



**Regional Reference Laboratory for FMD in South East Asia**  
**National Institute of Animal Health, Department of Livestock Development**  
**Pakchong, Nakhonratchasima 30130, THAILAND //www.dld.go.th/rrl**

## **PROTOCOL SAMPLE SUBMISSION TO REGIONAL REFERENCE LABORATORY FOR FMD IN SOUTH EAST ASIA via INTERNATIONAL AIRLINE**

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### **Introduction**

The Regional Reference Laboratory for Foot and Mouth Disease in South East Asia (RRL), National Institute of Animal Health, Department of Livestock Development (DLD), Ministry of Agriculture and Cooperatives is take responsible for FMD diagnosis and operating as the OIE Reference Laboratory for FMD and SEAFMD reference laboratory in the region. The specimens or infectious substances submission to the laboratory for diagnostic purpose are recommended to send to Regional Reference Laboratory (RRL), Pakchong, Thailand by AIRFREIGHT ONLY. The destination airport is to SUVARNABHUMI INTERNATIONAL AIRPORT. The customs clearance process will be proceeded by the DLD officers and collected by the authorized staffs from RRL, Pakchong.

In order to achieve the biosafety and biosecurity standard for shipment of samples or biological materials from oversea countries to Regional Reference Laboratory, the packing and dispatch of samples or biological materials are required as this following.

#### *Infectious substance definition:*

*Infectious substance is substances which known to contain, or reasonably expected to contain, pathogens. Pathogens are defined as micro-organisms (including bacteria , viruses, rickettsia.*

*Parasite, fungi) and other agents such as recombinant (hybrid or mutant) that are known or reasonably believed to cause disease in humans or animals.*

*Non infection substance definition:*

*Non infection substance is substances which do not contain infectious pathogens or have been treated, neutralized, inactivated so that they do not longer pose a health risk.*

## **1. Collection of specimen/sample**

### **1.1 Epithelium/ infected tissue/ vesicular fluid / or other**

The suitable or fresh samples from tongue epithelium, tissue between hoof, vesicular fluid or others which are collected from recently infected animal that may be obtained of sufficient virus for laboratory diagnosis by type identification using antigen capture sandwich ELISA and virus isolation method.

The specimen should be collected as minimum of 2 cm<sup>2</sup>, put tissue in strong container or bottle with screw cap then suspended in a mixture of 50% glycerin with 0.04 phosphate buffer pH 7.2-7.6. preferably with added antibiotics. There will be considerable loss of infectivity if samples are sent in buffer outside of this pH range.

### **1.2 Blood /serum sample**

Collection of blood sample should be collected under sterile conditions and serum part is separated by centrifugation and kept it in a screw cap vials with O-rings. Serum samples should be kept at freezing condition (-20°C) before dispatch to Regional Reference Laboratory.



Tissue specimen,  
preserved in 50% glycerine buffer



Serum/blood specimen

## 2. Packaging and specification

Infectious substance (*Infectious substance Category A*) must be transported in packaging which meets the UN specifications for Division 6.2 and assigned to UN 2900 (*UN 2900 is infectious substance, affecting to animals* only) that meet the requirement of Packaging Instruction 602 (PI 602) of IATA Dangerous Goods

Non infectious substance or diagnostic specimens and assigned to UN 3373 (*Biological product Category B*) that must be transported in packaging that meets the requirements of Packaging Instruction 650 (PI 650)

The samples must be packed in a watertight primary and secondary IATA approved containers or a strong container so that the samples arrive in good condition and do not present any hazard to persons or animals during shipment. It is essential that the contents of containers which break or leak in the transit, do not contaminate the outside layer of the parcel.

The procedure for packing of samples are recommended as this following

1. The samples must be put a primary container (glass or plastic tubes or bottles) with screw caps and wrapped with paraffin film or adhesive tape individually in order to prevent leakage of fluid. The wrapping of bottle or primary container should be completed in clean surrounding by using effective disinfectant before proceeding further.

