

The Children's Total Exposure to Persistent Pesticides and Other Persistent Organic Pollutants (CTEPP) Study

Packing and Shipping Study Samples

Battelle
Columbus, OH 43201
Contract No. 68-D-99-011

Standard Operating Procedure

CTEPP-SOP-3.11

Title: Packing and Shipping Study Samples

Source: Battelle

U.S. Environmental Protection Agency
Office of Research and Development
Human Exposure & Atmospheric Sciences Division
Exposure Measurements & Analysis Branch

Notice: The U.S. Environmental Protection Agency (EPA), through its Office of Research and Development (ORD), partially funded and collaborated in the research described here. This protocol is part of the Quality Systems Implementation Plan (QSIP) that was reviewed by the EPA and approved for use in this demonstration/scoping study. Mention of trade names or commercial products does not constitute endorsement or recommendation by EPA for use.

STANDARD OPERATING PROCEDURE (SOP)
FOR PACKING AND SHIPPING STUDY SAMPLES

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

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Approved by: _____ Date: _____

Approved by: _____ Date: _____

1.0 Scope and Applicability

This standard operating procedure (SOP) describes the method for packing and shipping study samples.

2.0 Summary of Method

The methods described are for packing and shipping biological and environmental samples. These methods have been tested and used in the previous pilot studies.

3.0 Definition

Not applicable.

4.0 Cautions

Fragile samples (in glass container) and biological specimen are involved. Project staff should follow the SOP and report any problems to the CTEPP Field Team Leader (FTL) immediately.

5.0 Responsibilities

- 5.1 Field staff and the assigned project staff are responsible for properly packing and shipping study samples.

6.0 Apparatus and Materials

- 6.1 Chain-of-Custody Record (CoC; SOP-CTEPP 2.26)
- 6.2 Study samples
- 6.3 Packing and shipping materials
- 6.4 Dry ice
- 6.5 Coolers
- 6.6 Bubble wraps
- 6.7 Scale
- 6.8 Measuring tape

6.9 Sample collection summary chart

7.0 Procedures

- 7.1 Record sample label ID numbers in the CoC Record (**do this before packing the samples**).
- 7.2 Each day care center and household should have the samples as shown in the Participant Sample/Data Collection Check List. Use the CTEPP Tracking System to document the samples that are being shipped.
- 7.3 Make sure every sample container is tightly closed. Seal the cap of each sample container with Teflon tape.
- 7.4 Every glass sample container should be wrapped with the bubble packing materials. Secure the bubble wrap with masking tape.
- 7.5 All samples in glass containers and the urine samples should be packed in an individual Ziploc bag. Put the extra sample ID labels on the Ziploc bag for each sample (except for the food container, all three sample ID labels should be attached on the food sample container).
- 7.6 Put 5-lb of dry ice on the bottom of a large cooler. Pack the samples in the cooler. Put 5-lb of dry ice on the top of the cooler. The dry ice should not have direct contact with the sample containers. Put some paper or wrapping materials between the sample containers and the dry ice. Pack the empty space in the cooler with paper towels and Styrofoam peanuts.
- 7.7 For the cooler with urine samples, put a Bio-hazard label on the top of the cooler.
- 7.8 Sign and date the CoC Record. Make one copy of the form. Place the original form in a Ziploc bag and put it on top of the samples in one of the coolers. Put a copy of the form(s) in the shipping file. A shipping summary describing the contents of each cooler will be shipped with the CoC Records. The shipping staff will e-mail the shipping summary to the receiving staff as soon as the coolers are ready for shipping.
- 7.9 Check the items listed on the form, and the items in the cooler one more time.
- 7.10 Close the cover of the cooler. Make sure it is tightly closed. Use packing tape to seal the cooler (one horizontal strip around the cover and two vertical strips from top to bottom).

- 7.11 Measure the dimensions of the cooler. Weigh the cooler. Record this information on FedEx form.
- 7.12 Prepare the FedEx Bill. The FedEx bill should be prepared as: (a) Priority Overnight, (b) Deliver Weekday, (c) Special Handling: check Dry Ice & 10 lbs., (d) Bill to Third Party, (e) Billing reference # 8304 + project code.
- 7.13 Make a xerox copy of the FedEx bill. Staple the FedEx copy with the copy of CoC records.
- 7.14 Attach the FedEx Bill, Dry Ice Label (write 4.5 Kg), FedEx Label, and Address Label to the top of the cooler.
- 7.15 If the cooler is ready for shipping before the FedEx pickup time (check with the front desk), put the cooler in the reception area for FedEx to pick up; otherwise deliver the cooler to the FedEx Main Office.
- 7.16 Notify the receiving laboratory of the FedEx shipment (i.e., number of coolers, boxes, and tracking numbers).
- 7.17 Check the FedEx shipping status via the Internet. If the packages are not delivered as scheduled, call FedEx immediately.

8.0 Records

The original records will be stored in a secured file room until the conclusion of the study and will be archived in a secure room for three years after the completion of the study. Electronic files will be stored in the field sampling folders and archived on a CD ROM after the project is completed. All electronic files will be protected by passwords. Only authorized project personnel will be allowed to access the files.

9.0 Quality Control and Quality Assurance

The Field QA Officer or designee, Field Team Leader, and the Task Order leader (TOL) will oversee the operation of shipping samples to ensure safe delivery of study samples.

10.0 References

- 10.1 J. C. Chuang, P. J. Callahan, C. W. Lyu, Y.-L. Chou, and R. G. Menton, "Characterization of Polycyclic Aromatic Hydrocarbons Exposure Among Children of Low-Income Families from Inner Cities and Rural Areas." EPA/600/R-98/163a (Volume I), EPA/600/R-98/163b (Volume II), and EPA/600/R-98/163c (Volume III), 1999.
- 10.2 J. C. Chuang, C. Lyu, Y-L Chou, P. J. Callahan, M. Nishioka, K. Andrews, M. A. Pollard, L. Brackney, C. Hines, D. B. Davis, and R. Menton, "Evaluation and Application of Methods for Estimating Children's Exposure to Persistent Organic Pollutants in Multiple Media." EPA/600/R-98/164a (Volume I), EPA/600/R-98/164b (Volume II), and EPA/600/R-98/164c (Volume III), 1999.