National Human Exposure Assessment Survey (NHEXAS)

Region 5 Study

Quality Systems and Implementation Plan for Human Exposure Assessment

Research Triangle Institute
Research Triangle Park, NC 27079

Cooperative Agreement CR 821902

Survey Operations Protocol RTI/CSUR-AP-209-302

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Human Exposure Research Branch

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NATIONAL HUMAN EXPOSURE ASSESSMENT STUDY

FIELD INTERVIEWER MANUAL

Project 5740

By

Survey Research Division
Research Triangle Institute

Prepared for:

U. S. Environmental Protection Agency
Washington, DC 20460

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1. INTRODUCTION

1.1 Previous Environmental Exposure Monitoring Studies

Over the past fifteen years, RTI and other research organizations have conducted a number of research efforts looking at people's exposures to various chemicals found in the environment. These studies have been funded by a variety of agencies, including the U.S. Environmental Protection Agency, some state environmental agencies, and some commercial clients.

These studies have looked individually at classes of chemicals such as volatile organics, or particles, and at different routes of exposure such as breathing air, drinking water, food, etc. Only a few studies have attempted to look at multiple chemicals and multiple paths of exposure, and these studies have been conducted in limited geographical areas. The logical next step was to expand the focus of these studies to a national basis.

1.2 NHEXAS

1.2.1 Overview

The National Human Exposure Assessment Study (NHEXAS) was developed out of a series of scientific discussions and workshops conducted by the U.S. Environmental Protection Agency (EPA) between 1992 and 1993. It was developed to examine the environmental pollutants that people come in contact with every day at home, work, or school. It will also examine the different ways in which the population gets exposed to these pollutants. Overall, this study will increase the understanding of how exposures occur and will impact on the way pollution regulations are developed. Overall, NHEXAS consists of three phases:

Phase I	-	Pilot studies (test and evaluation of methodology)
Phase II	-	The National Exposure Assessment Survey (data collection)
Phase III	-	A series of characterization modules developed from the NHEXAS data

We are currently involved in Phase I, the pilot studies conducted to test all data collection procedures. In Phase I, data will be collected from a representative sample of 35 Primary Sampling Units (PSUs) within EPA Region 5, which consists of the States of Minnesota, Wisconsin, Michigan, Illinois, Indiana, and Ohio. Field staff will count and list selected segments in each PSU and send this information to RTI. RTI will then randomly select housing units and send this information back to the field staff. An interviewer will screen the selected households sequentially until nine eligible respondents agree to participate in each PSU.

Selected respondents will participate by completing some or all of the following activities:

- completing various questionnaires which describe their health, occupation, diet and daily activities,

- allowing collection of samples of indoor and outdoor air, tap water, soil and dust,

- providing samples of urine, hair and blood, and

- providing a four-day duplicate sample of the food and beverages the respondent consumes.

Different incentives will be given to the respondents depending upon which activities they complete.

1.2.2 Goals

The general goals of the entire NHEXAS project can be summarized as follows:

- To establish relationships between environmental pollutant concentrations, exposures and doses, and the health of the U.S. population.

- To determine the incidence and causes of high exposures, especially for biologically susceptible persons (i.e., the elderly, young children, persons in poor health), and

- To produce reliable estimates of status and trends in human exposures to potentially harmful environmental agents.

The NHEXAS data collection aims can be summarized as follows:

- To estimate trends in population exposures.

- To identify emerging problems and determine the effectiveness of regulations in reducing human exposures.

- To determine relative risks for different compounds and different routes of exposure so that they can be appropriately prioritized for regulatory action.

- To estimate the distribution of exposures for the general population and for subsets of special interest groups (e.g., subpopulations defined by age, race, ethnicity, geographical regions, socioeconomic status, and health status),

- To identify the characteristics and exposure levels of the persons with the highest exposures in the general population and in the special interest subpopulations to help in further investigation of these real-life 'worst-case' situations.

- To collect data that can be used to test models for human exposure to reduce the uncertainty in model-based exposure assessments.

Specifically, the aim of the NHEXAS Phase I pilot studies is to test the proposed materials and procedures to be used for the national data collection effort (Phase II).

1.2.3 Type of Data Collected

To analyze the types of contaminants people encounter on a daily basis, and the ways in which people encounter them, two types of data must be collected.

1. Environmental/Biological Samples

   All environmental and biological samples collected for this study will be tested for the presence of various chemicals, including:

   - lead
   - arsenic
   - cadmium
   - chromium
   - benzene and other volatile organic chemicals (VOCs)

   Food, drinking water, housedust, soil, and indoor/outdoor air will be tested as possible pathways to human exposure; and blood, hair and urine will be tested as the endpoint of these exposure pathways.

2. Questionnaire Data

   Respondents will be required to complete or provide information for a set of hard copy documents during their participation in this study.

   Descriptive and Baseline Questionnaires

   The Descriptive Questionnaire will be administered at <u>each</u> selected household, and will be used to determine if anyone in the household is eligible to participate. If a household member is selected, they will complete the Baseline Questionnaire which gathers background information on the selected respondent. Information collected from both of these Questionnaires includes household characteristics, respondent demographics, personal exposure activities, and health status.

Time/Activity and Food Diaries and Food Followup Questionnaire

Respondents who participate in the field monitoring portion of the study will complete these forms themselves. These documents will provide detailed information about where the respondent spends their time during the day, what they spend their time doing, and what they eat and drink every day.

Technician and Followup Questionnaires

These questionnaires will be completed by the field monitoring team who will collect the environmental and biological samples. They will be used to augment data regarding the household. The field monitoring team will use the short Technician Questionnaire to collect detailed information about the inside and outside of the housing structure the respondent lives in. The Followup Questionnaire, administered during the last visit to the household, gathers data on personal exposure activities that took place while the respondent was participating in the study.

1.2.4 Research Triangle Institute

Research Triangle Institute (RTI), working under contract to the U.S. Environmental Protection Agency, is responsible for conducting sample selection, data collection, data processing, analysis, and reporting activities for NHEXAS.

RTI is a not-for-profit contract research organization, centrally located on a 180-acre campus in the Research Triangle Park between Raleigh, Durham, and Chapel Hill, North Carolina. RTI was incorporated as a separate entity in 1958 by the University of North Carolina at Chapel Hill, Duke University in Durham, and North Carolina State University at Raleigh. RTI conducts research both in the United States and abroad under contract with federal, state, and local governments, public service agencies, and commercial clients ranging from small companies to national corporations. RTI occupies 450,000 square feet of laboratory and office facilities and employs a permanent, full-time staff of over 1,400.

RTI conducts research in the physical, applied and social sciences for clients such as the U.S. Public Health Service, the Department of Health and Human Services, and the National Aeronautics and Space Administration. You will be working under the supervision of staff of RTI's Survey Research Division (SRD). Typically, SRD conducts national studies for clients such as the Substance Abuse and Mental Health Services Administration, the Environmental Protection Agency, National Institute of Health, and the Centers for Disease Control and Prevention. Some recent studies of national significance include:

- National Household Survey on Drug Abuse, a nationwide survey on tobacco, alcohol, and drug usage in the United States.
- National Household Seroprevalance Survey Feasibility Study, a study of the prevalence

of the HIV virus (AIDS) in the general population.

- National Residential Radon Survey, a study to determine national levels of radon within households with a focus on differences across geographical regions and housing structure.

