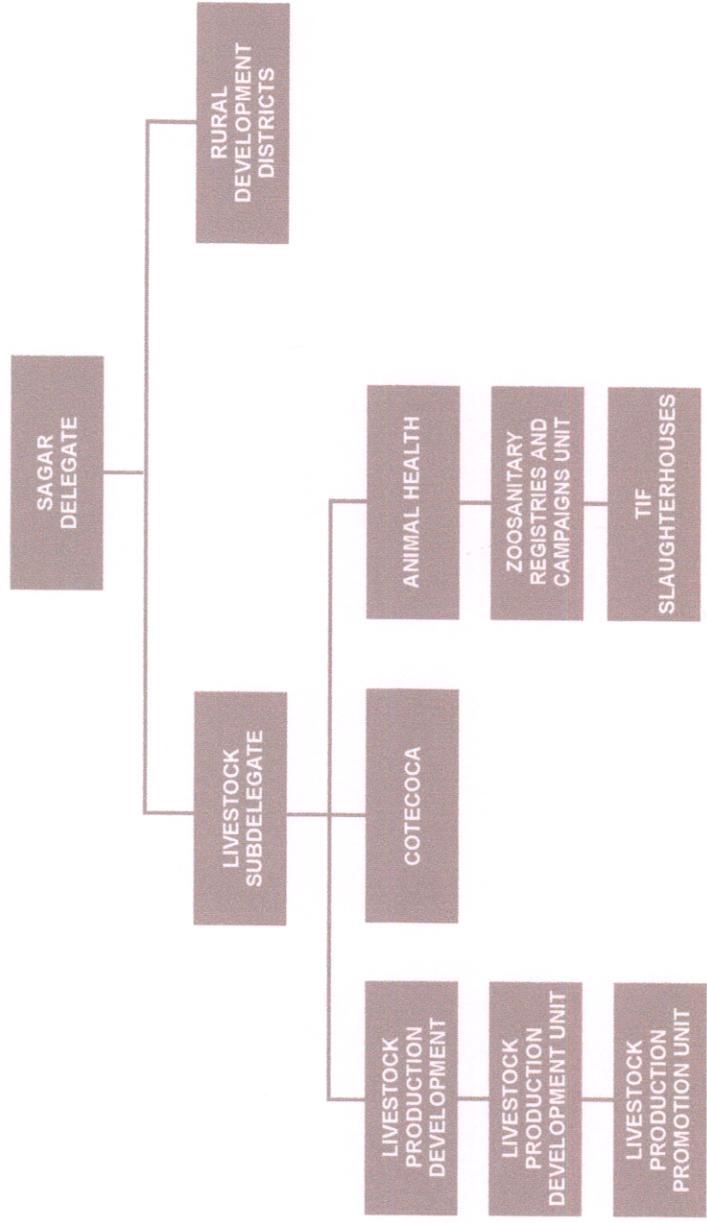
PACIFIC OCEAN

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3

FEDERAL STRUCTURE OF SAGAR IN THE STATE OF BAJA CALIFORNIA



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3

CONTROL AND SURVEILLANCE SYSTEM IN ANIMAL HEALTH STATE OF BAJA CALIFORNIA



CHECKPOINTS

- 1 MIGUEL ALEMÁN
- 2 SAN FELIPE
- 3 KM. 57
- 4 SAN MATÍAS
- 5 STO. TOMÁS
- 6 SAN QUINTÍN
- 7 PARALELO 28

FITZOOSANITARY INSPECTION POINTS

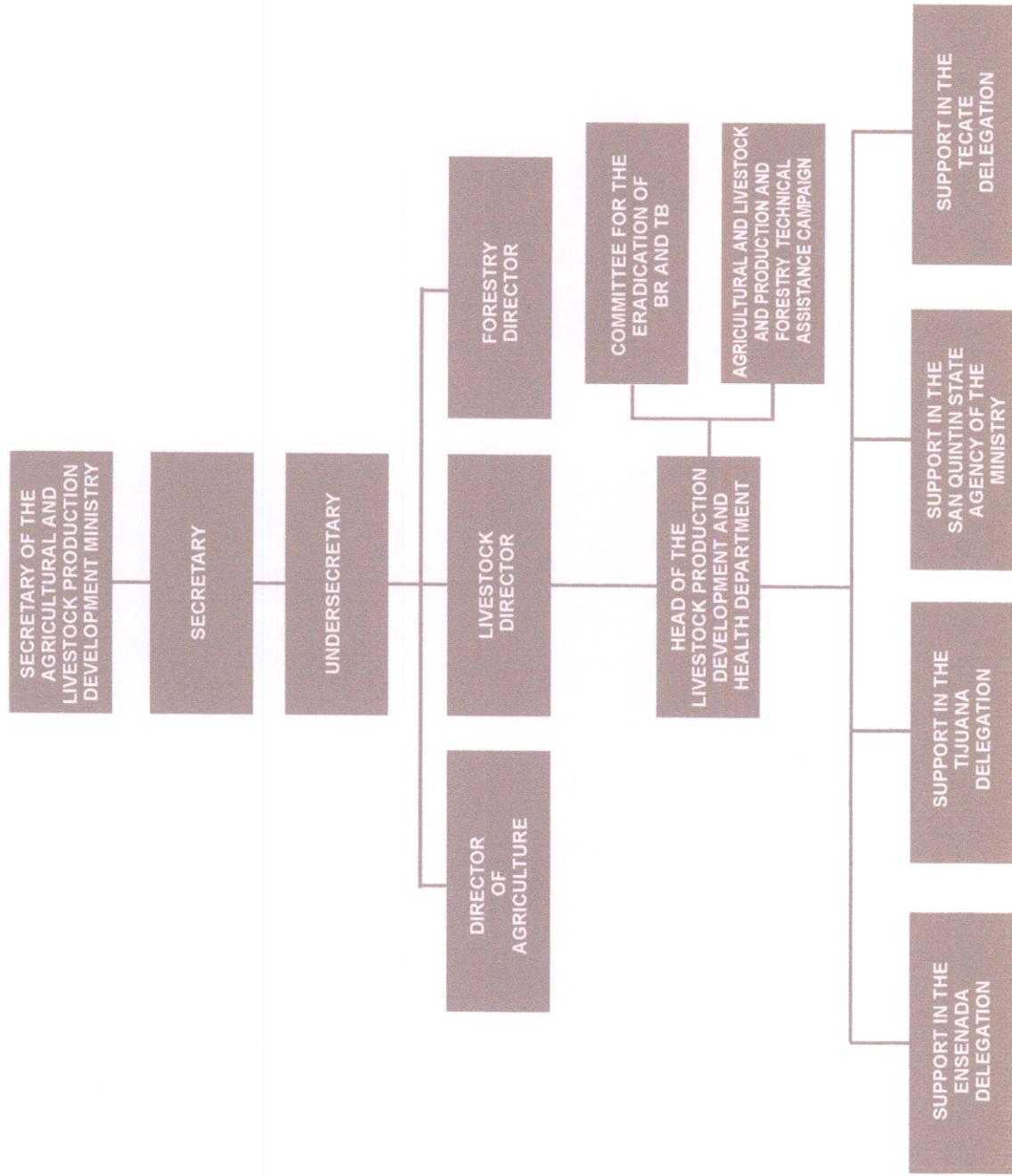
- A MEXICALI
- B NUEVO MEXICALI
- C LOS ALGODONES
- D MESA DE OTAY
- E TIJUANA
- F TECATE
- G ENSENADA

