National Human Exposure Assessment Survey (NHEXAS)

Arizona Study

Quality Systems and Implementation Plan for Human Exposure Assessment

The University of Arizona
Tucson, Arizona 85721

Cooperative Agreement CR 821560

Standard Operating Procedure   **SOP-UA-D-40.0**

Title: Cleaning: 24-Hour Food Diary (Hand Entry)

Source: The University of Arizona

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

Cleaning: 24 Hour Food Diary

1.0   Purpose and Applicability

The purpose of this procedure is to define the particular steps involved in cleaning the electronic data generated from data entry of the 24 Hour Food Diary. It applies to electronic data corresponding to the 24 Hour Food Diary scanned and verified by NHEXAS Arizona Data Staff.

2.0   Definitions

DATA CLEANING: The process of locating and correcting data processing errors. They can be individual level errors in the electronic and physical data, or they can be system level errors in the data collection, packaging, coding, entry, and cleaning procedures themselves. This process is also referred to as "data validation."

DATA, ELECTRONIC: Data stored on some type of magnetic or optical medium (for example: floppy disk, hard disk, Bernoulli, tape).

DATA, ENTERED: Electronic data entered for the first time into a computer database. Entered data are the product of "data entry."

DATA, VERIFIED: Electronic data re-entered into the same table and database into which it was originally entered, and programatically compared against the original entered data. Verified data are the product of "data verification."

HRP SITE: The Health Related Professions building, located at 1435 North Fremont Avenue; Tucson, AZ 85719. This is an annex of the Respiratory Sciences Center and the primary site of NHEXAS Arizona.

NHEXAS Arizona: Acronym for National Human EXposure Assessment Survey, a research project conducted in Arizona by the University of Arizona/Battelle/Illinois Institute of Technology consortium.

3.0   References

N/A

4.0   Discussion

All possible considerations are given to all questionnaires and forms prior to entry into the field. Questionnaires and forms are tested and redesigned repeatedly prior to use. Technicians and interviewers are trained, tested and retrained on questionnaire completion and Quality checks and assurances for use in the field. Questionnaires and Forms are reviewed for completeness and accuracy prior to being transferred to the data section of the project. These checks are designed to generate flawless forms and questionnaires prior to data entry. Once entered and verified the data is subject to logic checks through application of Dictionaries and other projects.

Sometimes despite all best efforts, errors are found in data. These errors must be corrected to produce a valid database. At this time, all an-

ticipated problems have been addressed. "Cleaning" protocols are developed concurrently with data entry to address the unanticipated problems. Specific corrections will be documented as outlined in SOP # UA-D-16.0. The method of handling general types of corrections associated with the 24 Hour Food Diary will be documented in this SOP to ensure consistent handling. As a result, any particulars in the data cleaning scheme cannot yet be defined.

5.0   Responsibilities

5.1 The Project Data Coordinator is responsible for writing the data cleaning instructions for the 24 Hour Food Diary when data problems are found during the data entry process.

6.0   Materials and Reagents

N/A

7.0   Procedure

N/A

8.0   Records

N/A