1.2.5 Project Organization

The NHEXAS data collection field staff will consist of two field interviewers working under the supervision of RTI's Survey Research Division (SRD) and a field monitoring team from RTI's Analytical and Chemical Sciences (ACS) division. As a field interviewer for NHEXAS, your supervisor will be Kathleen Considine, a Survey Manager in RTI's Survey Research Division. The RTI management structure for NHEXAS is shown in Exhibit 1-1.

1.2.6 Data Collection Schedule

NHEXAS data collection will run from March 1996 through May 1997. Within this period, field staff will complete work in 26 PSUs; however, the work in each PSU will begin at a different time. The normal work schedule for each PSU will include:

Count & List PSUs	2 weeks
Sample Line Selection (at RTI)	1 week
Screening/Respondent Selection	3 weeks
Field Monitoring	2 weeks

Prior to this phase of data collection, NHEXAS ran from June 1995 to December 1995. During that time, work was completed in 9 PSUs. This brings the total number of PSUs that we will collect data in to 35 for the study. This work was completed by local field itnerviewers, who were trained just prior to data collection in each of the 9 PSUs.

1.2.7 Role of the FI

This manual provides a detailed description of the tasks you will be required to complete for this study. Adherence to prescribed procedures and duties is of paramount importance to the success of the study. A summary of your responsibilities follows:

- Read this manual and complete the Home Study Workbook

- Attend an in-person two week training session conducted by RTI

- Contact selected households in those three segments and administer the Descriptive Questionnaire to screen selected households for eligible respondents

- Administer the Baseline Questionnaire to all eligible respondents

- Enroll respondents for field monitoring

- Schedule all visits for the field monitoring team

- Train respondents on how to complete the Time Diary and Activity Questionnaire

- Make reminder calls prior to the initial field monitoring team appointments

- Maintain records of your data collection activities

- Review the status of all cases during regular telephone conferences with your supervisor

- Maintain the confidentiality of all data and materials at all times

- Complete and submit weekly Production, Time, and Expense Reports (PT&Es) and other administrative forms in a timely manner and according to prescribed schedules.

1.2.8 Standards of Performance for Field Interviewers

As in all RTI surveys, certain standards have been established to evaluate each interviewer's performance in NHEXAS. The success of this project depends on your obtaining participation and recording accurate and complete information. No amount of review or correction can improve the quality of the results. Equally important, if you do not complete your assignment efficiently and in the prescribed time period, the study cannot be conducted within budget and on time.

We will keep you informed about how your performance compares with the established standards for efficiency and quality, and how you can improve your performance. Please remember that an attribute of a good interviewer is being receptive to positive feedback and constructive criticism given to improve the quality and efficiency of your work.

An important aspect of any research project is confidentiality. We are required by Federal policy for the Protection of Human Subjects in research to assure each research respondent that any information they provide during the study will be held in the strictest confidence. It is your job to convey this to each prospective NHEXAS respondent. To make sure that you understand and will adhere to these confidentiality requirements, RTI will have you read and sign the NHEXAS Confidentiality Pledge (Exhibit 1-2).

1.2.9 Use of the Manual/Study Workbook

This manual will take you through the NHEXAS training process, and it is very important that you follow the process step-by-step from beginning to end to be as prepared as possible for your work assignment. At various points in the manual, you will be told to stop and complete one or more exercises in the Home Study Workbook. This workbook has been provided to give you practice with various aspects of your field work, such as household screening and questionnaire administration. You will bring this workbook with you to RTI for training, and will be used in the evaluation of your ability to complete the necessary tasks for the NHEXAS field work.

After training, this manual will be a source of information you will need to carry out your work assignment. It should be carefully studied as you prepare for fieldwork, and taken with you whenever you visit a household.

Exhibit 1-1

NHEXAS Organizational Structure

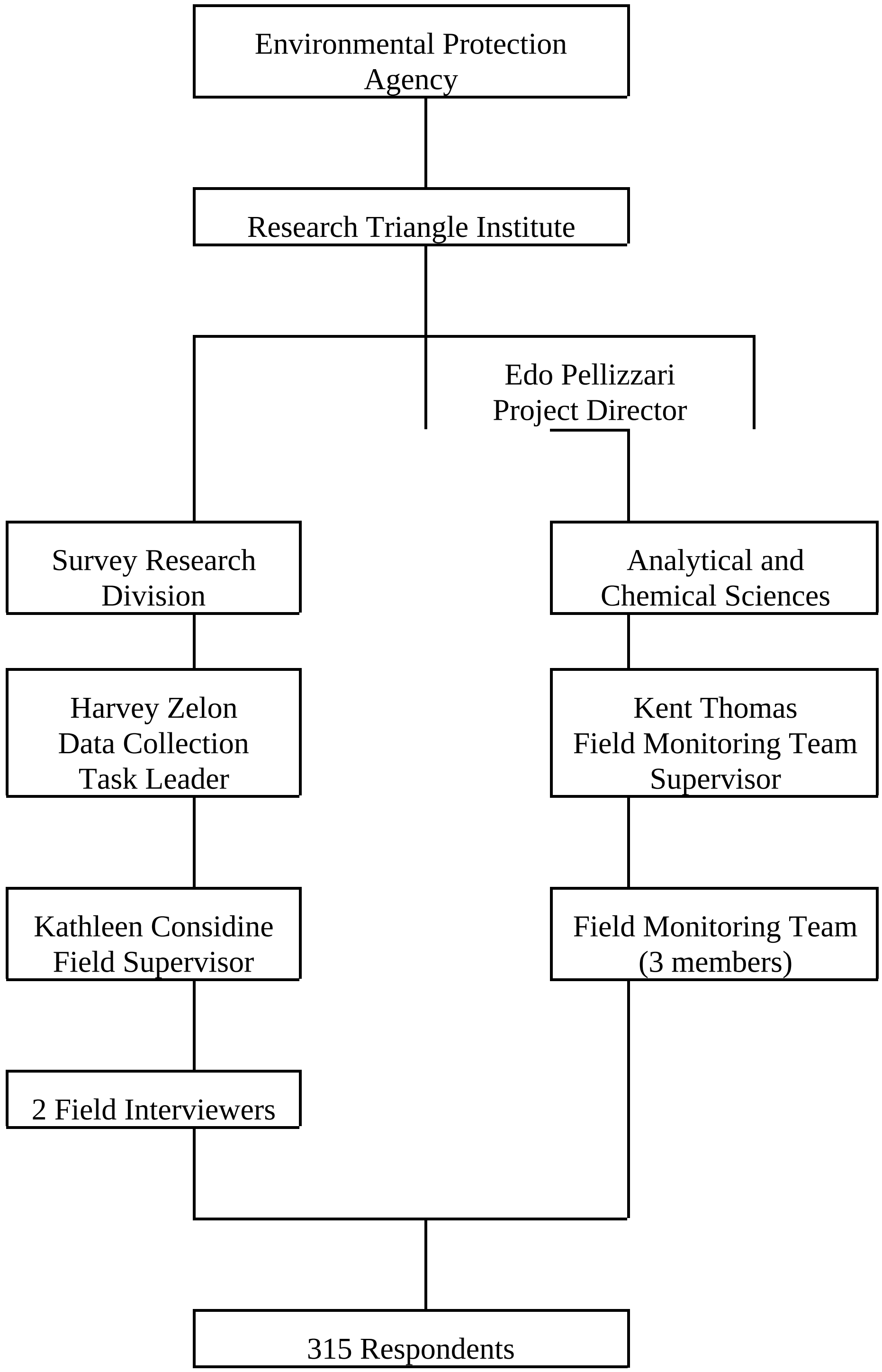


Exhibit 1-2

Interviewers/Supervisors

NATIONAL HUMAN EXPOSURE ASSESSMENT STUDY

CONFIDENTIALITY PLEDGE

Conducted by
Research Triangle Institute
Post Office Box 12194
Research Triangle Park, NC 27709

Assurance of Confidentiality

In accordance with Section 308(d) of the Public Health Service Act (42 U.S.C 242m), the Director, EPA, assures each respondent that the confidentiality of responses to this information request will be maintained by the Contractor and EPA and that no information obtained in the course of this activity may be disclosed in a manner in which the particular establishment or individual supplying the information or described in it is identifiable, unless such establishment or individual has consented to such disclosure, to anyone other than authorized staff of EPA.