1

2

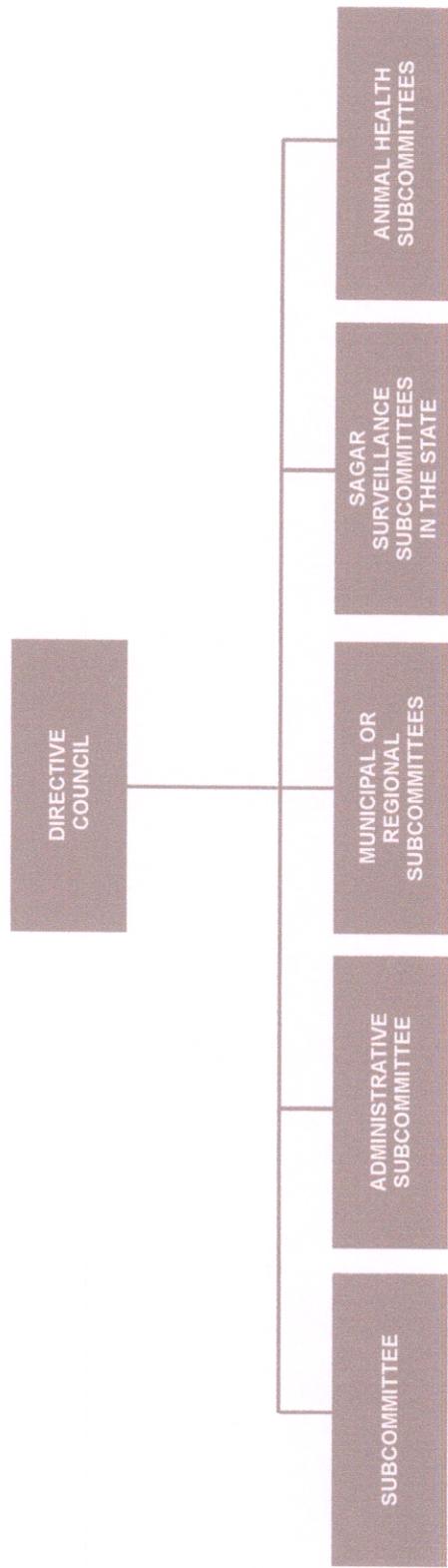
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STRUCTURE OF THE AGRICULTURAL AND LIVESTOCK PRODUCTION DEVELOPMENT MINISTRY OF THE GOVERNMENT OF BAJA CALIFORNIA STATE





STATE COMMITTEE FOR LIVESTOCK PRODUCTION DEVELOPMENT
AND PROTECTION OF BAJA CALIFORNIA



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Ministry of Agriculture and Rural Development

Official Mexican Standard NOM-037-ZOO-1995, National Classical Swine Fever Campaign

On the margin a seal with the national coat of arms and the words United Mexican States – Ministry of Agriculture and Rural Development

OFFICIAL MEXICAN STANDARD NOM-037-ZOO-1995, NATIONAL CLASSICAL SWINE FEVER CAMPAIGN

ROBERTO ZAVALA ECHAVARRRÍA, Legal Counsel of the Ministry of Agriculture and Rural Development, based on Articles 1 and 3, Article 4, Section III, and Articles 12, 21, 31, 32, 33 and 34 of the Federal Animal Health Act; Article 38, Section II, and Articles 40, 41, 43, and 47, Section IV of the Federal Measurements and Standards Act; Article 35, Section IV of the Federal Public Administration Organic Law; and Articles 2, 3, 5, 9, 17, 18, and 19 of the Regulations of the United Mexican States Plant and Animal Health Act, as it applies to the movement of animals and animal products; and Article 12, Sections XXIX and XXX of the internal regulations of this Agency, hereby issues the following:

WHEREAS

It is the function of the Ministry of Education and Rural Development to promote livestock production and, consequently, to control and eradicate pests and diseases which, like classical swine fever (CSF), affect the national livestock industry, both as regards production levels and product quality; and

Because of the economic importance of swine production in our country it ranks second in terms of tons of meat produced in the country, and that with the purpose of increasing production and improving the quality of pork products it is necessary to control and eradicate this disease, thus allowing the national swine industry to operate under better health conditions, and that for this reason a program must be established with the collaboration of all sectors involved in this activity, and consequently to seek the support and collaboration of said sectors; and

CSF is a highly communicable disease that spreads rapidly in susceptible swine, with variable morbidity and mortality that depend on the virulence of the virus strain and the degree of susceptibility of the herd; and

CSF represents the most important limitation to the development of the national swine industry and restricts its exportation potential since many countries interested in acquiring pork produced in Mexico make commercial deals depend on freedom from CSF.

For these reasons, on October 11, 1995, a draft version of Official Mexican Standard NOM – 037 – ZOO -1995, National Classical Swine Fever Campaign, was published in the **Federal Gazette** and the answers to the comments in regard to this Draft were published in the same **Federal Gazette** on August 26, 1996.

That, by virtue of the legal procedure set forth in the above paragraph, certain points of the Draft were revised, as deemed necessary, and the present Official Mexican Standard

NOM – 037 – ZOO -1995, National Classical Swine Fever Campaign has now been issued.

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1. Objective and Scope

- 1.1 Observance of this Standard is mandatory throughout the country, and its objective is to diagnose, prevent, control and eradicate classical swine fever in the entire nation and is to be applied in all areas of the swine industry.
- 1.2 Oversight of this Standard is the responsibility of the Ministry of Agriculture and Rural Development and of State governments, within the scope of their respective powers and territorial limits, according to the relevant coordination agreements.
- 1.3 Enforcement of this Standard is the responsibility of the General Animal Health Directorate and of the Delegate of the Ministry of Agriculture and Rural Development, within the scope of their respective powers and territorial limits.

2. References

For proper enforcement of this Standard, the Official Mexican Standards listed below must be consulted:

NOM-003-ZOO-1993, Criteria for the Operation of Approved Test Laboratories in the Field of Animal Health.

NOM-007-ZOO-1994, National Aujeszky Disease Campaign

NOM-036-ZOO-1996, Classical Swine Fever Vaccine Minimum Requirements.

3. Definitions

For the purposes of this Standard, the following Definitions will apply:

- 3.1 **Focal Area:** Area in which swine with classical swine fever virus infections and all other swine, inputs, material and equipment in contact with any such, are subject to observation and isolation.
- 3.2 **Perifocal Area:** Area in which surveillance is in effect with the purpose of detecting the presence of classical swine fever.
- 3.3 **Outbreak:** Presence of one or more CSF cases, proven by immunofluorescence diagnosis, and/or an immunoenzyme assay test, with the possibility of spreading within the same production unit, region, or zone.
- 3.4 **Cold Chain:** Procedure by which the quality and efficacy of biological products is assured from the point of origin to the point of use.
- 3.5 **Campaign:** The National Classical Swine Fever Campaign
- 3.6 **Case:** A hog or group of hogs with positive test results for classical swine fever by means of an immunofluorescence test and an immunoenzyme assay.
- 3.7 **Vaccination Certificate:** An official document issued when CSF vaccination of hogs is satisfactorily completed.
- 3.8 **Free Farm Certificate:** An official document that shows that the swine production unit has complied with the diagnostic tests and biosecurity measures specified by the campaign.
- 3.9 **Control:** Set of zoosanitary measures with the purpose of reducing the incidence or prevalence of classical swine fever in a given geographical area.
- 3.10 **Quarantine:** Zoosanitary measure based on isolation, observation and restriction of movement of animals, animal products and byproducts, wastes and implements used in the swine industry because of the suspicion or existence of classical swine fever.
- 3.11 **Precautionary Quarantine:** Zoosanitary measure based on isolation, observation and restriction of movements of animals, animal products and byproducts, wastes and implements used in the swine industry because of the suspicion of classical swine fever (CSF). Applied on a temporary basis until obtention of laboratory test results that either confirm or rule out a diagnosis of CSF.
- 3.12 **Organic Wastes:** All residues derived from the activity of the production unit, like droppings, urine, fetuses, carcasses, viscerae, blood, bedding and feed.
- 3.13 **Disinfection:** Procedure carried out after cleaning up with the intention of destroying the pathogens that cause animal diseases and applied to the premises, vehicles and various objects that may be directly or indirectly contaminated by the animals or animal products.

