

Appendix B – Tab 9

Public Health Laboratory Testing & Shipping

Packaging and Shipping Specimens

Laboratory Director:

DBJ 11.9.11
Sign & Date

Site Coordinator:

Sutin David RN, BSN 11/4/11
Sign & Date

Procedure approved for initial implementation on 11/4/11
Date

() Reviewed () Revised: DBJ 1.19.12
Director Initial & Date

() Reviewed () Revised: DBJ 2.20.13
Director Initial & Date

() Reviewed () Revised: _____
Director Initial & Date

() Reviewed () Revised: _____
Director Initial & Date

() Reviewed () Revised: _____
Director Initial & Date

Health Department: Barren River District Health Department

Packaging and Shipping of Laboratory Specimens

I. Purpose

Laboratory specimens will be packaged and marked according to United States Department of Transportation 49 CFR Subpart H parts 171-180, the United States Postal Service Domestic Mail Manual Publication 52, and following International Air Transport Association Dangerous Goods Regulations.

II. Procedural Instructions

These instructions are for guidance purposes only. Use manufacturer's instructions for your specific box system.

Employees must have a current certification of training on file.

- Specimen must be classified as an infectious substance in Division 6.2 and assigned to UN2814 Infectious Substance, affecting humans (Category A) or UN3373 Biological Substance, Category B as appropriate.

- To assist in the assignment of infectious substances into Category A, see the Indicative List provided in Appendix A.
- Infectious substances that do not meet the criteria for inclusion in Category A are assigned to Category B.

1. Packaging the specimen for shipment as Infectious Substance, Category A (UN2814).

Follow the instructions below when packaging specimens classified as an Infectious Substance, Category A (Appendix B).

- Use certified Category A ambient/refrigerated shippers.
- Reinforce tubes caps (leakproof primary container) with parafilm or adhesive tape.
- Wrap specimens in bubble wrap included in box.
- Place absorbent disk in bottom of white plastic container (leakproof secondary packaging).
- Place bubble wrap w/specimens in the white plastic container and seal.
- Maximum volume of complete package is 50mL.
- Category A may not be shipped by USPS.

Assembly of refrigerated box:

- Place white plastic container into the cardboard sleeve in the Styrofoam container.
- Place frozen ice brick into the Styrofoam container next to the cardboard sleeve.
- Replace Styrofoam lid.
- Place all paperwork in a Ziploc bag.
- Place Ziploc bag containing paperwork on top of Styrofoam box.
- Seal certified shipper. (Outer packaging).

Assembly of ambient box:

- Place white plastic container into certified shipper.
- Place all paperwork inside shipper.
- Seal certified shipper.

Marking of Box:

- Label with Consignee (To) and Shipper (From)
- Affix Infectious Substance Biohazard label in the premarked diamond.
- Label or write UN2814 Infectious Substance, affecting humans above or adjacent to the Infectious substance biohazard label.
- The name and telephone number of a person responsible for shipment must be legible on outside of box. This person is usually shipper. Phone number can be included on the FROM label.

2. Packaging the specimen for shipment as Biological Substance, Category B (UN3373).

Follow the instructions below when packaging specimens classified as a Biological Substance, Category B (Appendix C):

- Use category B ambient/refrigerated shippers.
- Use leakproof primary container.
- Place specimens in absorbent shuttle provided in box.
- Place shuttle w/specimens in the 95-kPa bag or white plastic container (leakproof secondary packaging).
- Primary container may not contain more than 1L and outer container may not contain more than 4L.

Assembly of Refrigerated Box:

- Lay frozen ice brick in bottom of Styrofoam inner container.
- Place 95 kPa bag with specimens on top of ice brick.
- Replace Styrofoam lid.
- Place all paperwork in a Ziploc bag.
- Place Ziploc bag containing paperwork on top of Styrofoam box.
- Seal outer shipper (outer packaging).

Marking of Box:

- Biological Substance, Category B shippers are preprinted with the applicable markings.
- Label with Consignee (To) and Shipper (From)
- The name and telephone number of a person responsible for shipment must be legible on outside of box.

- **Shipping Paperwork**

Using FedEx to ship specimens.