Agreement

I have carefully read and I understand the EPA assurance that pertains to the confidential nature of all records to be handled in regard to this study. As an employee of SELECT Staffing Services, Inc., I understand that I am prohibited by law from disclosing any confidential information obtained under the terms of this contract to anyone other than authorized staff of EPA.

I further understand and agree to comply with the following:

1. I agree to provide field data collection services for the benefits of Research Triangle Institute (RTI) in connection with the National Human Exposure Assessment Study. I hereby accept all duties and responsibilities of performing specified data collection tasks, and I will personally perform such tasks in accordance with the training, guidelines, and specifications provided to me.

2. I agree to treat as confidential all information obtained in any project-related manner. This includes information obtained from or about any persons eligible for interview, their parents, and any one else I may come into contact with in connection with this study. I agree not to discuss any aspects of any case with anyone other than authorized project staff. I further agree that this covenant of confidentiality shall survive the termination of this agreement.

3. I agree to treat as confidential and proprietary to RTI any and all study instruments, materials, and documentation provided or accessed during the course of my service on this project. I agree not to copy or duplicate any project materials without written permission from RTI. I agree to safeguard all project materials and to exercise extreme care to protect them from access by unauthorized persons.

4. I agree to conduct myself at all times in a manner that will obtain the respect and confidence of all sample members, parents, and other persons with whom I may come into contact in connection with this study.

5. I agree not to willfully endanger or abuse equipment assigned to me and to return such equipment when requested to do so by RTI.

6. I agree to report any breach of confidentiality to my RTI supervisor immediately.

____
Name (Print)

____ ______/______/______
Signature *Date*

Disposition: Original to Project File; Copy to Select Staffing Services, Inc.; Copy to Employee

2. NHEXAS DATA COLLECTION

2.1 Overview

Data collection for Phase I of NHEXAS is comprised of the following activities:

- selection of the study participants,
- the acquisition of survey information from the study participants,
- the acquisition of environmental and biological samples, and
- chemical analysis of the environmental samples at the analytical laboratories.

As FIs for this project, your efforts will be concentrated in the first and second activities listed above. The rest of this chapter will outline all of the data collection activities, and will discuss the development of these activities. This chapter is designed to be a brief overview of all data collection procedures. The procedures you will follow are presented in detail in subsequent chapters.

2.2 Pretest

As part of the development of the data collection instruments and procedures, RTI included several forms of pretesting. Survey methodologists conducted interviews with volunteers to test the wording and flow of the questionnaires. RTI then conducted an initial dress rehearsal of all procedures with three volunteer respondents and modified instruments and procedures based on what was observed. Further review and modification of the questionnaires occurred as the study was reviewed by EPA prior to submission for the final regulatory review required by the Federal Office of Management and Budget.

RTI conducted a final dress rehearsal with six respondents located near the Research Triangle Park offices. This final test was conducted using all final instruments and procedures. The field monitoring team working in Region 5 conducted the dress rehearsal, with project study staff serving in the role as field interviewers.

2.3 Survey

Study respondents will provide information by completing both interviewer and self-administered questionnaires and diaries. To ensure a higher participation rate, NHEXAS was designed to offer respondents different options for participation. Because of this study design, some participants may complete all or only some of the survey instruments listed below. Survey instruments to be completed are:

1. Descriptive questionnaire (interviewer administered)

2. Baseline questionnaire (interviewer administered)

3. Time diary and activity questionnaire (self administered)

4. Food diary (self-administered)

5. Food followup questionnaire (self-administered)

6. Technician questionnaire (completed by field monitoring team)

7. Followup questionnaire (field monitoring team administered)

You will be assigned a different PSU (part of a county) to work every 3 weeks as you "hopscotch" around Region 5. Within the PSU, the field interviewer will be responsible for completing six activities.

Contacting Households.

The first step is to contact each housing unit selected, <u>in the order specified</u> on each segment's selected housing unit listing. You must determine that the selected unit is a housing unit and is not a group quarters (a unit occupied by ten or more unrelated persons). If a selected unit is ineligible (i.e., vacant, or a group quarters unit), you must document the reason and contact the next selected housing unit on the list.

Descriptive Questionnaire.

At each eligible housing unit, you will complete a Descriptive Questionnaire. The purpose of this questionnaire is to gather information about the household, and determine if anyone in the household is eligible to participate in the study. This process is called 'screening,' and the person you collect the information from is referred to as the 'screening respondent.' The screening respondent must be a resident of the household who is at least 18 years of age. After completing the Descriptive Questionnaire, you will consult a pre-printed sample selection matrix generated specifically for your assigned PSU. This matrix will indicate the randomly selected roster number, if any, which identifies the person from the household roster who is eligible for the study. This person is referred to as the 'Respondent.' If no one is selected or if the residents of the household refuse to complete the Descriptive Questionnaire, your supervisor may supplement the sample by assigning the next housing unit on the ordered list for that segment, after all nonresponse follow-up contacts that are appropriate have been completed.

Baseline Questionnaire.

The next step is the administration of the Baseline Questionnaire. Explain the basic components of the Questionnaire to the Respondent and administer it, recording all of their answers. The respondent will receive a $5.00 incentive after they have completed this document.

Enrolling in Field Monitoring.

After completing the Baseline Questionnaire with the respondent, explain the rest of the study, detailing the components of the environmental and biological sample collection. Attempt to get each respondent to agree to provide as full a set of the samples as possible by explaining the importance of full participation, and tell the respondent of the incentives associated with each group of samples they agree to provide.

Selecting Starting Date and Time

Once the respondent has agreed to participate in field monitoring, the next step will be to select the dates and times for the environmental and biological sampling. Tell the respondent which days the field monitoring team will be working in the area, and help the respondent schedule the field monitoring visits. The appointment dates and times, locations of the respondent's homes, and other data from the Descriptive and Baseline Questionnaires will be compiled and left for the field monitoring team, prior to their arrival at their hotel. Shortly before the initial field monitoring visits, you will call the respondents to remind them of the field monitoring team visits.

Time Diary and Activity Questionnaire Training

For all respondents who participate in field monitoring, the final step is to show the respondent how to complete the Time Diary and Activity Questionnaire Training Guide that you will leave with them. This guide is intended to give the respondent practice completing one of the most important study documents they will be required to fill out during the field monitoring week.

2.4 Environmental and Biological Sample Collection

Many different kinds of environmental and biological samples will be collected and analyzed under NHEXAS Phase I.

Environmental and personal exposure sample collection methods have been selected to measure the extent of an individual's exposure to specific toxic chemicals. Biological sample collection methods (urine, hair, blood) will be used to assess the total exposure to a selected list of metals, and the exposure through primary pathways for selected volatile organic chemicals (VOCs). Some of the samples (standing water, dietary, urine) will be collected by the respondents, while the remainder will be collected or setup (personal aerosol and VOC air monitors) by the field monitoring team.