- 3.14 **Directorate:** The General Animal Health Directorate.
- 3.15 **Diagnosis:** A study based on the analysis of the set of clinical signs found in the swine and that makes it possible to suspect or confirm the presence of classical swine fever, the latter by means of laboratory tests.
- 3.16 **Epizootic:** A disease (classical swine fever) that appears in swine for a given period with a higher than expected frequency.
- 3.17 **Eradication:** Total elimination of classical swine fever from a given geographical area.
- 3.18 **Leftovers:** Left over food or slops used to feed hogs.
- 3.19 **CSF:** Classical Swine Fever
- 3.20 **Classical Swine Fever, formerly called "Hog Cholera":** A highly contagious disease caused by a virus of the togaviridae family, that generally follows an acute course but may present in atypical forms. In the typical form the hogs may exhibit anorexia, fever of 41°C or higher, muscle tremors, prostration, intestinal constipation alternating with diarrhea, mucopurulent discharge from the eyes and skin erythema. In the final stages of the disease there may be nervous disorders, paralysis and, lastly, death.

In the atypical form caused by so-called low virulence strains, the signs observed may include the following:

- Congenital tremor, also called congenital myoclonia or jumping pigs which is found in newborn piglets or a few hours after birth and is characterized by trembling of the head, neck, back, and hind legs.
- Disease of the newborn by contagion from unvaccinated dams. These piglets die of acute CSF without the disease affecting the sows and by healthy hogs vaccinated with a modified live virus, with the characteristic that only young animals are affected.

This definition does not exclude the existence of other forms of CSF.

- 3.21 **Focus:** This term designates the appearance of one or more CSF cases on a hog farm.
- 3.22 **Incidence:** Number of new CSF cases during a specific period in a given geographical area.
- 3.23 **Standard:** The Official Mexican Standard for the National Classical Swine Fever Campaign.
- 3.24 **Approved Veterinarian:** A professional recognized by the Ministry of Agriculture and Rural Development to carry out official activities in animal health matters.
- 3.25 **Official Veterinarian:** A professional on the staff of the Ministry of Agriculture and Rural development.

- 3.26 **Biosecurity Measures:** The set of procedures implemented to prevent introduction of the CSF virus to swine production units; or the exit and destruction of said virus when a unit becomes infected.
- 3.27 **National CSF Emergency Plan:** The official document issued by the Directorate for implementation in CSF free zones and zones under eradication.
- 3.28 **Prevention:** A set of zoosanitary measures based on epizootiological studies and intended to prevent the presence of CSF.
- 3.29 **Procedure or Phase:** a set of activities carried out in a sequential strategic way and necessary to eradicate CSF.
- 3.30 **Products:** Goods resulting from a production process and which consist of achieving the principal object of the swine farming operation.
- 3.31 **Biological Products:** Biological reagents, sera, vaccines, and microbial genetic material of animal origin that may be used in the diagnosis, treatment or prevention of animal diseases.
- 3.32 **Region:** A geographical area whose boundaries are to be determined by the Directorate and where the installation of temporary or permanent quarantine measures should be guaranteed in case of appearance of CSF outbreaks. One or more regions may be set up in a given zone as considered advisable by the Directorate to ensure the efficiency of the quarantine measures taken.
- 3.33 **Ministry:** The Ministry of Agriculture and Rural Development.
- 3.34 **CSF Suspects:** This term is applicable to the hog or group of hogs exhibiting clinical signs of any of the red swine diseases, including CSF.
- 3.35 **By-product:** Obtention of a good derived from a principal objective and which may be a processed good or a waste product of the hog farm.
- 3.36 **SPU:** Swine production unit
- 3.37 **Vaccine:** A vaccine lot checked and approved by the Directorate.
- 3.38 **Official Vaccination:** The procedure of applying a biological product used to prevent and control the presence of CSF and which is to be supervised and/or effected by an official or approved veterinarian.
- 3.39 **Control Zone:** A given geographical area in which zoosanitary measures are applied with the intention of reducing the incidence or prevalence of CSF in a specific period.
- 3.40 **Eradication Zone:** A given geographical area in which preventive zoosanitary measures are implemented after eliminating the CSF virus and in which epizootiological surveys are carried out by the Directorate to check that there has been

no CSF in the past twelve months, and that the procedures for this campaign phase have been duly completed.

- 3.41 **Free Zone:** A given geographical area from which CSF has been eliminated, or in which no positive cases have been found for 24 months, according to the Directorate's epizootiological surveys and records.

4 General Provisions.

- 4.1 The campaign is basically directed to domestic swine, regardless of the kind of farming operation involved. However, as regards wildlife, the Ministry will determine the species to which this standard is to be applied, for the time and in the places indicated, and for whatever reasons it is deemed necessary.
- 4.2 The responsibility for the campaign's operation in all the States should be shared by the Federal Government, the State Governments, the Livestock Protection and Promotion Committees, the Swine Farmer Unions and Associations, producers, owners, dealers, carriers, businesses, industrialists and other individuals and organizations connected to or involved in swine production, as appropriate according to the activities of each.
- 4.3 The protection of CSF free or under eradication states, regions or zones, will be carried out through a strict control of the movements of swine or pork products or byproducts.
- 4.4 The use of untreated leftovers or slops for feeding pigs is forbidden.
- 4.5 State governments should participate in the establishment, remodeling, adapting, construction and operation of animal health checkpoints within and between states. The provisions and procedures of this Standard should be applied in such checkpoints as regards the movement of swine and pork products and byproducts.
- 4.6 The state Livestock Protection and Promotion Committees, the CSF Campaign Subcommittees, the Regional Livestock Producer Unions and local Swine Farmer Associations, and the process industry sector connected with the country's swine industry, acting in coordination with the Ministry and state governments, will participate in the consolidation of Campaign actions, including actions related to social communication.
- 4.7 The entry of swine, pork products and byproducts from controlled zones or states into CSF free or eradication zones or states is forbidden, except when otherwise authorized by the Ministry.
- 4.8 Acting in coordination with the state government and based on a risk assessment study and an analysis of veterinarian services in the state, such as: diagnostic laboratories, animal movement checkpoints, State Emergency Animal Health Groups (GRESA), contingency funds and epizootiological surveillance systems, the Ministry may establish CSF free or eradication regions or zones within a state or groups of states in the control phase.

4.9 This Standard will remain in effect until the entire country is declared free of CSF.

5 CAMPAIGN PHASES

5.1 The Campaign is composed of Control, Eradication and Free phases, which may be in effect at the municipal, regional or state levels. For the purposes of this standard, the terms Phase and Zone are equivalent.

5.2 Control Phase;

For a state or zone to be considered in the control phase, the following requirements must be met:

- a) Intensive vaccination in high risk and high swine population zones;
- b) Control of movements of swine and of pork products and byproducts;
- c) Existence of an effective system for epizootiological surveillance, CSF foci reporting, laboratory diagnosis facilities and outbreak control;
- d) The use of leftovers or slop to feed swine is forbidden unless they have been cooked for thirty minutes at 100°C;
- e) In this phase the Directorate may implement a monitoring and sentinel program based on evidence of CSF epizootiological behavior; and
- f) Existence of an SPU and swine population census.

5.3 Eradication phase.

For a state or zone to move from the CSF control phase to the eradication phase, the requirements set forth in point 5.2 must be fulfilled, in addition to:

- a) Suspension of marketing and use of CSF vaccines.
- b) Absence of CSF foci or outbreaks during the past 12 months.
- c) Existence of epizootiological surveillance systems and the Animal Health Emergency Mechanism.
- d) Reinforcement of the quarantine control system through the establishment and operation of check points along the main routes of entry to the state or region.
- e) Existence of an emergency insurance program or contingency fund for CSF outbreaks, with the participation of swine producers and the state and Federal governments.
- f) The use of leftovers or slops to feed swine is forbidden.
- g) Implementation of a sentinel program.
- h) Six months after a zone has moved from the CSF control phase to the eradication phase a representative sample of swine in the area should be taken. The sampling program will be planned and carried out by the Ministry, working in coordination with producers and state governments.

