

Appendix II:

Measurement of food residue samples, like fecal sample measurement, will depend very much upon procedures used. At the moment these have not been delineated. ~~Source B~~ The following is a resumé of error sources and recommendation of procedures.

5/L

Food packages ~~come in~~ vary widely and include: beverage containers, an accordion ^{ing} ~~folded~~ plastic cylinder with a push-pull valve, ~~po~~ ^{several arrangements} cans with ~~pull~~ ^{removal} ring top ~~seal~~ including small cans ~~with~~ of custards, candies and peanuts, a separate ~~plastic~~ ^{internal} larger cans with ~~plastic~~ ^{and} ~~internal~~ ^{containers} and ~~which~~ ^{with} a water valve for rehydration,

A II - 2

with a plastic diaphragm for large cans ~~with~~ wet packed foods such as fruits in syrup ^{and} applesauce and large cans with frozen foods such as ^{shellfish} filets, ~~lobster~~ in sauce and ice cream - insert ①

Regardless of food residue, two common requirements must be met for satisfactory mass determination.

The objects must be secured to the ~~mass~~ SMMD specimen tray. They must be prevented from sloshing.

① Apparently a new design for dehydrated foods will be used for flight. It will have a semi-rigid section to fit the larger ^{- sealable} cans with a ~~retractable~~ ~~flexible~~ plastic membrane extension.

A II - 3

Of all the schemes tried the following
~~is~~ was the most practical. Small

custard cans with or without the lid may
be placed directly on the scale. ^① Those cans

with small particulate materials such as
candies and peanuts should be emptied into

the ~~sp~~ plastic bag which is then ^{placed} ~~adjusted~~

on the specimen tray such that all

^{contained} ~~particles~~ ^{particles} are ~~held to the tray~~ under
pressure by the elastomer sheet.

Depending upon the final configuration ^{container}

① A plastic bag with some form of liquid
tight closure is required for other measurements.

A-II 4

~~rehydrated foods in plastic~~
~~containers~~ as the plastic containers of
inner containers should be removed from
the cans and either sealed or placed
in the plastic bag which is sealed.

Any homogenous food can be
measured directly since they are viscous
enough not to slosh. Most of the
wet packed foods (with the possible exception
of applesauce) and the frozen items
should ~~will~~ be placed in the bag ~~and~~ with
its can and sufficient wipes to
absorb any free liquid and the
assembly ~~clamped~~ placed under
the specimen restraint.

A II - 5

~~2p~~
Using these procedures, accuracies sufficient for support of the metabolic analysis should be obtained.

~~Most~~ ~~Most~~ ~~impo~~ Equally or even more important than mass measurement technique is the accounting of all objects in the gross mass figure i.e. type and number of containers and wipes. ~~The can~~ It is equally important to insure that an accurate known mass is available for all of these items i.e. can weights and wipe weights should be accurately known. ~~Both~~ Both cans (and their lids) and wipes ~~have a~~ have uniform weights to a small fraction

A II - 6

of a gram sack ~~rather~~ It is assumed
that any plastic bags used will also be uniform
or, ^{else} weighed and stamped. ^{TP} If such procedures
are ~~followed~~ are instituted and followed
accuracies ~~of~~ adequate to support the
metabolic experiments will be attained.