Air Samples

Various air samples will be collected over a period of approximately 6 days to measure inhalation exposure to particles, metals, and VOCs. To measure particles and metals, the respondent will carry a personal sampling system consisting of a pump, flow controller, DP cell, thermistor, interval timer, data system, battery pack, and aerosol inlet, all packaged in a specially designed carrying pack. The sampling system will be contained in a soft "fanny" pack worn around the waist, with the inlet attached to the outside of the pack. The approximate total sampling system weight is just over 2 pounds, and is ~12 inches long, 3½" high and 3" deep. An interval timer will be used to extend battery life. This timer will sequentially turn the pump ON and OFF with an ON-cycle time of 60 seconds and an OFF-cycle time of 120 seconds. Flow rates will be measured by the field monitoring team when they set up and pick up the devices. A miniature data logger will be used to record elapsed sampling time and other collection parameters. Particle samples may also be collected inside (in the main living area of the home) and outside with aerosol monitoring, to assess sources of exposure.

To measure VOC exposure over a period of approximately 6 days, a passive charcoal badge will be used to minimize respondent burden. A second badge will be used for a subset of respondents to assess the contribution of occupational exposure to the total exposure to selected VOCs. (Occupational exposure will be measured by difference - the second badge will be covered during working hours.) Badges will also be set up inside (in the main living area) and outside all homes to assess the sources of exposure. Total elapsed sampling time will be calculated from the uncapping and capping times recorded by the field monitoring team. Badges will be resealed in their cans for storage and shipment.

Water Samples

One water sample will be collected from the kitchen tap by the respondent after the water in the pipes in the home has remained undisturbed for a period of several hours prior to collection. This sample is intended to assess the contribution of the home plumbing to exposure to metals, particularly lead from plumbing solder joints.

Two water samples will be collected from the kitchen tap by the field monitoring team after water has been run through the pipes for three minutes. These samples will be collected to assess potential contamination with metals from the water source or supply. For respondents who are not collecting duplicate diet samples, separate samples of drinking water will be collected if tap water is not the primary source of drinking water.

Drinking water samples will be collected from the primary drinking water source by the field monitoring team. This may be either the household's tap water, or any other primary drinking source such as bottled water. This sample is intended to assess the contribution to exposure that results from the drinking water.

Food and Beverages

As an important component of measuring total exposure, dietary samples will be collected to assess exposure of individuals to metals by way of ingestion. Dietary samples will be analyzed for metals. Dietary samples will be collected from respondents who agree to collect duplicate dietary samples on four consecutive days. This method requires respondents to prepare or obtain duplicate portions of all the foods and beverages they consume during the specified 4-day period. Drinking water is included in the dietary collection so that ingestion of the target chemicals from <u>all</u> sources can be measured. Solid foods and beverages will be collected separately to reduce sample handling problems and to reduce dilution effects.

Dust Samples

Certain dust samples also will be collected by the field monitoring team to assess potential residential sources of exposures through the skin or by breathing to examine relationships between levels of metals in dust and those collected in other biological and environmental samples. These dust samples will be collected on a window sill and in the respondent's primary living area. Separate samples will be collected at each location; one for analysis of lead, cadmium and chromium, and one for analysis of arsenic.

Soil Samples

Soil samples may be collected to examine the relationship between levels of metals found in soil and those measured in other biological and environmental samples. Soil will be collected by sweeping a certain amount from the most heavily trafficked areas at the primary entrance to the home, and by a ring collection method from exposed soil in the primary outdoor activity areas as determined by discussion with the respondents.

Blood Samples

Several biological media (blood, urine, and hair) may be collected to examine the relationships between personal exposure measurements, environmental measurements, and biological measurements. For some chemicals (i.e., lead and benzene), blood is the best way to evaluate relationships to exposure. A single collection of blood samples will be obtained by one venipuncture by a local health care worker using specially prepared collection tubes supplied by the Centers for Disease Control (CDC).

Urine Samples

For other chemicals (i.e., arsenic) urine provides the best information about the relationship between exposure and biological measurements. Two samples will be collected during the one week monitoring period. Sample collection times will be optimized to provide information about the uptake or elimination of chemicals measured in other personal and environmental samples collected during the week. Morning void urine samples will be collected by respondents who will store the samples in their freezer or in a cooler provided by the field monitoring team.

Hair Samples

Hair may represent a useful indicator for long-term exposure for some chemicals (i.e., arsenic). Since one NHEXAS objective is to characterize long-term exposures, hair will be an important assessment parameter. The field monitoring team will use thinning shears to collect one hair sample at the end of the field monitoring week.

Now that you have an overview of the NHEXAS Phase I data collection procedures, the following chapters will detail your duties as a Field Interviewer on NHEXAS.

3. LOCATING SAMPLE HOUSING UNITS

3.1 Introduction

For the NHEXAS project, the sampling frame will consist only of housing units (HUs) -- a group of rooms or a single room occupied or intended for occupancy as separate living quarters. More detailed definitions of HUs are provided in section 3.4.1 of this chapter.

During the first stage of the sampling process, RTI statisticians selected the sample of 35 primary sampling units (PSUs), within EPA Region 5. Then, within each PSU, four segments were selected for a total of 140 segments across the 35 PSUs. After reviewing efforts in the first PSUs, we decided to work in only 3 segments per PSU. This will increase interviewer efficiency.

A local FI will count and list in a single PSU (three segments) and return the listing information to RTI. From these listings, RTI selects specific HUs for each segment. These selected HUs are called sample housing units (SHUs) and make up your assignment in the segments you will be working.

As a field interviewer on NHEXAS, you are responsible for the final steps of the sampling process. These steps include the following activities, which are explained in detail in this section:

- inspecting segment materials,
- locating the designated SHUs,
- determining that each SHU is a true housing unit.

3.2 Inspecting the Segment Materials

The 9" X 12" white-with-blue-print envelope titled "Segment Materials Envelope" will be returned to you for each segment in your assignment. Along with the original information provided, this envelope will contain your Assignment Control Form (ACF) for that segment. On this ACF will be a computer-generated list(s) of the selected housing units for that segment.

Your primary tool for locating sample housing units (SHUs) will be the computer-generated lists of SHUs on your ACF. However, you may need to refer to some of the other information in the Segment Materials Envelope if you have questions about the location of any of the SHUs. The Segment Materials Envelope will contain the set of Census TIGER maps that were used to count and list the segment.

The selected housing units for each segment will be listed on the computer-generated Assignment Control Forms (ACF) (see Exhibit 3-1). Thus, you will not need to refer to the original hand-written List of Dwelling Units that were completed during counting and listing.

However, the Segment Materials Envelope will contain the original List of Dwelling Units for your reference, as needed.

The Segment Materials Envelope also will contain the Segment Information Sheet, containing any comments that were made about the segment at the time of listing.

Before any field work is begun, you must review all items in the Segment Materials Envelope to familiarize yourself with the location of the segment and the characteristics of the area.

3.2.1. TIGER Locator Maps

Your Segment Materials Envelope will contain a set of TIGER Locator Maps. The purpose of these maps is to orient you to the general location of the segment by showing the surrounding geographic area.