The samples may be tested using any of the techniques specified in point 8 of this standard.

The Ministry's Delegate's Office in the state should draw up a list of all the swine farms in the state with the following information: name of the farm, location, owner, type of operation and population in each state, and marketing information.

Based on evidence of the CSF epizootiological behavior, the Directorate may, at its discretion, omit one or more of the procedures indicated to officially recognize an eradication zone.

5.3 Free Phase.

- a) For a State, zone or region in the eradication phase to move into the free phase, in addition to having completed the actions described in the above point, it should have been in the eradication phase for twelve months, and should have complied with the absence of disease, foci or outbreaks during the past twenty-four months, and should have carried out whatever epizootiological surveys are indicated by the Directorate.
- b) The verification procedures to be used in this Campaign include serological sampling surveys every six or twelve months, which are to be scheduled and carried out by the Ministry working in coordination with state governments and private individuals.

The samples may be tested by means of any of the techniques specified in point 8 of this Standard.

A zone or state will be declared free of CSF by means of a Resolution of the Secretary of Agriculture and Rural Development published in the **Federal Gazette**.

- c) The presence of a CSF outbreak in a free zone will cause temporary loss of a free-zone status, which may be regained when the Directorate, based on epizootiological studies, declares the absence of CSF virus.
- d) The use of leftovers or slops to feed swine is forbidden.

6 Vaccines

6.1 The only vaccines used in the Campaign shall be those that are checked and authorized by the Ministry and are to be used in high-risk zones, as determined by the Ministry.

6.2 Vaccine handling.

A point to be taken into account for appropriate immunization of swine is the handling of the vaccine and its conservation in a so-called cold chain.

Vaccines should be handled according to the following indications:

- a) CSF vaccines should be stored in refrigerators or cold rooms at a temperature between 2 and 4°C, and this temperature should be maintained during the vaccine's transportation.

As part of their refrigeration equipment, the facilities of CSF vaccine distributors should include thermographs and standby electric power equipment.

- b) Refrigeration between 2 and 4°C.

- c) Prevention of exposure to sunlight.
- d) Prevention of freezing.
- e) Open vials or vials with broken lids should not be stored.
- f) Extreme temperature fluctuations should be avoided.
- g) Any blow to the vials should be avoided.
- h) The manufacturer's indications should be precisely followed.
- i) A fresh needle should be used for each application.
- j) Disposable syringes should be used.
- k) No alcohol or disinfectants should be used as they inactivate the virus.
- l) CSF vaccine distributors should have an approved veterinarian with the responsibility of keeping a record book with data on the quantity and the number of the vaccine lots in storage; to verify that thermograph readings are within the temperature range specified in paragraph a) of this point, the lot expiration date, and monitoring of the vaccines' distribution.
Careful handling of vaccines will ensure protection of animals from CSF.

6.3 Vaccination Calendar:

The vaccination calendar to be implemented by hog owners will be determined by the approved veterinarian based on the geographical zone, the form of the disease, and the type of vaccine used.

6.4 Vaccination Record Book and Certificates

6.4.1 In order to obtain a vaccination certificate, each farm should have a vaccination record book authorized by the Ministry State Delegate's Office which should contain the following information:

- a) Date of vaccination
- b) Total number of animals in each stage: sucklings, breeding sows, sires, growth and replacement.
- c) Trademark of the vaccine used, lot number and expiration date.

The farm should keep a copy of all vaccination certificates.

6.4.2 For rural swine production, vaccination certificates should contain the following information:

- a) Sequential page number.
- b) Number of vaccinated pigs
- c) Owner's name.
- d) Location of the farm, specifying the State and Municipality.
- e) Effective duration of the certificate.
- f) Name and signature of the person who vaccinated the animal
- g) Name, seal and signature of the approved veterinarian
- h) Hogs vaccinated for CSF may only be slaughtered after 15 days from the date of vaccination.

6.4.3 The vaccination certificates will have an effective duration of six months from the date on which the hogs were vaccinated, and this date is to be recorded on said certificates.

The certificates will be supplied by the state delegate's office of the Ministry and are to be used by official or approved veterinarians.

The certificates will be given to persons authorized by official or approved veterinarians to perform vaccination; and the sequential page numbers they are given, and the amount of vaccine they acquire will be noted.

The vaccination certificates will be turned over by the person who vaccinates the animals to the hog owner. The forms should be filled in by the vaccinator and signed by an official or approved veterinarian. The original will be given to the owner and the veterinarian will keep a copy for his or her records, control, supervision and evaluation of the report.

6.4.4 Each vaccinator should keep a vaccination book in which the information below is to be recorded:

- a) Name
- b) Address
- c) Number of hogs vaccinated and their zootechnical function
- d) Sequential page number of the certificates.

6.5 Vaccination Certificates

In high risk zones, as determined by the Ministry, swine farmers should keep the vaccination certificates so that they may request the zoosanitary certificate whenever they need to move their hogs. The vaccination certificates should be attached to the zoosanitary certificate.

The data on the vaccination certificate should be used to make out the zoosanitary certificate, so that the information will be the same. The applicant's name on the zoosanitary document should be the same as the name on the vaccination certificate.

Whenever animals or breeding stock are transported from high risk zones, as determined by the Ministry, group vaccination certificates will be issued for each lot of animals to be transported, and these should be stamped when they are delivered. The vaccination certificate should be stamped with a seal and should be attached to the zoosanitary certificate. The two documents should be presented whenever requested by the Directorate or the verification units for the purposes of an animal health inspection and documentation review.

When the swine transported from high risk zones, as determined by the Ministry, arrive at their destination, the person in charge of the shipment should deliver these documents and the vaccination certificates to the consignee. In the case of animals for slaughter, both documents should be delivered to the slaughterhouse veterinarian, or in his or her absence, to the manager or the person designated by the latter so that slaughter may be authorized. It is the obligation of the consignee of the swine shipment to comply with all procedures required for livestock movements.

6.6 Whenever CSF appears in a SPU in a control zone, it will be necessary to vaccinate and/or revaccinate all the swine on the farm, under the supervision of the official and/or approved veterinarian, in order to boost the immunity of exposed animals. Moreover, if

there is direct exposure to the CSF virus, CSF vaccines should be applied in the affected or perifocal area.

- 6.7 CSF vaccines should not be marketed or used in free or eradication zones and whenever the presence of vaccine lots is detected, the state Delegate's Office should seize and destroy such vaccines.

7. Epizootiological surveillance

CSF epizootiological surveillance consists of the following:

- Outbreak reporting;
- Epizootiological investigation; and
- Monitoring and sentinel programs.

7.1 Outbreak Reporting.

The activities described below should be carried out in order to create a systematic communications process to report any suspected outbreak of CSF and/or red swine diseases, as well as for control and eradication of classical swine fever.

Official and approved veterinarians in the zone, swine producers, vaccinators, and other persons directly involved should report any suspicious case of CSF or red swine diseases personally, by phone, telegraph or fax to the Directorate, the Ministry State Delegate's Office, the United States - Mexico Commission for Prevention of Foot and Mouth Disease and other Exotic Animal Diseases, state authorities, and local swine producer associations.

The report should contain the data indicated below:

- a) Name of the suspected disease
- b) Date of onset of the problem
- c) Name of the farm and the owner involved
- d) Location of the farm: town, municipality and state
- e) Affected species
- f) Total number of animals on the farm and number of sick and dead animals
- g) Zootechnical function: breeding, growing or mixed
- h) Type of farm operation: intensive, extensive or mixed
- i) Production type other than swine: meat, milk, eggs, dairy products, wool, honey, milk-meat, wool-meat, others
- j) Entry of animals to farm: date, place of origin and number
- k) Departure of animals from farm: destination and number
- l) Control measures taken: vaccination, chemotherapy, quarantine, others.
- m) Name of the person who makes the report
- n) Telephone number for reporting results

All reported SPUs will be officially investigated and the appropriate control measures will be applied, in addition to establishing a timely diagnosis to rule out red diseases like pasteurellosis, salmonellosis, erysipelas, and other viral, bacterial, parasitic, deficiency or toxic-origin diseases that may be clinically and pathologically confused with CSF.