- Category B paperwork
 - FedEx Airway bill
 - Mark "Yes Shipper's Declaration not required" under special handling
 - Write UN 3373 Biological Substance, Category B in Box 2
- Category A paperwork
 - FedEx Airway Bill (Appendix E)
 - Mark "Yes" under special handling
 - Shipper's Declaration for Dangerous Goods (Appendix D)
 - Shipper's Declarations must be completed using software that has data-compliance checks.

3. Shipping Completed Box

Arrange pickup by calling 1-800-GoFedEx.

Airway Bill and if applicable, the Shipper's Declaration should be placed on the top of the box. If placing in a plastic pouch, red hatching's from shipper's declaration must show.

4. Exceptions

The following are exempt from the regulations of 39 CFR, 49 CFR and IATA.

- Dried blood spots or specimens for fecal occult blood detection placed on absorbent filter paper or other material.
- Environmental samples (including food and water samples), which are not considered to pose a significant risk of infection.

III. References

49 CFR Parts 171-180, Department of Transportation 1200 New Jersey Ave SE, Washington, DC 20590 http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=585c275ee19254ba07625d8c92fe925f&c=ecfr&tpl=/ecfrbrowse/Title49/49cfrv2_02.tpl
April 2011

52nd Edition of the Dangerous Goods Regulations, International Air Transportation Association, 800 Place Victoria PO Box 113 Montreal, Quebec Canada H4Z 1M1, 2007

39 CFR United States Postal Service Domestic Mail Manual,
<http://pe.usps.gov/text/dmm300/601.htm#wp1064962>, February 2011

FedEx, www.fedex.com

IV. Author

Leigh Ann Bates March 2011

Linda Dailey MT(ASCP) March 2011

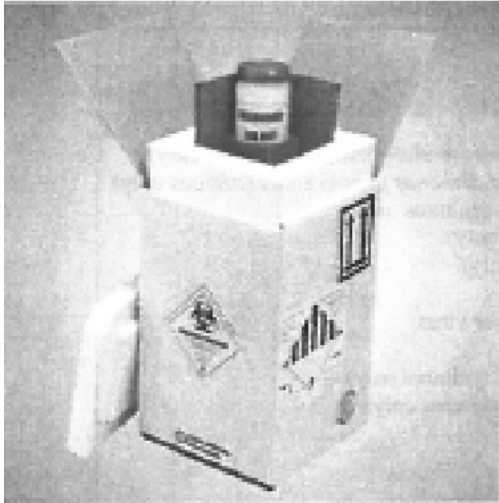
Dangerous Goods Regulation

**Table 3.6.D from IATA Dangerous Goods Regulations
Indicative Examples of Infectious Substances Included in Category A in Any Form
Unless Otherwise Indicted (3.6.2.2.2.1)**

UN Number and Proper Shipping Name	Micro-organism
UN 2814 Infectious substance affecting humans	<i>Bacillus anthracis</i> (cultures only) <i>Brucella abortus</i> (cultures only) <i>Brucella melitensis</i> (cultures only) <i>Brucella suis</i> (cultures only) <i>Burkholderia mallei</i> - <i>Pseudomonas mallei</i> - Glanders (cultures only) <i>Burkholderia pseudomallei</i> - <i>Pseudomonas pseudomallei</i> (cultures only) <i>Chlamydia psittaci</i> - avian strains (cultures only) <i>Clostridium botulinum</i> (cultures only) <i>Coccidioides immitis</i> (cultures only) <i>Coxiella burnetii</i> (cultures only) Crimean-Congo hemorrhagic fever virus Dengue virus (cultures only) Eastern equine encephalitis virus (cultures only) Escherichia coli, verotoxigenic (cultures only) Ebola virus Flexal virus <i>Francisella tularensis</i> (cultures only) Guanarito virus Hantaan virus Hantavirus causing hemorrhagic fever with renal syndrome Hendra virus Hepatitis B virus (cultures only) Herpes B virus (cultures only) Human immunodeficiency virus (cultures only) Highly pathogenic avian influenza virus (cultures only) Japanese Encephalitis virus (cultures only) Junin virus Kyasaur Forest disease virus Lassa virus Machupo virus Marburg virus Monkeypox virus <i>Mycobacterium tuberculosis</i> (cultures only) Nipah virus Omsk hemorrhagic fever virus Poliovirus (cultures only) Rabies virus (cultures only) <i>Rickettsia prowazekii</i> (cultures only) <i>Rickettsia rickettsii</i> (cultures only) Rift Valley fever virus (cultures only) Russian spring-summer encephalitis virus (cultures only) Sabin virus <i>Shigella dysenteriae</i> type 1 (cultures only) Tick-borne encephalitis virus (cultures only) Variola virus Venezuelan equine encephalitis virus (cultures only) West Nile virus (cultures only) Yellow fever virus (cultures only) <i>Yersinia pestis</i> (cultures only)