3.2.2. Block Listing Map(s)

The Block Listing Map(s) are the maps which identify the precise location of each housing unit (HU) within the segment. This computer-generated TIGER map is a detailed map of the segment area, with the location of the SHUs indicated during listing. Boundary and internal roads or streets and other significant features are clearly identified and the location of each HU is indicated. Each segment may have one or more Block Listing Maps, depending upon the size and geographic make-up of the segment. The lower right hand corner will describe the number of sets included, e.g. "Set 1 of 2," "Set 2 of 2," etc. Looking at the Block Listing Map illustrated in Exhibit 3-2, note that different symbols have been recorded for each type of HU:

- an "X" for a single HU structure
- a box G with a number inside indicating the number of HUs contained in a multi-unit structure.

Also note that the symbols on the sketch are cross-referenced to the ACF by entry of the HU line number above the symbol. For example, an "X" with the number "3" above it on the Block Listing Map represents the location of the HU listed as line 3 of the ACF for that segment.

At times, it may have been difficult to fit several individual "Xs" on the map, especially if they are clustered tightly together. In these instances, you may have entered a row of single family homes designated by two "Xs" connected by a bar, with the
corresponding line numbers printed above (e.g., 12----37).
X-----X

The Block Listing Map is an important aid in identifying SHUs. Become familiar with it before beginning work in the segment. Carry it at all times for reference to ensure that you are properly identifying SHUs.

3.2.3. Selected Housing Units (SHUs)

These are the housing units that you will contact to obtain participation and collect data. The Assignment Control Form (ACF) you will receive for each segment will list the Selected Housing Units you are to contact. On each ACF, the HUs are listed in the order you are to contact and work them. Each housing unit is listed by address or, if an address was not obvious, a description that will enable you to identify the structure.

3.3. Locating the Segment and the Designated SHUs

The general location of a segment and the most efficient route of travel to reach the area should be determined during your careful review of segment materials. When you arrive at the segment, you first must check to ensure that you can identify each selected housing unit.

3.4. Determining That Each SHU is a Housing Unit

Only structures qualifying as HUs should have been listed. Since the FI who counted and listed was not required to enter structures or talk to residents during listing, it is possible that some listed structures may not qualify as a HU. <u>You must determine the status of each SHU at the time of your initial contact</u>.

3.4.1. Housing Units

For purposes of this study, a housing unit is a group of rooms or a single room occupied or intended for occupancy as separate living quarters. A more detailed definition is reproduced in Exhibit 3-3. <u>Please take time to refer to this more detailed definition before continuing</u>. The following list of types of housing units, although not exhaustive, includes most types that you may encounter:

(1) A <u>**single house**</u> that is intended for occupancy by only one family.

(2) A <u>**flat**</u> or <u>**apartment**</u> in a structure that includes other flats or apartments.

(3) A <u>**basement**</u> or <u>**attic apartment**</u> in a structure that includes one or more other HUs.

(4) <u>**Vacant houses**</u> or <u>**apartments**</u> that could be occupied.

(5) <u>**Hotel**</u> or <u>**motel rooms**</u> that are (a) occupied by <u>permanent</u> guests, or (b) occupied by employees who have no permanent residence elsewhere.

(6) **<u>Residential units under construction</u>**. (NOTE: The List of Selected HUs may include such a unit.)

(7) **<u>Rooms within group quarters or an institutional structure</u>** (such as a fraternity house or dormitory) that serve as the <u>permanent residence</u> of a staff member or house mother and that satisfy the requirements of the HU definition.

(8) **<u>An apartment in a nonresidential structure</u>** used as a permanent housing unit (e.g., an apartment in a warehouse that the caretaker uses for his living quarters).

(9) A **<u>mobile home</u>** or **<u>trailer</u>** used as the permanent residence of the occupants.

(10) A **<u>mobile home</u>** or **<u>trailer location</u>** in a trailer lot or mobile home park in which numbered or otherwise specified spaces are rented. In such a mobile home park, each separate space allocated for one mobile home is listed as a HU, even if no mobile home currently occupies the space; that is, an empty space in a regular mobile home park is treated like a vacant apartment or house.

(11) **<u>Work camps occupied by seasonal workers</u>**. If workers generally occupy a unit for half or more of the calendar quarter, that unit is considered a permanent HU.

(12) **<u>Seasonal dwellings</u>**, such as summer homes, resort cottages, or other part-time homes which could serve as residences are considered HUs. An example of such a residence is one that is heated where heat would be required. However, if someone lives in an unheated HU, it should be included.

(13) **<u>Rooming or boarding houses</u>**. Determine the number of residents in the structure. If there are nine or fewer residents who are unrelated to each other, treat the structure as a housing unit. If there are ten or more unrelated persons, the structure is a group quarters. NOTE: Any living quarters within the structure that meet the housing unit definition must be identified and segregated first, before applying the above rule to the remaining structure.

3.4.2. Units That Do Not Qualify as Housing Units

Certain types of buildings should not have been listed. Those identified below, with the exception of permanent HUs that may exist within them, do <u>not</u> qualify as HUs. If you encounter such units that are included as SHUs in your assignment, classify them with the appropriate code on the Descriptive Questionnaire:

(1) <u>Specified Institutional Units</u>:

- correctional institutions;
- mental institutions;

- homes for handicapped or retarded children;
- nursing, convalescent, and rest homes;
- hospitals;
- other institutions that provide care for residents or inmates.

(2) Military Barracks on a military base.

(3) Unoccupied Structures that have been condemned or are being demolished.

(4) Places of Business, such as stores, factories, etc. (Be sure, however, to look for hard-to-find living quarters behind, above, or inside such places.)

(5) Certain Transient Living Units, such as transient hotels and motels.

(6) Group Quarters—Any structure in which ten or more unrelated persons reside. Examples of group quarters you may encounter are below:

(a) A **boarding house** is defined as a structure in which living space is rented to residents (boarders) who are served regular meals on the premises. Meals are furnished as part of the rental fee, which is usually paid on a weekly or monthly basis.

A **rooming house** is defined as a structure in which living space is rented to residents (roomers) who may receive, in addition to a room, maid or linen service. Meals are not provided regularly.

A combination boarding and rooming house is an establishment which serves meals to some resident persons (boarders) but only rents to others (roomers). The same listing rules apply to this unit as to boarding houses and rooming houses.

(b) **Communes, "Families," "Communities," etc.** -- A commune is a group of unrelated individuals who live together and pool their resources but who have no regular arrangements for contributing to expenses. Such groups may call themselves a family, a commune, an establishment, a community, a farm, etc.

(c) **Convents, Monasteries, and Other Religious Residences** -- Convents, monasteries, and other religious residences having ten or more unrelated persons residing in them should be considered a group quarters.

(d) **Facilities for Housing Students** -- Fraternity houses, sorority houses, or student dormitories may be in the sample. Eligible individuals in student housing facilities are always to be considered residents of group quarters, regardless of the number or relationship of occupants.

(e) **Flophouses, Missions, or Shelters** -- Structures of this type may contain living quarters for individuals who, although somewhat transient, have no other "permanent" place of residence. Flophouses, missions, or shelters are considered group quarters regardless of the number or relationship of the occupants.

(f) **Halfway House** -- A place occupied by persons, such as former prisoners, mental patients, or alcohol or drug addicts. The occupants may be there on either a voluntary or involuntary basis.

(g) **Institutional Staff Quarters** -- Residential quarters that are permanent dwellings meeting the housing unit definition, for caretakers, administrators, or other personnel, should be considered as HUs. Any other staff quarters should be considered as part of group quarters, regardless of the number or relationship of the occupants.

(h) **Migratory Workers' Camp or Logging Camp** -- A migratory workers' or logging camp consists of living quarters, or sites for living quarters, for ten or more seasonal or temporary workers engaged in agricultural activities, including related food processing or in a logging operation. Such living quarters may be temporary in nature and may consist of structures, mobile homes (or sites), tents (or tent sites), vehicles, or a combination of types of living quarters.