7.2 Epizootiological Investigation

7.2.1 Epizootiological surveillance systems are a requirement for zones that enter the CSF free or eradication phase.

7.2.2 All zones admitted to the CSF free or eradication phase should have a special CSF active surveillance group made up of veterinarians engaged exclusively in CSF surveillance.

7.2.3 The special CSF active surveillance group should be formally hired by organized producers; and state or government official veterinarians may potentially be members of such groups.

7.2.4 These groups are to be supervised by the Ministry's veterinarians.

7.2.5 The special CSF active surveillance groups will have the following functions:

- a) To continuously make the rounds of swine farms and rural and back yard operations, based on predetermined routes, in order to detect the existence of health problems, if any, that might be CSF.
- b) To conduct surveys, meetings and discussions with swine farmers and persons or groups connected to swine production in order to gather and provide information about CSF in the zone.
- c) To collect organ or serum samples, as the case may be, whenever there is a suspicion of a health problem that might be CSF or whenever sentinel animal studies are being made.
- d) To immediately notify the Ministry or the state government authorities of any suspicion of CSF.
- e) To establish coordination with slaughterhouses, TIF establishments, diagnosis laboratories and animal movement checking stations, in order to obtain timely information and to follow up as necessary.
- f) To periodically inform the Ministry about the actions carried out.

7.3 Monitoring and Sentinel Program.

7.3.1 Serological monitoring of unvaccinated animals is to be carried out in CSF free, eradication or control zones, with the purpose of detecting the presence or absence of CSF evidence.

7.3.2 Working in coordination with state governments and producers, the Ministry shall determine the monitoring protocols, the sample size, and any special aspects and timing of the monitoring activity. The Ministry shall also follow up on results.

7.3.3 In all cases, the Ministry shall indicate the diagnosis laboratory or laboratories to which the samples are to be sent.

7.3.4 Sentinel program activities will be implemented in CSF control zones, in order to detect the presence or absence of the CSF field virus, both in zones where vaccination is practiced and those where it is not.

7.3.5 Working in coordination with the state government and producers, the Ministry shall determine the sentinel program protocols and shall follow up on results.

7.3.6 In all cases, the Ministry shall indicate the diagnosis laboratory or laboratories to which the samples are to be sent.

8. Diagnosis

The diagnosis of CSF in the case of outbreaks or suspected outbreaks, as well as for epizootiological monitoring, should be established by an official laboratory or one approved by the Ministry.

8.1 Laboratory tests to diagnose suspected CSF cases or outbreaks.

Because of the many variants in the clinical signs, blood values, and morphopathological changes that may be found in CSF cases, in the preliminary phase the diagnosis should be based on immunofluorescence tests on the tonsils of at least two hogs suspected of having CSF and on the observation of clinical signs and pathological changes characteristic of CSF.

The final or confirmatory diagnosis should be based on identification of the viral antigen by means of direct or indirect immunofluorescence tests, immunoenzyme assays, and the observation and description of gross and microscopic changes.

Any of the tests listed below may be selected for the diagnosis:

8.1.1 Direct immunofluorescence of specimens of the following organs:

- a) Tonsils (2 cm long x 0.5 cm. wide).
- b) Spleen (2 cm long x 0.5 cm. wide).
- c) 2 parotid or mandibular lymph nodes (1 cm. in diameter x 1 cm. thickness)

The specimens should be kept at a refrigeration temperature between 2 and 4°C.

The direct immunofluorescence test should be performed:

- With tonsil sections made with a cryostat at -20°C. The sections should be from 4 to 2 micras thick.
- After being fixed in acetone, the sections are to be stained with a CSF conjugate with a working titre of 1:4.
- The test should be read and interpreted under a fluorescence microscope.
- In order to make sure that the conjugate is in optimal condition, in addition to the target tonsil sections, a positive and negative control should be used, staining them at the same time as the target tonsil.
- The results of this test are to be expressed in terms of positive or negative for the presence of CSF virus.

8.1.2 Indirect immunofluorescence or virus isolation using tonsil, spleen, lymph node or kidney tissue.

The virus isolation or indirect immunofluorescence test is to be carried out as follows:

- A 10% suspension of the tonsil, spleen or lymph node specimens in minimal essential medium will be used;
- An amount of 0.5 ml. of the above suspension will be inoculated in PK-15 cell line cultures or a culture of another line with similar characteristics. The test tubes or slides that contain inoculated cells are to be incubated for 60 min. at 37°C.
 - The inoculum will be discarded and maintenance medium added after rinsing three times with maintenance medium.
 - This is to be incubated for two to five days at 37°C, after which it is washed three times with a buffer phosphate solution.
 - After this point, the procedure described earlier for the direct immunofluorescence technique as regards fixation and application of the conjugate will be followed.
 - The results of this test are to be expressed in terms of positive or negative for the presence of CSF virus.

8.2 Immunoenzyme assay techniques (ELISA) for detection of CSF virus antibodies in blood serum samples:

These tests can be used for the purpose of epizootiological monitoring.

a) The sample should have the following physical characteristics:

- Minimum amount of serum: 5 ml.
- Color: light yellow.
- Translucent.
- Absence of suspended particles.
- Odorless.

b) The serum should be placed in previously sterilized glass or plastic tubes or vials.

c) Each sample should be clearly identified with a sequential number written with indelible ink.

The samples should be kept in refrigeration between 2 and 7°C, or frozen at -5°C.

8.2.1. Immunoenzyme assay tests are to be carried out with serum samples from pigs suspected of having been exposed to the CSF virus. The only purpose of this test is to indicate the presence or absence of CSF virus specific antibodies.

8.2.2. In order to detect CSF antibodies with the immunoperoxidase technique, the following are required:

- a) Cell culture microplates with a single layer of the PK-15 cell line or some other cell line with similar characteristics infected with CSF virus.
- b) Porcine serum with CSF antibodies, a positive control and a CSF antibody-free porcine serum (negative control).
- c) "G" - peroxidase protein conjugate.
- d) Peroxidase indicator and substrate and buffer solutions.

This test must be read with an inverted microscope. Since it is a qualitative procedure, its results should be expressed as positive or negative for the presence of CSF antibodies. Sera that are found to be positive should be subjected to a viral interference or Newcastle disease virus exaltation test in order to determine the CSF antibody titre.

8.2.3 The ELISA technique for detection of CSF antibodies requires the following:

- a) Cell culture microplates with a single layer of the PK-15 cell line or some other cell line with similar characteristics infected with CSF virus.
- b) Porcine serum with CSF antibodies, a positive control and a CSF antibody-free porcine serum (negative control).
- c) Enzyme labeled anti-species immunoglobulin.
- d) Substrate.

This test is read with an ELISA scanner. The results are expressed only as positive or negative for CSF antibodies. Positive results should be subjected to a viral interference or Newcastle disease virus exaltation test in order to determine the CSF antibody titre.

8.3 Quantification of CSF virus specific antibodies in serum samples of hogs suspected of exposure to the CSF virus with the Newcastle disease virus exaltation method requires the following material:

- a) CSF suspect hog serum.
- b) CSF virus pathogen strain.
- c) Newcastle disease virus pathogen strain.
- d) Suspension of a primary culture of hog testicle or of a cell line with similar characteristics.

The result of this test is expressed as the neutralizing antibody titre, based on a record of the reciprocal of the highest serum dilution that provides complete inhibition of the cytopathic effect in one of two inoculated tubes.

8.4 An alternative to the quantification of CSF specific antibodies is the viral interference test with vesicular stomatitis virus or some other virus with cytopathic effect.

The latter test is carried out with the following material:

- a) CSF suspect hog serum.
- b) CSF virus pathogen strain.
- c) Pathogen strain of the vesicular stomatitis virus, or of another virus with cytopathic effect.