Shipper Examples A & B

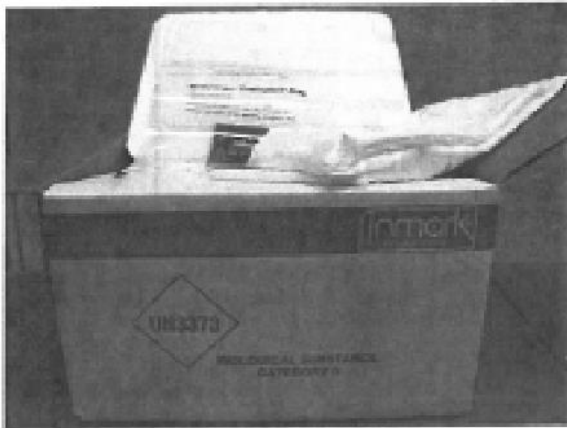
Refrigerated Infectious Substance, Category A Shipper



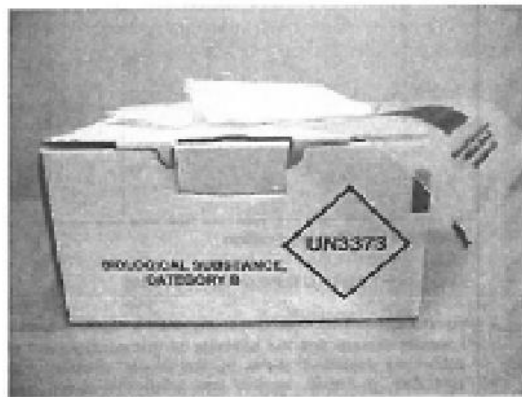
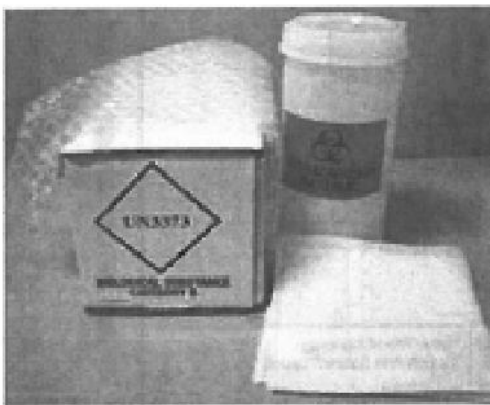
Ambient Infectious Substance Category A Shipper



Refrigerated Category B Shipper



Ambient Category B Shipper



Shipper's Declaration

Provide at least three (3) signed copies of the completed Shipper's Declaration (with diagonal hatchings printed in red) to FedEx Express for shipping.

SHIPPER'S DECLARATION FOR DANGEROUS GOODS							Part Form
Shipper Leigh Ann Bates 100 Power Blvd. Frankfort, KY 40601 (502)564-4446				Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)			For optional use for Company logo name and address
Consignee Linda Colley 321 Happy Lab Lane Frankfort, KY 40581							
Two completed and signed copies of this Declaration must be handed to the operator.				WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.			
TRANSPORT DETAILS This shipment is within the limitations prescribed for: (delete non-applicable)							
<input checked="" type="checkbox"/> PASSENGER AND CARGO AIRCRAFT		<input type="checkbox"/> CARGO AIRCRAFT ONLY		Airport of Departure:			
Airport of Destination:				Shipment type: (delete non-applicable) <input checked="" type="checkbox"/> CONTAINERIZED <input type="checkbox"/> NONCONTAINERIZED			
NATURE AND QUANTITY OF DANGEROUS GOODS							
Dangerous Goods Identification							
UN ID No.	Proper Shipping Name	Class (or Division (Subsidiary Risk))	Pack- ing Group	Quantity and type of packing	Packing Int.	Authorization	
UN2814	Infectious substance, affecting humans (suspected category A infectious substance)	6.2		1 Fibreboard box x 5g	620		
Additional Handling Information Emergency Telephone Number: (502)564-4446							
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/packaged, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.				Name/Title of Signatory Leigh Ann Bates/Shipper Place and Date Frankfort, KY 40601 Signature (see marking above)			

Multi-Shipper Instructions

Packing Instructions for the Multi-Shipper

The enclosed Biological Substance, Category B specimen shipping system has been developed in accordance with the DOT triple packaging requirements found in 49CFR 173.199 and IATA Packing Instruction 650.

