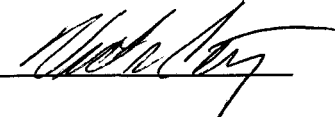



Laundering of Inner Dosimeter Garments

Chapter 8: MATRIX SAMPLES

AHETF-8.J.0.

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1.0 PURPOSE AND SCOPE

- 1.1 This Standard Operating Procedure (SOP) provides a description of procedures for laundering whole body inner dosimeter garments to be worn by workers (test subjects) or used for field fortifications during the Agricultural Handlers Exposure Task Force (AHETF) exposure studies.
- 1.2 Inner dosimeter garments must be washed prior to use in an AHETF worker exposure study.

2.0 MATERIALS REQUIRED

- 2.1 The following materials are required for laundering whole body dosimeter garments:
 - a. 100% cotton, white, long underwear (inner) — See SOP AHETF-8.A for description of material)
 - b. low-suds laundry detergent
 - c. washing machine
 - d. automatic clothes dryer or clothesline
 - e. Scissors (cutting off buttons and sectioning dosimeters)
 - f. Zip-Loc®-style plastic bags (gallon and quart size)

3.0 LAUNDERING OF WHOLE BODY DOSIMETER

- 3.1 For field and laboratory fortification samples only, remove all buttons from the inner dosimeter garments, prior to washing. Dosimeters that will be worn by workers **must not** have the buttons removed.
- 3.2 Place an appropriate number of garments in a washing machine. Follow washing machine operating instructions for proper loading.
- 3.3 Wash the garments, in warm water, **three** separate times (complete washing cycle) using a low suds detergent (*e.g.* All) with the amount specified by the product and washer size each time. For each wash event, allow the washing machine to go through a complete wash, rinse, and spin cycle.
- 3.4 In addition to the three washings, subject the garments to **two additional** rinse-only cycles (*i.e.*, one full cycle of the washing machine without detergent) to remove all of the detergent.
- 3.5 Dry the garments, using natural air drying or using an automatic clothes dryer.
- 3.6 The garments are now ready for use.
- 3.7 Fold and place each clean garment in Zip-Loc®-style plastic bags for storage and transport to field site or laboratory. Fold and place a single, whole inner dosimeter (up to XL) in a gallon size bag. For larger sizes, use a suitable plastic bag or container.
- 3.8 Use a permanent marker to label each bag or container with dosimeter size. (“S” for small, “M” for medium, “L” for large, “XL” for extra large, *etc.*)
- 3.9 For fortification pieces, fold and place two-section dosimetry (*i.e.*, upper and lower halves) in gallon size bags; for six-section dosimetry (*i.e.*, upper/lower arms & legs, front & back torso) fold and place individual pieces in quart size bags. One cut section per bag.
- 3.10 Use a permanent marker to label each bag/container with the garment size as described in Section 3.8 above and the body part as follows:

UB = upper body

LB = lower body

LA = lower arm

UA = upper arm

LL = lower leg

UL = upper leg

FT = front torso

RT = rear torso

4.0 DOCUMENTATION OF WASHING PROCEDURE

- 4.1 A note to the study file shall be prepared for each batch of inner dosimeter garments that have been laundered per this SOP. The date of the washing event, person responsible, type of detergent used, and location of washing shall be noted.

5.0 GARMENT STORAGE

- 5.1 Store the washed garments in a clean, dry environment until shipped to the field or analytical laboratory.