(i) **Nonmilitary Barracks and Bunkhouses** are structures that provide living space for a number of people, either in large general areas or in small sleeping areas or rooms.

(j) **Retirement Residences and Independent Group Residences for the Elderly, Handicapped, and Functionally Disabled** -- These are residences, such as foster homes and board and care homes, that provide a home environment in the community for the elderly, handicapped, and functionally disabled as an alternative to institutional care. The occupants must own or rent their living quarters. Meals may or may not be provided. Some supportive services are offered, such as supervision of self-administered medication and diet, assistance with housekeeping, and arrangement of transportation and recreational activities. If there are ten or more unrelated persons residing in these units, they should be considered a group quarters.

Exhibit 3-4 provides a chart identifying different structure categories and their respective eligibility for NHEXAS.

3.5. Calling RTI for Assistance

These field sampling steps are of critical importance. All aspects of the area sample design used by RTI for NHEXAS have been developed so that data collected for this study will be valid, reliable and accurate. However, the design is only valid if each interviewer carries out the final steps of sampling with care and precision. Even seemingly slight errors or oversights in sampling activities completed by an interviewer may necessitate costly and time-consuming corrective action.

Careful attention to the instructions presented in this chapter should provide necessary information to complete the steps involved in checking the listing. Those steps are extremely important to the accuracy of the sample, and, therefore, of the data collected. <u>If, at anytime, you are unsure of the correct procedures to follow, first call your supervisor to discuss the situation before continuing</u>. If your supervisor is unavailable, all sample-related questions should be discussed with Francine Burt. She may be reached by calling RTI's toll-free number (1-800-334-8571) between 8:30 a.m. and 5:00 p.m. Eastern time Monday through Friday.

**[STOP AND COMPLETE EXERCISE 1
IN THE HOME STUDY WORKBOOK]**

Exhibit 3-1

Assignment Control Form

NATIONAL HUMAN EXPOSURE ASSESSMENT STUDY
ASSIGNMENT CONTROL FORM

PSU: 02
Segment: 023

Completed Interviews Needed: 2
Date Assigned: 06/09/95
Interviewer:

	JAN 1	JAN 2	JAN 3	JAN 4	JAN 5	JAN 6	JAN 7	JAN 8	JAN 9	JAN 10	JAN 11	JAN 12	JAN 13	JAN 14	JAN 15	JAN 16	JAN 17	JAN 18	JAN 19	JAN 20	JAN 21	Comments:	FINL CODE
LINE#: 58 ADDRESS: 27446 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 43 ADDRESS: 27312 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 51 ADDRESS: 27384 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 38 ADDRESS: 27144 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 16 ADDRESS: 27313 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 56 ADDRESS: 27430 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 36 ADDRESS: 27100 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 57 ADDRESS: 27438 Hales Avenue APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							

Exhibit 3-2

Block Listing Map

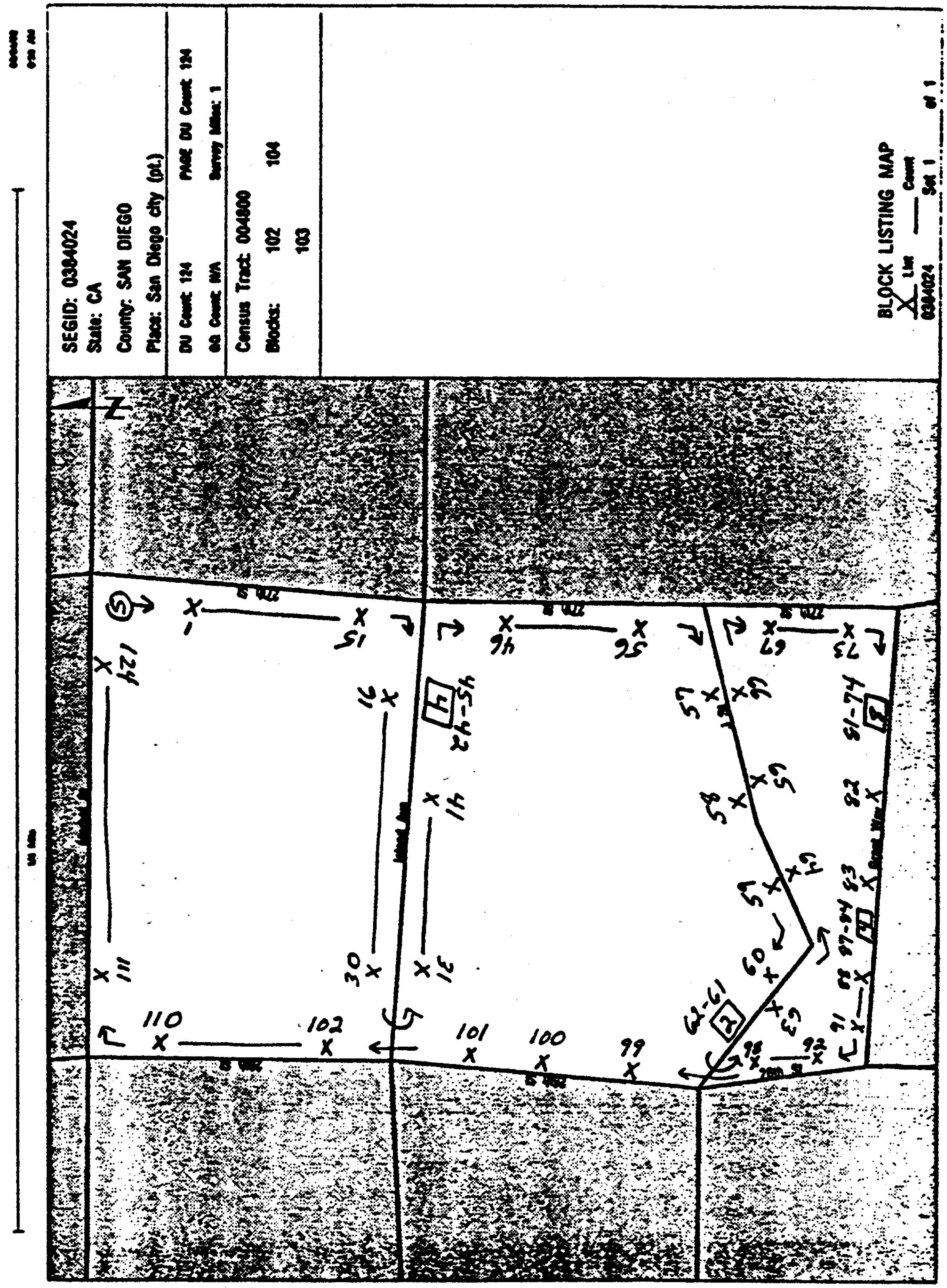


Exhibit 3-3

DEFINITION OF A HOUSING UNIT

A housing unit is a group of rooms or a single room occupied or intended for occupancy as separate living quarters; that is:

(1) The occupants do not live and eat with any other persons in the structure

AND

(2) There is either direct access from the outside or through a common hall

Occupancy: If occupied, the household may consist of a family group or an individual living alone. It may also be occupied by nine or fewer unrelated persons. (NOTE: If ten or more unrelated persons occupy the unit, it is considered "group quarters" and is not to be treated as a **selected** housing unit.)

Definition of Direct Access: An entrance **directly** from the outside of the structure to the living quarters

OR

An entrance to the living quarters from a hall, lobby, or vestibule used by the occupants of more than one unit. (NOTE: Living quarters do not have direct access if the only entrance is through a hall or room of another unit.)