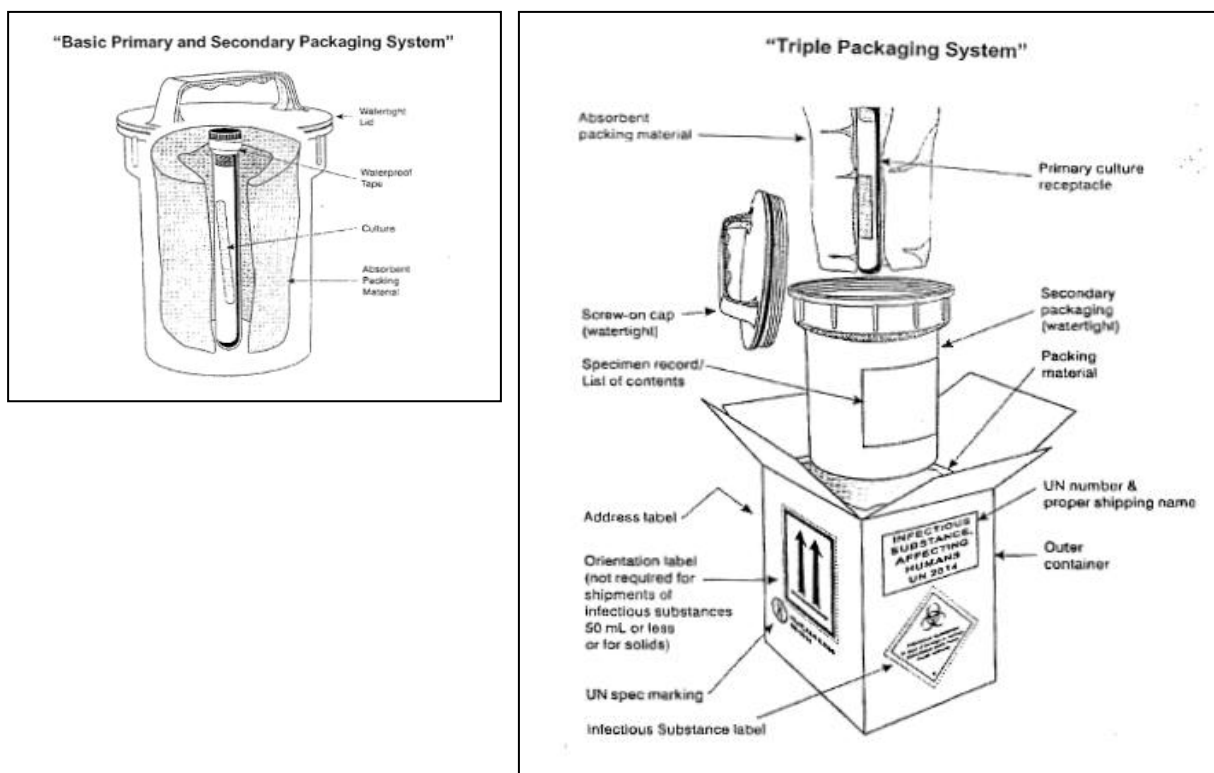
2. Primary container must be packed in watertight secondary packaging, which should be strong crushproof and leak-proof metal containers with absorbent cotton wool that can absorb entire contents of all primary containers.

3. The secondary packaging must be placed in outer containers which should be a foam box covered with hard box or IATA proved container.

4. Sufficient information and list of samples or materials should be enclosed in an envelop covered with plastic bag and placed between the secondary packaging and outer box.

5. The FREEZER PACK is recommended to put outside the secondary packaging to ensure that all materials are kept cool during shipment . The pre-frozen packs at -20°C is necessary to be prepared before packing samples.

6. In case of packing with dry ice, it must be put outside the secondary packing. Please do not placed dry ice directly in the primary containers, it may break the sample tube.



### 3. Marking Labeling

The outer package of parcel must be clear labeled with all details as this following:

- The name and address of Institute,
- Telephone numbers
- Flight number, arrival time
- Airway bill number
- Infectious substance hazard label
- Dry ice label (if necessary)
- Others such as Perishable, fragile, keep cool or keep at -20°C etc.