- d) Suspension of a primary culture of hog testicle or of a cell line with similar characteristics

- The result of this test is expressed as the neutralizing antibody titre.

8.5 Histopathology

The histopathology test can only be used for support, and not as a definitive test to establish a final diagnosis based on samples of the following organs:

- a) Half a brain cut lengthwise.
- b) Tonsil, lymph nodes, kidney, liver and spleen.- At least 0.5 to 1 cm. wide by 1 to 2 cm. long, and 0.5 to 1 cm. thick.

The samples should be fixed in a 10% formaldehyde buffer solution in a proportion of 10 parts of solution to 1 part of tissue.

The histopathology test is done on histological sections of the following organs processed with the routine technique of paraffin inclusion and stained with eosine-hematoxiline: a section of anterior, mid, and posterior brain; tonsil; lymph nodes; kidney; liver and spleen. The final result of the histopathology study should include one or more morphopathological diagnoses based on the description of microscopic changes.

9. Quarantine Measures.

For purposes of this Standard, quarantine measures are applied to living and dead animals, animal products and byproducts, and any food or inanimate object that represents an animal health risk.

- 9.1 Whenever there is any suspicion of CSF, the Ministry shall immediately impose a precautionary quarantine, which may be lifted if the official results of its investigation indicate that there is no CSF. Otherwise, the quarantine shall be definitive.
- 9.2 In the case of a CSF outbreak, confirmed by laboratory and epizootiological evidence, the Ministry shall impose a definitive quarantine.
- 9.3 The quarantine shall cover the focal and perifocal area, according to the Ministry's judgment, based on the epizootiological investigation carried out for the case in question.
- 9.4 In control zones, the definitive quarantine may be lifted after 20 days have passed without appearance of new CSF outbreaks or suspicion of any such.
- 9.5 In free or eradication zones, the quarantine shall be lifted after thirty days from completion of the zoosanitary measures and depopulation procedures set forth in point 10 of this standard.

- 9.6 In all cases, the quarantine should be officially imposed or lifted, indicating in the respective documents the appropriate zoosanitary measures and schedule.
- 9.7 Hogs and pork products and byproducts that fail to comply with the provisions of this Chapter will be held at checkpoints, and the Ministry will determine their final destination.
- 10. Outbreak Control.**
- 10.1 Control Zones.
- 10.1.1 Whenever CSF is suspected, the Ministry should be immediately notified after which, the Ministry, through the official veterinarians responsible for animal health, shall establish a precautionary quarantine in the focal and perifocal area, and shall conduct the appropriate investigation.
- 10.1.2 Upon confirmation by laboratory and epizootiological evidence of the existence of CSF in a zone or farm, the following zoosanitary measures should be applied on an emergency basis[
- a) The definitive quarantine of the exposed or affected premises in the focal and perifocal area, based on a prospective and retrospective epizootiological investigation that should be carried out at once by official veterinarians of the Ministry, with strict observance of biosecurity measures to prevent the spread of the disease.
 - b) Inventory of the affected, exposed and at risk swine population.
 - c) Focal and perifocal vaccination.
 - d) Sanitary disposal of dead animals by incineration or burial.
 - e) Killing of sick animals and sanitary disposal of the remains by incineration or burial.
 - f) Application of cleansing and disinfecting procedures of the infected units, as well as of vehicles and inanimate objects that represent an animal health risk.
 - g) Strict control over the issue of zoosanitary certificates for the movement of swine and pork swine products or byproducts in the focal and perifocal area, checking in every case that they do not originate in affected or exposed units. All zoosanitary certificates must be extended by official veterinarians.
 - h) Reinforcement of epizootiological surveillance in the focal and perifocal area.
- 10.1.3 All states in the country that may be at risk, according to the epizootiological investigation of the outbreak, should be notified of the existence of a CSF outbreak.
- 10.1.4 The quarantine shall be lifted after 21 days have passed without the presence of evidence or suspicion of CSF.

10.2 Free and Eradication Zones.

10.2.1 Whenever CSF is suspected, the Ministry should be immediately notified, after which, the Ministry, through the official veterinarians responsible for animal health, shall establish a precautionary quarantine in the focal and perifocal area, and shall conduct the appropriate investigation.

10.2.2 Upon confirmation by laboratory and epizootiological evidence of a CSF outbreak in a zone or farm, the following should be done:

- a) The Ministry should activate the National CSF Emergency Plan.
- b) The entire country should be immediately notified of the outbreak.
- c) Arrangements should be made for the participation and concerted action of state government and Ministry technicians and officials, producer organizations, livestock protection and promotion committees and subcommittees, swine farmers, industrialists connected to the swine production industry, carriers, and the general public, with the purpose of establishing an emergency committee, led by the Ministry, for eradication of the outbreak.

10.2.3. Emergency Zoosanitary Measures:

- a) Definitive quarantine of the affected, exposed and at risk farm or farms in the focal and perifocal area, as determined by the prospective and retrospective epizootiological investigation that should be immediately carried out in the zone, to be conducted by official veterinarians and with strict observance of biosecurity measures to prevent the spread of the disease.
- b) Determination of the extent of the outbreak in terms of the geographical area and swine population, based on procedures specified by the Ministry in the National CSF Emergency Plan. At the same time, sanitary disposal of the dead animals should be effected, and diseased animals should immediately be killed and subjected to sanitary disposal. Sanitary disposal should be carried out by incineration, burial or as determined by the Ministry.
- c) After having determined the extent of the outbreak in terms of geographical area and swine population, the financial and technical feasibility of depopulating affected and exposed units will be determined.
- d) If the extent of the outbreak, as determined, indicates that it is not technically and financially feasible to depopulate the affected or exposed units, the studies indicated by the Ministry shall be carried out to identify the boundaries of the affected area which will then be moved back to the control phase, implementing the procedures set forth in point 10.1.
- e) If the extent of the outbreak, as determined, indicates that it is technically and financially feasible to depopulate the affected and exposed units, depopulation will be carried out with the following provisions;

- I. Indemnity payments to affected producers according to the insurance scheme or contingency funds agreed to in each State.
- II. Depopulation procedures as indicated in the national CSF emergency plan.

10.2.4 National CSF Emergency Plan

This plan contains detailed information about the organization and actions that should be taken in case of a CSF outbreak when depopulation is to be carried out.

The CSF emergency plan contains the following points:

- a) Actions taken in the first days after the outbreak is reported.
- b) Quarantines.
- c) Organization of the emergency committee.
- d) Determination of boundaries of the affected area.
- e) Inspection procedures.
- f) Control measures for security of quarantine and protection zones.
- g) Biosecurity of production units.
- h) Movement of swine to slaughterhouse.
- i) Movement of products and byproducts
- j) Packing plans.
- k) Appraisal.
- l) Slaughter.
- m) Clean up.
- n) Disinfection.
- o) Repopulation.

10.2.5 After depopulation and repopulation, six months must pass without any evidence of CSF in order to officially recover the status of free or eradication zone. During this period epizootiological surveillance actions should be continuously and actively carried on.

11. Movements.

The following conditions should be considered and complied with for any movement of swine within the country:

- Origin and destination zones.
- Control zones.
- Eradication zones.
- Free zones.

Reason for movement:

- Breeding stock.
- Fairs and shows.
- Fattening.
- Slaughter.

In order to verify fulfillment of the procedures specified for the movement of swine and pork products and byproducts, the Ministry should put in place an origin -destination verification system and a zoosanitary certificate will always be required.

11.1 Movements of swine will be regulated throughout the country according to the origin and destination zones, the reasons for such movements and the requirements specified below:

a) Origin: Free zone.

Destination: Free or eradication zone

Slaughter:

- Zoosanitary certificate.
- Straps on vehicles only when the means of conveyance goes through control zones or states.

Breeding stock, fattening, fairs and shows:

- Zoosanitary certificate
- Straps on vehicles and isolation for twenty days at the final destination in case of having gone through control states or zones. During isolation CSF serological tests are to be performed.