Ambient Shipping System

Components:

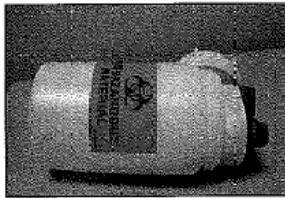
LATA size transport box with markings
Medium 95kPa Canister
Aqui-Pak 6 tube absorbent pouch
Biohazard symbol label
Bubble wrap sheet

Instructions for use:

Once specimens are collected, open multi-shipper and remove all contents from the box. Follow the steps below to insure safe and compliant shipping:

1. Insert up to six sample tubes into Aqui-Pak absorbent pouch.
2. Roll up Aqui-Pak - tube and insert inside medium 95kPa canister.
3. Apply biohazard label to outside of medium 95kPa canister
4. Wrap medium 95kPa canister in provided bubble wrap and place inside box
5. Complete patient test requisition form and fold to fit inside kit box.
6. Place address label and postage on top of box. Do not hang over on the sides. Box has been fitted with a Kennedy label to ensure complete removal of labels.

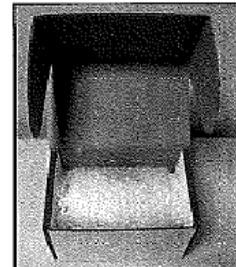
How to Correctly Pack This Box



1. Place specimens in tube shuttles.
2. Place tube shuttles in plastic container.
3. Place bubble wrap and lab form around outside of plastic container.
4. Put in box → Place laboratory label on box.

Do **NOT** put tape or biohazard label on outside of box.

If tape is used to seal box, a small piece will do....







If you have questions please contact Leigh Ann Bates at leighann.bates@ky.gov or 502-564-4446 ext. 4490

Collection & Packaging of Enteric Pathogens

Collection and Packaging of Enteric Pathogens

Supplies Needed for Enteric Pathogens

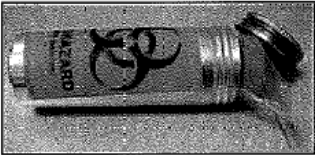
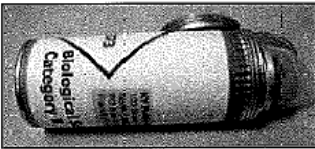
			
<p>Cary Blair Transport Media with Indicator Zorb Sheet Plastic Zippered Bag</p>	<p>Aluminum Can with Biohazard label *Ensure rubber gasket is in lid</p>	<p>Laboratory Form 219 or Outreach Form</p>	<p>Outer Can with Lid</p>

Collection of Specimen

DO NOT DISCARD LIQUID IN THE VIAL

<ol style="list-style-type: none"> 1. Store Cary Blair media at room temperature. 2. Check expiration date of specimen vial. 3. Make sure two identifiers or lab label is on specimen vial. 4. Specimen should be sent to the laboratory as soon as possible. This medium is intended for use as a transport medium and should not be used as a storage or enrichment medium. 	<p>Stool Specimens</p> <ol style="list-style-type: none"> 1. Collect stool specimen into clean container. DO NOT mix urine or water with sample. 2. Open vial carefully. Using the collection spoon attached to the cap, add enough specimen until the liquid reaches the arrow on the label. Approximately one gram. 3. Replace cap tightly and agitate vial. <p>Swab Specimens</p> <ol style="list-style-type: none"> 1. Remove cap and immerse swab into medium. 2. Break swab shaft evenly with the lip of the vial. 3. Replace cap and tightly.
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Packaging and Shipping

<ol style="list-style-type: none"> 1. Place sample vial back into zippered bag with Zorb sheet. 2. Place zippered bag inside the aluminum can and tighten lid. 3. Wrap lab form around outside of aluminum can and place inside the outer can. Address label should be on the outside of the outer can. Specimen must be mailed to KY Public Health Lab on the day of collection. 	 
<p>02/2011</p>	

