

**FAA Civil Aerospace Medical Institute  
Bioaeronautical Sciences Branch  
Forensic Sciences Laboratory  
Oklahoma City, OK**

## **Instructions for Collecting and Shipping Toxicology Specimens**

### **Introduction**

- Specimens from aircraft accident victims (and other modes of transportation upon request) are submitted to the FAA's Civil Aerospace Medical Institute (CAMI), Bioaeronautical Sciences Branch for toxicological examination.
- Normally, only specimens from aircraft crew members are submitted. Such specimens are typically analyzed for the presence of carboxyhemoglobin, blood cyanide, alcohol, and drugs. In accidents involving a fire, blood specimens from passengers should be submitted for the analysis of carboxyhemoglobin and blood cyanide.
- Please ensure anatomical collection site(s) of the submitted blood samples is indicated on the tube(s).
- Please use the provided water-resistant and permanent marking pen for filling labels.
- If the desired amounts of specimens mentioned below are not available, please send what is available.

### **Specimen Types and Amounts**

#### **STEP 1      WHOLE BLOOD SPECIMENS (GRAY-TOPPED TUBES)**

Using the provided needle, collect blood specimens and fill the tubes to the maximum volume.

**Note:** Immediately after the blood collection, ensure proper mixing of the preservative and anticoagulant by slowly inverting the blood tubes at least five times. Do not shake vigorously.

Include the anatomical site(s) from which the blood sample(s) were collected and return them to their original Styrofoam container. Then, complete the requested information on the Styrofoam container label. Replace rubber band to secure the container.

#### **STEP 2      WHOLE BLOOD SPECIMENS (GREEN-TOPPED TUBES)**

See step 1.

**STEP 3      VITREOUS HUMOR, SPINAL FLUID, AND BILE (RED-TOPPED TUBES)**

Using the provided needles, collect available vitreous humor, spinal fluid, and bile. Place the individual sample types in the provided tubes and label them accordingly. After the collection, return the tubes to the original Styrofoam container, and then fill the requested information on the label. Replace rubber band to secure the container.

**STEP 4      URINE**

Collect approximately 100 mL of urine in the plastic bottle. Fill the requested information on the provided bottle labels and mark the "URINE" box on the label. Then, remove the backing from the label and affix it to the side of the bottle.

**STEP 5      GASTRIC CONTENTS**

Collect approximately 100 grams of gastric contents in the plastic bottle. Fill the requested information on one of the provided bottle labels and mark the "GASTRIC" box on the label. Then, remove the backing from the label and affix it to the side of the bottle.

**STEP 6      TISSUES**

Fill the requested information on one of the provided bag labels, mark the appropriate tissue type box on the label, remove the backing from the label, and place it on one of the Whirl-Pak bags. Collect approximately 200 grams of tissue in this labeled Whirl-Pak bag. Close and seal the Whirl-Pak bag and then place it inside a provided Ziploc bag. Squeeze out all excess air from the Ziploc bag and seal it.

Requested tissues:

- LIVER
- MUSCLE
- KIDNEY
- LUNG
- HEART
- BRAIN
- SPLEEN

**STEP 7      ACCIDENT INFORMATION AND CHAIN OF CUSTODY FORM**

Current electronic chain of custody form is available on-line at <http://www.faa.gov/go/toxlab>. Please provide all requested information.

## Tox-Box Packing

1. Please be sure that:
  - a. Labels are properly completed and affixed to their respective containers.
  - b. The Accident Information and Chain of Custody form has been completed.
  - c. Ice packs and non-blood specimens are frozen prior to shipping (Refrigerate blood, do not freeze).
2. Open the provided black plastic bag and place the absorbent pad in the bottom of the bag.
3. Place the black bag inside the Tox-Box.
4. Place all specimens and frozen ice packs into the black bag.
5. Seal the black bag by twisting the top of the bag and wrapping black tape around it.
6. Date and initial the provided security seal. Remove the backing from the seal and place the seal around the black tape on the bag in such a way that the two ends of the security seal adhere together.

## Tox-Box Shipment

1. Prior to the shipment of the specimens, call (405) 954-6254 or email ([9-AMC-AAM600-Specimens@faa.gov](mailto:9-AMC-AAM600-Specimens@faa.gov)) to alert the laboratory of pending Tox-Box shipment and to receive the FAA's FedEx account number.
2. Fill out the shipper information on the provided overnight FedEx shipping label, located on the outside of the Tox-Box.
3. A laboratory staff member will provide the 'bill to' account number to write on the FedEx Shipping label.
4. Ship Priority Overnight.
5. Please do not ship Tox-Boxes on Fridays, weekends, or the day before a Federal holiday.
6. The shipment address is:

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6500 South MacArthur Boulevard  
Oklahoma City, OK 73169