If the vehicles go through a control zone before returning to the place of origin, they must be washed and disinfected using any of the disinfectants authorized by the Ministry.

b) Origin: Free or eradication zone

Destination: Control zone

Slaughter:

- Zoosanitary certificate
- Straps on vehicles

The State Delegate's Office in the state of destination should be notified in writing and by fax of the following information no more than 48 hours in advance:

- Number of animals moved
- Zoosanitary certificate number
- Name and location of the destination slaughterhouse

Notice should be given by official veterinarians from the state Delegate's Office in the state of origin or by approved veterinarians from the Classical Swine Fever Control and Eradication Campaign.

When a swine shipment arrives at a slaughter plant, whether TIF, private or municipal, all the hogs should be slaughtered within no more than 24 hours.

The state Delegate's Office in the state of destination will ask the official or approved veterinarians in the slaughter plants or, if appropriate, when so indicated by the Ministry, the managers or persons in charge of said plants, to verify that the straps on the shipment vehicles have not been removed and then to remove them. They must also examine the sanitary documentation that refers to the shipment and should save the straps that were removed and the documents.

Breeding stock, fattening, fairs and shows:

- Zoosanitary certificate.
- Straps on vehicles.
- CSF vaccination upon arrival at the destination and isolation for twenty days in cases in which vaccination is authorized in the destination zone.

The number of days in isolation after vaccination may be reduced in cases in which there is evidence that an authorized CSF swine vaccination biological agent provides immunity levels in a shorter time than indicated by this standard. In such cases the Ministry will authorize the use of said agent and the duration of isolation.

Prior to movement, the state Delegate's Office in the place of destination shall be notified in writing and by fax within no more than five days of the following:

- Number of hogs moved.
- Zoosanitary certificate number.

- Name and location of the farm of destination or of the fair or show in question.

Notice should be given by official veterinarians from the state Delegate's Office in the state of origin or by approved veterinarians from the Classical Swine Fever Control and Eradication Campaign.

Before the movement takes place the state Delegate's Office should verify, inspect and authorize, if appropriate, the premises, farms or places where fairs or shows are held and where the swine shipments will arrive. Moreover, they should report monthly by fax to the state Delegate's Office of the place of origin the list and location of the sites authorized for this purpose. The swine may only be sent to these places.

Official and/or approved veterinarians from the classical swine fever control and eradication campaign will be responsible for supervising the arrival of swine shipments and for establishing the appropriate zoosanitary measures.

c) Origin: control zone.

Destination: control zone

Slaughter, breeding stock, fattening, fairs and shows:

- Zoosanitary Certificate
- CSF vaccination certificate only when vaccination is authorized in the zone of origin.

d) Origin: eradication zone.

Destination: eradication zone.

Slaughter:

- Zoosanitary Certificate
- Straps on vehicles if they go through control zones.

Breeding stock, fattening, fairs and shows.

- Zoosanitary Certificate.
- Straps on vehicles and isolation for twenty days at the final destination in case of having gone through control zones. CSF serological tests are to be done during isolation.

e) Origin: eradication or control zone

Destination: free zone

Slaughter, breeding stock, fattening, fairs and shows:

- No movement is permitted

f) Origin: control zone.

Destination: eradication zone

Slaughter, breeding stock, fattening, fairs and shows:

- No movement is permitted

g) In the case of movements of swine from control and/or eradication zones to free or eradication zones, the Ministry will determine in special situations the requirements and procedures to be followed.

11.2 Movement of swine products and byproducts will be regulated throughout the country on the basis of the zones of origin and destination and of the requirements indicated below:

a) Origin: free, eradication or control zone

Destination: control zone.

- Zoosanitary Certificate.

- In the case of control zones that are not adjacent and where the shipment has to go through a free or eradication zone, the movement must be by air on a non-stop flight.

The above will be applicable except when the company of origin is a Federal Inspection Model Plant (TIF) and is authorized by the Directorate to market swine products and byproducts in CSF free and eradication zones, in which case the movement should take place on vehicles with straps.

b) Origin: free zone

Destination: free, eradication or control zone.

The movement of products and byproducts that originate in CSF free zones should take place without restriction except if they go through control zones to a destination in a free or eradication zone, in which case the movement should take place in vehicles with straps.

c) Origin: eradication zone

Destination: eradication zone

Movement of products that originate in eradication zones and whose destination is another eradication zone may take place without restriction unless the shipment goes through control zones, in which case there are two possibilities:

- 1) That the plant of origin is a Federal Inspection Model Plant (TIF) and is authorized by the Directorate to market swine products and byproducts in CSF free and eradication zones, in which case the movement should take place in vehicles with straps.

2) If the plant of origin does not comply with the above, the movement should take place by nonstop flight – including non-TIF plants.

d) Origin: eradication zone

Destination: free zone

and

Origin: Control zone.

Destination: free or eradication zone

Movement of products and byproducts that originate in eradication zones and whose destination are free zones and those that originate in control zones and whose destination are free or eradication zones should be carried out by TIF establishments that meet the following requirements:

- That they have TIF registration currently in effect.
- That they have express authorization from the Directorate to market their products and byproducts in CSF free and eradication zones.
- That transportation take place in vehicles with straps
- These companies may use raw material that originates in or comes from free eradication or control zones from TIF slaughterhouses to make their products and byproducts
- That the companies be subject to requirements regarding heat treatment procedures and the movement and identification procedures described below:

1.- Swine products or byproducts to be marketed in CSF free or eradication zones should undergo the following heat procedure:

68.9°C for thirty minutes

80.5°C for three minutes

The Ministry may authorize other time and temperature settings and other treatment techniques if and when there is scientific evidence to guarantee destruction of the CSF virus.

In the case of aged products made in control zones and to be moved to classical swine fever free and eradication zones, the following requirements should be met:

- TIF registration currently in effect.
- Express authorization from the Directorate
- The raw material used in making these products should originate in, or come from, CSF free countries or zones

- That the area where these products are made be used exclusively for that purpose and that there be no contact with other meat products.
 - That the aging process extend for longer than 140 days
 - That the fat added to these products first be treated at a 76°C temperature
- In the same way, in such cases the Ministry shall determine the procedures for transportation and movement to CSF free and eradication zones.

2.- After the heat treatment, the official or approved veterinarian should supervise the packaging and storage of the products by lots.

3.- In order to authorize the movement of swine products and byproducts to CSF free or eradication zones, the official or approved veterinarian shall issue the appropriate zoosanitary certificate making sure that the trucks or units that carry the finished product leave the plant of origin with straps duly in place.

4.- Upon arrival of swine product and byproduct shipments to the state of destination, official personnel or personnel authorized by the Ministry assigned at the checkpoints of entry to the state shall strictly follow the inspection procedure indicated below:

- Examination of the zoosanitary certificate
- Verification that the straps were not removed
- Removal of the straps and inspection of the shipment to verify that it corresponds to the information on the zoosanitary certificate.

5.- In the case of product and byproduct shipments that have to go through CSF free or eradication states in order to reach their final destination, the official personnel, or personnel authorized by the Ministry, assigned to checkpoints at the entry and exit of these states shall only examine the zoosanitary certificate that refers to the movement, and will place on the back of this document a seal and signature after examination and will check that the straps of the vehicle have not been removed, after which said vehicle may freely proceed.

6.- With the purpose of facilitating identification and inspection of finished products and byproduct lots to be moved to CSF free and eradication zones, these lots should bear an identification label with the following words:

"TIF establishment number____: products authorized for marketing in classical swine fever free or eradication zones".

This label should be placed on the packaging and wrapping of each product and should comply with the following technical specifications:

- They should be printed.

