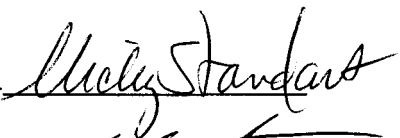
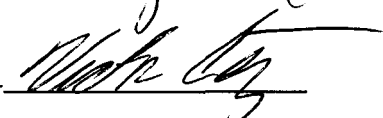


Worker and Study Observations

Chapter 10: FIELD OPERATIONS
AHETF-10.C..2.

Effective Date : January 1, 2006

APPROVAL 	DATE <u>01/03/06</u>
APPROVAL 	DATE <u>05 JAN 06</u>
Last Revision Date: March 10, 2003	Previous Version Number: 10.C.1.

1.0 PURPOSE AND SCOPE

- 1.1 This Standard Operating Procedure (SOP) describes procedures for the necessary observations to be performed during the field phase of the Agricultural Handlers Exposure Task Force (AHETF) exposure studies.
- 1.2 The SOP was revised to include more details on what observers should be looking for during the replicate, section 6.0. Also changes "Field Principal Investigator" to "Principal Field Investigator."

2.0 FIELD NOTEBOOKS

- 2.1 To standardize and facilitate data collection, a field notebook will be provided to the field contractors prior to the exposure-monitoring period. The notebook will provide the necessary forms for study data collection. Instructions for the use of notebook will be located at the front of notebook.
- 2.2 The provided notebook will contain the AHETF study number and contractor project number on each page. If additional pages are inserted into the field notebook, this information must be included on the inserted pages.

3.0 SITE DETAILS

- 3.1 Record site details on the appropriate forms in the field notebook.

The Principal Field Investigator (PFI) should record the following information, at a minimum:

- a. Prepare a sketch map of the working area giving key details such as compass points, orientation of rows in test plot, mixing/loading area.
- b. Record on the form the study number, site reference, date and initials.
- c. Attach a copy of a map with the nearest town circled and give details from there.
- d. If details of the location change (e.g., move to a different location for application), prepare a new sketch showing the new conditions.

4.0 ENVIRONMENTAL CONSIDERATIONS

- 4.1 Outdoor environmental conditions, including but not limited to, wind speed, wind direction (relative to the test site and direction of application), air temperature and relative humidity will be monitored and recorded locally by means of a weather station at each trial site during worker monitoring, or by reference to data from the nearest NOAA weather station. Measuring equipment for on-site weather stations will be calibrated per the contractor's SOP.
- 4.2 Indoor environmental conditions, including but not limited to, air temperature and relative humidity will be monitored and recorded by means of calibrated measuring devices located within the designated test areas. Measuring equipment for indoor monitoring will be calibrated per the contractor's SOP. Ventilation system will be described in the raw data.

5.0 EQUIPMENT DETAILS AND OPERATION VERIFICATION

- 5.1 Details of application equipment will be recorded in the field notebook. Application equipment operation will be verified, and calculations recorded, as defined in the study protocol and SOP AHETF-10.D.

6.0 WORKER OBSERVATIONS

- 6.1 Each dedicated replicate observer must use the appropriate form in the field notebook to record the times and descriptions of all activities including mixing, loading, and/or application activities; resting, lunch, washing hands, driving vehicles, *etc.*
- 6.2 Describe clothing and personal protective equipment (PPE) worn and crop/site condition. Document all clothing worn, including PPE prior to the start of observations during the work period. Note any clothing defects and bring to the attention of the Study Director, Principal Field Investigator (PFI), or AHETF personnel on-site. Record any instances of removal of protective equipment during the monitoring period.
- 6.3 Be sure that the air sampling pump has been turned on before the worker enters the mixing/loading areas, begins any activities for the day, or uses any application equipment. If the PFI has not turned on the air sampling pump immediately after the worker was dressed, it is the observer's responsibility to turn the pump on and record the start time in the field.
- 6.4 Record start and stop time for all activities. Record the productivity of each worker during the activities (*e.g.*, specifically the amount of product handled, if known). It is recommended that all study personnel synchronize their watches prior to the start of the day's activities.
- 6.5 Record any actions that might explain any unusually high or low exposure values for any of the body parts (*e.g.*, spills, maintenance of equipment, keeps gloves on, *etc.*).
- 6.6 Pay attention to the workers' hands during the replicate monitoring period, this includes time handling the test substance, donning/removing PPE, standing around waiting, or performing non-study related activities. Look for hand contact to contaminated equipment or clothing associated with contact to the head/face, other workers, personnel, *etc.*

- 6.7 Periodically note the workers' clothing. Look for new rips or tears, perspiration, chemical spills/stains, or anything that appears out of the ordinary. Also check and document the operation of the personal air sampling pump. Document as "Pump Running" not "Pump On".
- 6.8 Report any unusual or unauthorized activities observed (eating without handwash, not wearing PPE during chemical exposure, *etc.*) to the Study Director, PFI, or AHETF QAU.
- 6.9 Record observations pertinent to the worker assigned. For example, when observing a loader, it is not necessary to note the specifics of the application equipment. This information can be cross-referenced later.
- 6.10 Keep observations brief and to the point. Don't use worker names; rather use their ID for the study. Don't record long explanations of activities unless absolutely necessary to explain what is occurring. Document what activities are directly related to handling the test substance.
- 6.11 The observations made will be reviewed and placed in the field report at the conclusion of the study. Try to write neatly and clearly while describing the activities observed. Be as succinct as possible. Typically 3-5 pages of notes should be collected during an average work period.
- 6.12 Observe the worker for the entire time period of the replicate, from when the worker is dressed at the start of the day until he/she enters the staging area for sample collection; this includes during lunch breaks, performing other daily activities, and during interim sample collections. This does not include observing the worker during restroom breaks. If the worker cannot be seen during application, this should be noted, and is to be expected at times. If the observer needs to take a break, get another researcher to monitor the worker during the observers absence.
- 6.13 Do record the names of non-study compounds observed being handled during the replicate. Use generic terms like anti-foam agent, surfactant, insecticide, *etc.* in observation notes and document chemical or trade names, if known, in the specific loading/application procedures.
- 6.14 A pre-study explanation of required observations may be conducted before the conduct of the study commences. The AHETF QAU and/or Study Director will be responsible for providing additional training on this SOP. The AHETF Study Director will determine if research personnel would benefit from such training on a per study basis.