

**Amendment 1 to the
Quality Assurance Project Plan and Associated SOP's**

for

**Empirical Human Exposure Assessment
Multi-City Study Sampling Task**

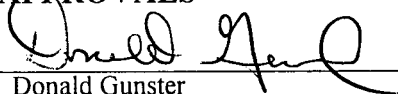
To

June 16, 1999

Prepared by

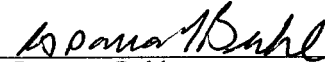
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APPROVALS



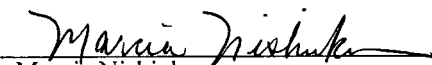
Donald Gunster
Sampling Task Leader

7/15/99
Date



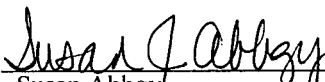
Rosanna Buhl
Battelle Sampling Task QA Officer

7-19-99
Date



Marcia Nishioka
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7/9/99
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Susan Abby
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7-9-99
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Objective

The objective of this amendment to the QAPP and SOP's is to document changes to several processes that have occurred within the field program of the Multi-City Study. The initial field survey resulted in several issues that require either amendment or inclusion into the defined protocol for the field study.

Protocol Changes

- Section 11.1.4 along with SOP M3-F-6 describes the labeling of samples collected during the study. In addition to the samples highlighted in both of these documents, labels will be produced for 'Trip Blank' samples.
- The QAPP describes the collection of samples for the Battelle Columbus facility only. At the clients request samples will be collected for two addition laboratories. The laboratories include the clients 'in house' environmental lab and a third party validation lab. The additions of these unexpected samples triple the number of containers collected during field activities. To ensure accurate sample control a labeling nomenclature system has been implemented. Samples for Battelle will contain a numerical identifier that corresponds to a given matrix followed by a 'B'. Samples for the client will contain the same numerical identifier but will contain a 'K' following the number. Samples for the validation lab will also contain the same numerical identifier but will contain a 'H' following the number (ex. POTW Effluent ID: MC-101B, MC-101K, and MC-101H).
- Section 12.2 of the QAPP indicates that samples will be shipped at the end of each day following collection. The logistical and scheduling difficulties associated with collecting over one hundred samples in a given day at various locations will, in most cases, precluded this from occurring. The amendment to this process is to store the samples on ice overnight and ship them as early as possible on the following day. Also, the shipment of samples on a Friday during a survey **REQUIRES** the prior scheduling of receipt on Saturday at either the destination facilities (OH or MN) or the Duxbury facility. If samples are shipped to Duxbury, then arrangements must be made to send the samples to the destination facilities on the next business day.
- SOP M3-F-4.0 Defines the labeling requirements for the spiking ampoules. The requirement is that each ampoule will be labeled individually with several pieces of information. The actual size of the ampoules precludes all this information from being recorded directly on the ampoules, therefore the information must be recorded separately and attached. To facilitate efficient and accurate labeling and spiking, a different approach will be initiated. The ampoules containing each type of spiking solution (polar and neutral compounds) will be stored and shipped in separate containers (i.e., ampoule storage container or standards storage box). On the exterior of the container all required information will be assigned. On the individual ampoules, only the name of the compound class, e.g., polar or neutral (for polar compound spiking mix or neutral compound spiking mix) and the intended matrix for

introduction will be affixed. This process will reduce the time required for labeling and spiking while ensuring the accurate introduction of the proper material to the sample.

- SOP M3-F-7.0 Section 3.0 describes the procedure for collecting water and sludge samples. These procedures indicate a step that requires the sample container to be wiped with methanol prior to and following sampling. This process adds hours to sample collection procedures. Following the initial field survey a discussion was held between the project manager and several team members to determine if the reduction in potential contamination warranted such a procedure. The result of this discussion is that this procedure will not be continued during subsequent surveys. The use of gloves during collection, and the prohibition of materials containing possible contamination sufficiently reduces the possibility of contamination.