Exhibit 3-4

NHEXAS Eligibility

			Eligible for NHEXAS?
Housing Units (HUs)			
-	Civilian (e.g. house, apartment, condo, townhouse, etc.)		YES
-	Military (e.g., family housing, civilian employee housing, etc.)		YES
Group Quarters Units (GQUs)			
-	Noninstitutional	Civilian (e.g., rooming/boarding houses, facilities for housing students, shelters, halfway houses, migratory workers' camps, religious residences, retirement residences, etc.)	NO
		Military (e.g., barracks, ships, etc.)	NO
-	Institutional	Civilian (e.g., correctional institutions, nursing homes, mental institutions, etc.)	NO
		Military (e.g., VA Hospitals, military prisons, etc.)	NO
Certain Transient Living Units			
-	Civilian (e.g., General hospitals, transient hotels and motels, etc.)		NO
-	Military (e.g., Military barracks, transient visitor housing, etc.)		NO

4. DATA COLLECTION

4.1 Overview

Your job as a NHEXAS Field Interviewer involves five activities:

- Screening selected HUs for eligibility with the Descriptive Questionnaire
- Administering the Baseline Questionnaire to selected respondents
- Enrolling respondents for field monitoring
- Scheduling field monitoring visits
- Training on the Time Diary and Activity Questionnaire

In the previous chapter, we discussed locating the NHEXAS Sample Housing Units. This chapter will detail the rest of the tasks you will perform for NHEXAS.

4.2 Housing Unit Screening

The NHEXAS Descriptive Questionnaire will be used to screen the SHU's in each segment for eligibility. Screening is the process of obtaining information about each sample housing unit (SHU) to determine if it has a resident who is eligible for NHEXAS.

Since you identify eligible respondents within HUs by using the roster information you collect on the Descriptive Questionnaire, it is a very important component of your NHEXAS assignment. <u>Make every effort to obtain complete and accurate screening information from the sample HUs in your segments</u>

4.2.1 The Housing Unit Screening Process

This part of the section will provide you with procedures for completing the Descriptive Questionnaire. The Descriptive Questionnaire consists of four sections; each described below. Detailed Question-by-Question Specifications are located in Appendix B. A copy of the Descriptive Questionnaire is located in Appendix C and another copy has been provided in this training package for you to follow as you read through the following sections.

<u>*Record of Calls*</u>

The Record of Calls is located on Page 1 of the Descriptive Questionnaire. Use this page to summarize <u>each</u> attempt you make to contact and screen/interview the household.

Household Eligibility

Once you have contacted the household, you must determine if it is eligible to be screened. For NHEXAS, a household is eligible for screening if it is a primary residence, and not a group quarters. **('Primary residence' and 'group quarters' are defined in the Descriptive Questionnaire Question-by-Question Specifications; Appendix B.)**

After you have introduced yourself and the study, verify the exact address and enter it in question D1 of the Descriptive Questionnaire. Also, make any corrections necessary to the address on your Assignment Control Form (ACF).

Next, you will need to identify a resident of the housing unit who is 18 or older. Screening must be conducted with an adult resident of the SHU. No proxy screenings are allowed. That is, the screening information must come from a housing unit resident who is 18 or older. The only exception to this rule is if you encounter a language barrier, and a minor in the household is able to translate for the screening respondent. The minor can only translate, however, they can not act as the screening respondent.

Once you have an eligible screening respondent in the household, you will then determine if the household is eligible to be screened by verifying that it is not a vacation home nor a group quarters unit. If the household is eligible to be screened, continue with the screening process.

If the household is ineligible, you will terminate screening and record the appropriate code on the screening portion of the Descriptive Questionnaire Record of Calls. An example of when you would terminate screening would be if you were told the entire family was moving out next week. No one in that household is going to live there for most of the time during the data collection period, so their answer would be "No" to D3 and the appropriate final code would be 10, "vacant."

If repeated attempts at screening the household yield no contact, try to get the screening information from a neighbor. The information that you are allowed to obtain from a neighbor is:

- Number of persons in the SHU
- Age (or age range) of each person in the SHU
- Sex of each person in the SHU
- Race/Ethnicity of each person in the SHU

This information will be enough for you to determine if anyone in the selected household is eligible for NHEXAS. (Refer to 'Respondent Selection' on the next page). If no one is eligible, place the appropriate screening code (29) in the Record of Calls and proceed to the next designated SHU.

If you determine that someone in the selected household is eligible, ask the neighbor for the best time to find someone in the selected household at home. Make return visits to the SHU until you contact an appropriate screening respondent, verify the information already collected from the neighbor, and complete the screening process.

Household Roster

If the household is eligible to be screened, your next step will be to complete the household roster by obtaining the name of each person who lives there. Start with the person who owns or pays rent on the residence. Then record the names of the rest of the household members. Begin with the oldest person and work down to the youngest person who lives there. If the respondent does not provide housing unit members in order by age (oldest to youngest), leave them in the order in which they are given. DO NOT ERASE ON THE ROSTER! If the home is owned or rented by more than one person, choose the person mentioned first as the first person on the roster. If the screening respondent refuses to give you names, enter initials or relationship to the first person listed on the roster.

To verify that your list of household members is complete and accurate, the Descriptive Questionnaire contains questions that will have the screening respondent think of any other persons who might consider this to be their primary place of residence and those that were entered erroneously. Add any newly identified person and delete any wrongly listed household member by placing a line through their row on the roster. Again, DO NOT ERASE.

Complete the household roster on each household member by asking questions D6c through D6p of the Descriptive Questionnaire. These questions obtain demographic and other important information on each member of the household, such as smoking status and where they usually spend their time.

Home Characteristics

There are three short questions in this section which quickly identify the kind of structure the screening respondent lives in.

Respondent Selection

Once you have completed the household roster, you are ready to begin the sampling procedures to find out if someone in the household is eligible to participate in the study.

To determine who, if anyone, in the household is eligible to participate, complete the following steps:

- Count the number of undeleted household members listed in Column B of the household roster.

- Consult the Table of Participant Line numbers (4-1) for that PSU to determine the roster number of the person selected to participate. First, write in the correct Segment ID and HU Line Number in the next available spaces of the two left-hand columns of the table. Then, find the number of people rostered for that household in the top row of numbers in the right-hand part of the table (Number of Eligibles Rostered). At the point where these columns and rows meet is the roster number of the person selected to participate in NHEXAS. If the selection chart indicates 00, no one is selected.

- In Column A of the household roster, circle the roster number of the selected respondent. If no one is selected, leave Column A blank.

- Enter the roster number of the selected respondent in D10a of the Descriptive Questionnaire, and get the full name of the selected respondent. If the selected respondent is under 18 years of age, you will also need to get the full name of a parent or guardian.

Whether or not a respondent is selected, we will need to collect information for verification purposes. If the respondent has a telephone, obtain the number and find out the best time of day for RTI to reach them. If they do not have a phone, probe to get a phone number where they can receive calls (i.e., work phone, neighbor's phone).

If the respondent refuses to give you a phone number, assure them that this information will be used for verification purposes only. An example of what you might say is below:

> "My supervisor may wish to contact you to verify that I have completed my work satisfactorily. In order for her to do this, may I have your full name and your telephone number? Again, this information will be used <u>only</u> as a means of verifying the quality and accuracy of my work."