- Their permanence on the packing or wrapping should be guaranteed to prevent detachment, disintegration, blurring or erasure due to the refrigeration and conservation temperatures at which the products are kept.
 - They should be rectangular and come in three sizes, according to the needs of the product packaging:
 - a) 6 x 4 cm.
 - b) 3 x 2 cm.
 - c) 1.5 x 1 cm
- The labels should be placed on a visible place on the front of the product packaging or wrapping

11.3. The products and byproducts that are exempt from requirement for their movement to CSF free or eradication zones are:

- Sterile canned products
- Cooked, aged or canned products made in CSF zones, states or countries, if and when the original container is kept and documentation is shown of their origin and the place from where they come.

In the case of such products and byproducts the Ministry will determine the procedures for their transportation and movement within the country.

In the same way, for special cases the Ministry will determine the requirements to be met by other products and byproducts not covered by this standard.

Swine and pork products and byproducts that do not meet requirements for their movement will be held at the check points and the Ministry will determine their final destination.

11.4 Semen and Embryos.

Movement of swine semen and embryos will be regulated throughout the country on the basis of the zones of origin and destination and other requirements set forth below:

a) Origin: control zone

Destination: control zone.

- Zoosanitary Certificate.

b) Origin: control zone.

Destination: free or control zone

- No movement is permitted

c) Origin: eradication zone

Destination: eradication or control zone

- Zoosanitary Certificate

d) Origin: eradication zone

Destination: free zone

- No movement is permitted

e) Origin: free zone

Destination: free eradication and control zone

- No sanitary restrictions

11.5 The person responsible for placing the straps is the veterinarian who issues the zoosanitary certificate for the movement.

12. Classical Swine Fever Free Farm Certificates.

Farms located in control or eradication zones and that require CSF free certification must comply with the following requirements in order to receive the certificate:

- a) To be registered by the animal health authorities of the state where the farm is located
- b) The registration should include the company or farm name, location -- including municipality or place, farm area, installed capacity, production capacity, source of food and water supply, farm veterinarian, monthly production and final destination of production.
- c) Compliance with biosecurity measures determined by the Directorate and which are to be certified by means of an inspection conducted by an official veterinarian of the state in question.
- d) Working in coordination with the animal health authorities of the state in question and the Campaign approved veterinarian, serological sampling of all the breeding stock on the farm and 10% of the hogs between four and six months of age will be carried out.
- e) The blood serum samples must be thoroughly identified and should be sent to an approved diagnosis laboratory. The cost of these tests shall be paid by the owner.
- f) The procedure for obtention of CSF free farm certificates can also be applied to control zones with the same procedure set forth in this point when 100% of the animals on the farm are serologically CSF negative, in which case the only difference in treatment for movement of swine from these farms is that the vaccination certificate will not be required if the final destination is a slaughterhouse.

The free farm certificate will be issued by the Directorate based on the approved or official veterinarian's report and according to the laboratory results. This certificate will be in effect for twelve months from the date of issue.

For revalidation of a farm, an epizootiological monitoring study of serum samples must be carried out as indicated by the Directorate. The number of samples is to be determined by the Directorate.

Zones or states in an intensive controlled phase in which there are farms with CSF free certificates should have in place zoosanitary surveillance stations to make sure that movements of their swine comply with this standard.

12.1 Biosecurity Measures

The following minimum requirements must be met by SPU or farms:

- They must have a protective wall or fence surrounding the farm facilities and must restrict the entry of vehicles, persons and animals to the facilities.
- They must have an office with attached bathrooms and dressing rooms as well as a quarantine unit for replacement animals and a pit or an incinerator for disposal of dead swine. An essential requirement is the bathroom and the use of the farms' own clothes for employees. No visits are to be allowed to the Production Unit
- No birds should be allowed to enter production areas, bird netting should be placed on the building and there should be an on-going rodent control program.
- The loading and unloading areas should be outside the surrounding fence or wall.

13. Importation

13.1 Indications on the zoosanitary requirement sheet should be followed for the importation of swine intended for slaughter, breeding, fairs, shows, or research. A further requirement is 100% verification of the swine at the phytozoosanitary inspection units authorized by the Ministry.

They must originate in and come from free zones or countries recognized by the Ministry and the International Epizootic Office.

13.2 Swine for breeding, fairs, shows, or research should be isolated on farms previously authorized by the state Delegate's Office of the Ministry in the state of destination.

13.2.1 If the destination farms are located in a CSF free or eradication farm, the following requirements should be met:

- a) When the swine shipments arrive at these farms serum samples should be taken from each hog and CSF serological tests should be done.
- b) If the results of the serological tests are CSF negative the swine may be released from isolation.

- c) When the results of the serological tests in one or more hogs are CSF positive, the entire lot must be slaughtered and the sanitary measures indicated by the Ministry must be applied.

13.2.2 If the destination farms are located in a control zone, the following requirements must be met:

- a) Upon arrival of the swine shipment to the destination farm the hogs must be vaccinated for CSF if vaccination is authorized in the destination zone.
- b) The swine are to be kept in isolation for twenty days after being vaccinated, after which time they are to be released.

The isolation period may be reduced in cases in which there is evidence that a biological agent authorized for CSF vaccination provides immunity levels in less time than that specified by this standard. In such cases, the Ministry shall authorize use of the product and time of isolation.

13.3 Swine shipments intended for slaughter must comply with the following:

- a) Upon entry to the country, straps should be placed on the vehicles that carry the shipment by official Ministry personnel at the point of entry.
- b) The straps should only be removed by the official veterinarian at the TIF plant of destination.
- c) Compliance with indications on the zoosanitary requirement sheet and 100% inspection of the shipment.
- d) The head of the phytzoosanitary inspection unit should notify by telephone or fax the Ministry State Delegate's Office in the state of final destination of the number of animals shipped, the zoosanitary certificate number and the name and location of the slaughter plant of destination.

13.4 Importation of nonprocessed swine products like fresh pork, bile, viscerae, offal, hides, etc. should originate in and come from CSF free countries or from free zones recognized by the Ministry and the International Epizootic Office and must comply with the following requirements:

- a) They must come from a plant approved by the Ministry.
- b) The exporting country sanitary certificate must specify the plant of origin of the product.
- c) Movement of these products within the country must comply with the provisions set forth in point 11.2 of this Standard.

13.5 Importation of processed pork products like canned products, sausages, aged products, meal, bristles, pancreatin, etc. should originate in and come from CSF free countries or from free zones recognized by the Ministry and the International Epizootic Office, and should comply with the following requirements:

- a) The exporting country zoosanitary certificate should specify that the plant of origin of the certificate is under official supervision.

13.6 Importation of swine products or byproducts that originate in and/or come from countries affected by CSF, like sterile canned products, sterile bristles, and others, as determined by the Ministry, may only take place in special cases and if and when the product manufacturing process guarantees the elimination of the CSF virus, for which purpose the following requirements must be met:

- a) The exporting country zoosanitary certificate must specify that the plant of origin of the product is under official supervision.
- b) The product or products must have undergone a sterilization process or the equivalent, which will be specifically determined in the requirements established by the Directorate for importation of such products and indicated in the zoosanitary requirement sheet.

13.7 Importation of semen and/or embryos will only be allowed if they originate in and come from CSF countries and they must comply with the following requirements:

- a) The country of origin zoosanitary certificate must specify that the semen and/or embryo donors are CSF free

13.8 The Ministry reserves the right to check by whatever laboratory tests it deems appropriate the truthfulness of the data shown on the zoosanitary certificate.

13.9 All aspects referring to the importation of swine, swine products and by-products and semen and/or embryos not provided for in this Standard will be determined by the General Animal Health Directorate.

14. Exportation

Swine and swine products and byproducts intended for exportation must comply with the requirements indicated by the importing country.

15. Sanctions

Failure to comply with the provisions contained in this Standard will be sanctioned as provided by the Federal Animal Health Act and the Federal Metrology and Standardization Act.

16. Concordance with International Standards

The technical contents of this Standard are not equivalent to any International Standard.

17. Bibliography

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18. Transitory Provisions

This Standard will go into effect the day after it is published in the **Federal Gazette**.
Effective Suffrage. No Reelection.

Mexico City, September 30, 1996; Legal Counsel, **Roberto Zavala Echavarria**. Signature.