#### 3.1 Name and address :

Regional Reference Laboratory for FMD in South East Asia

Department of Livestock Development

Pakchong, Nakhonratchasima, 30130

THAILAND

Tel: +66 44 279112, Fax: +66 44 314889

Email: [rrl@dld.go.th](mailto:rrl@dld.go.th)

### 3.2 Others marking :

The marking on the package is an essential source of information to communicate to everyone involved in the transportation process, such as

**“DIAGNOSTIC SPECIMENS” or “BIOLOGICAL SUBSTANCE”**

**“PATHOLOGICAL MATERIAL OF NO COMMERCIAL VALUE”**

**“PERISHABLE” “FRAGILE” “KEEP AT 4 °C”**

### 3.3 Hazard Labels :

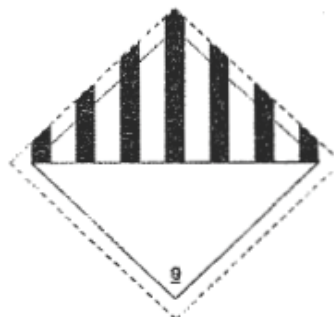
The label must be legible and must not be covered. The label must be attached to one side of the box and not overlap.

*Infectious Substance label*



**Diagnostic specimen**  
UN 3373

*Miscellaneous Dangerous Goods (Dry ice)*

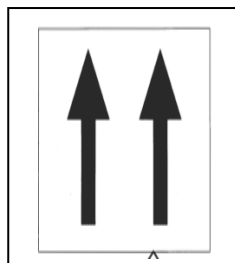


**Cargo aircraft only**  
Must be used for all shipment  
that cannot ride on passenger aircrafts



### **3.4 Oriental label**

The arrow label must be used when shipment liquid samples in the container , indicates to hold the package this way up, this label must be placed on 2 sides of the package (opposite side)



## **4. Route and destination of the shipment**

All biological materials , diagnostic specimens or infectious substances must be sent by AIRFREIGHT ONLY direct to SUVARNABHUMI INTERNATIONAL AIRPORT, BANGKOK ONLY before dispatch the sender must notify the Regional Reference Laboratory at Pakchong by fax (Fax No. +66 44 314889) or email: [rrl@dld.go.th](mailto:rrl@dld.go.th) for the details of the Airway Bill Number, flight number, time and date of arrival of the parcel or package in Bangkok, Thailand.

## **5. Customs clearance process**

The staffs of Department of Livestock Development (DLD) and Regional Reference Laboratory will clear the parcel through the customs at the airport , then the parcel will be collected and taken to the laboratory at Pakchong, Nakhonratchasima province (180 Kilometer from SUVARNABHUMI AIRPORT) by the staff of Regional Reference Laboratory (RRL).

## **6. References**

IAH, Requirement for packaging and dispatch of biological materials to Institute for Animal Health, Pirbright Laboratory, UK.

Guidance document on Addendum III The 46<sup>th</sup> Edition of AITA's Dangerous Goods Regulation.

Packing instruction for diagnostic specimens and infectious substance, ANQAP Department of Primary Industries, Australia.

**Example 1. Picture of IATA approved container for Infectious specimen**



**Example 2. Picture of IATA approved container for Non Infectious specimen**



**Example 3. An alternative method of packing with strong container is also acceptable for diagnostic reagents**



## FMD SAMPLE SUBMISSION FORM

<b><u>Sender details</u></b> Country:..... Your Reference No..... Name of Institute:..... ..... Address:..... ..... Tel:.....fax:..... Email:.....	<b><u>Owner Details</u></b> Owner's name..... Address:..... ..... ..... District/Province:..... Region:..... Country:..... Tel: .....Fax:.....
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<b><i>1. Sample Details:</i></b>						
<input type="checkbox"/> Epithelium tissue <input type="checkbox"/> Vesicle fluid <input type="checkbox"/> Virus culture <input type="checkbox"/> Serum <input type="checkbox"/> Other .....						
Number of sample:						
Sample Identification:						
Date collected: ...../...../.....			Date of dispatched: ...../...../.....			
Date first noticed: ...../...../.....		Date of report ...../...../.....		Number of herd involved /Duration of outbreak .....		
Species	sex	No. of animals affected, in outbreak or dead			Date of previous infection and serotype	
Cattle						
Buffalo						
Pig						
Other						
More details:..... .....						
<b><i>2. Vaccination history:</i></b>						
Species	Vaccinated Yes                  No		Date of Last vaccination	Type of vaccine or serotype	Vaccine producer	Batch no.
<b><i>3. Outbreak investigation /method of spread/Control measures:</i></b> ..... .....						
<b><i>4. Comments:</i></b> .....						
<b><i>5. Signature:</i></b> ..... <b><i>Date:</i></b> .....						