4.2.2 Administrative Tasks

Procedures for SHUs which yield a respondent are different from those for SHUs which yield no respondents. The correct method for handling each situation is outline below. Refer to your copy of the Descriptive Questionnaire so that you may follow along as you read through all the necessary steps.

<u>Housing Unit Member Selected</u> -- Complete the following steps:

1. Complete Selection Information in D10a-c.

2. Complete Verification Information in D11 AND D12.

3. Document contacts for screening on the Descriptive Questionnaire Record of Calls. Include the date, day of week, and time of each contact, and the appropriate Result Code. Also enter your FI ID number, and any "comments" you wish.

4. Circle final screening code (31). (Screening codes will be discussed in the next section.)

5. Administer Baseline Questionnaire. (Pay $5.00 incentive)

6. Circle appropriate interviewing code.

7. Enroll respondent in field monitoring.

No Housing Unit Member Selected -- Complete the following steps:

1. Complete Verification Information in D11 and D12.

2. Document contacts for screening on the Descriptive Questionnaire Record of Calls. Include the date, day of week, and time of each contact, and the appropriate Result Code. Also enter your FI ID number, and any "comments" you wish.

3. Circle final screening code (29 or 30). (Screening codes will be discussed in the next section.)

4. Thank respondent and terminate screening.

4.2.3 Screening Result Codes

Screening result codes 01-31 are assigned and reported during the process of screening SHUs. Some screening codes are "PENDING" codes (01-09) and indicate that a final resolution has not been obtained. Codes 10-31 are "FINAL" screening codes and indicate that the housing unit screening process has been completed. Screening codes and their definitions are provided in the following summary:

SCREENING RESULT CODES

Pending codes (case not finalized)

01	No one at HU	Plan additional visits at different times of the day and on different days of the week.
02	Eligible Screening Respondent unavailable	If an eligible screening respondent (resident of **housing unit** who is age 18 or over) is not available, ask for a day and time they are usually at home. The screening respondent MUST be an adult resident of the SHU.
03	Neighbor indicates occupancy	If a neighbor indicates the unit is occupied, try to obtain a time that you would be able to contact the occupants.
04	Physically/mentally incompetent	Attempt to locate another, competent resident. If none exists, verify the status of the unit with a neighbor.
06	Language barrier	If you do not speak the language, contact your supervisor. Specify language in the Comments section. A bilingual neighbor or child can be used to interpret the screening questions/answers for an eligible screening respondent.
07	Refusal	Make all possible attempts to convert the refusal. If you are unable, contact your supervisor for further instructions.
08	Unable to locate HU	Contact your supervisor for further information.
09	Other (Specify in Comments)	For any other pending cases, specify the current status.

Final Codes (case finalized)	(Codes 10-21 must be approved by your Supervisor before you finalize the case.)

10*	Vacant	If the unit appears empty, verify with a neighbor or landlord that the unit is indeed vacant. **Obtain telephone verification information.**	REQUIRES SUPERVISOR APPROVAL
11	No one at HU after repeated visits	Be sure you have made visits on different days of the week and at different times of the day.	
12	Eligible Screening Respondent unavailable after repeated visits	Be sure you have made visits on different days of the week and at different times of the day.	
13*	Not primary residence	Verify with a neighbor that the unit is not used as a primary residence. **Obtain telephone verification information.**	
14	Physically/mentally incompetent	Verify with a neighbor that no competent respondent lives at the unit.	
15	Language barrier Specify: _______________	If you are unable to complete screening because of a language barrier, notify your Supervisor immediately. Specify language in the space provided.	
17	Refusal	Without antagonizing the respondent, attempt to convert the refusal. Discuss the situation with your Supervisor prior to assigning code 17.	
18*	Not a housing unit	If the unit does not meet the definition of a housing unit (see Chapter II) or does not exist, verify the situation with a neighbor or landlord. **Obtain telephone verification information.** Examples are a demolished unit, a unit that has merged with another, or a unit that is not used as a residence but is used for storage or business purposes.	
19	Group Quarters	If the unit is actually a group quarters that was incorrectly listed as an HU, enter final code 19. Call your Supervisor for instructions on how to proceed.	
21	Other (Specify in Comments)	Explain any other situation in comments.	
29*	No one selected for interview-minimal roster	No one within the unit is selected to be interviewed and minimal roster information was provided by a neighbor. **Obtain telephone verification information.**	
30*	No one selected for interview.	No one within the unit is selected to be interviewed. **Obtain telephone verification information.**	
31	One selected for interview	A housing unit member is selected to be interviewed.	

NOTE: For final screening codes 10 ("vacant"), 13 ("not primary residence"), 18 ("not a housing unit"), 29 ("no one selected for interview-minimal roster"), and 30 ("no one selected for interview"), you must obtain the full name and telephone number of your contact person (typically a neighbor for codes 10, 13, 18, and 29 and the screening respondent for code 30). The information will be recorded in the spaces provided in questions D11-D12 of the Descriptive Questionnaire. This information will be used for verification purposes only, that is, to verify that you completed or attempted to complete screening at that particular SHU. And, you will obtain this information only for cases 10, 13, 18, 29, and 30, which means an interview will not be conducted at that SHU.

4.2.4 Interview Result Codes

Once a screening code of 31 (one selected) is assigned, you no longer will use screening codes. Instead, you will use interview codes 51-78 to communicate the status of your attempts to obtain an interview with the selected respondent. In the process of attempting to interview respondents, use pending interview codes 51-60, as explained below:

INTERVIEW RESULT CODES

Pending Codes (case not finalized)

51	No one at HU	Plan additional visits at different times of the day on different days of the week.
52	Appointment Broken	The respondent did not keep an appointment for interview. Use this code even if you are able to reschedule another appointment. Explain the circumstance of the broken appointment in the "Comments" section.
53	Respondent unavailable, call back	Attempt to find a convenient time to contact the respondent and make an appointment for that contact.
54	Breakoff (partial interview)	If possible, schedule an appointment to complete the interview.
55	Physically/mentally incompetent	If respondent's incompetence seems temporary, return at a more convenient time. If difficulty is permanent, but the respondent is capable of participating, provide as much assistance as you can (i.e., read all questions and record responses for physically incompetent respondent). There can be no proxy respondents.
57	Language barrier	If you do not speak the language, contact your Supervisor. Specify the respondent's language in the Comments section. There can be NO interpreters for an interview.
58	Refusal	Make all possible attempts to convert the refusal without antagonizing the respondent. Contact your Supervisor for further instructions.
60	Other (Specify in Comments)	For any other pending cases, provide a detailed explanation of the field circumstances.

Final interview codes will be assigned after you have completed the Baseline Questionnaire with the selected respondent or when your supervisor determines that you should no longer pursue the interview. Final interview codes and their definitions are provided below:

INTERVIEW RESULT CODES (Continued)

Final Codes (case finalized)

70	Baseline Interview complete, agrees to monitoring	Respondent completes Baseline Questionnaire and agrees to participate in field monitoring.	
71	Baseline Interview complete, refuse monitoring	Respondent completes the Baseline Questionnaire, but refuses to participate in field monitoring.	
72	Refusal	Respondent refuses both the Baseline Questionnaire and the field monitoring. Without antagonizing the respondent, attempt to convert. Discuss the situation with your Supervisor prior to assigning code 72.	REQUIRES SUPERVISOR APPROVAL (codes 72–78)
73	Breakoff (partial interview)	If after repeated attempts the rest of the interview is not completed, forward all completed materials to RTI.	
74	No one at HU after repeated visits.	Be sure you have made visits on different days of the week and at different times of the day.	
75	Respondent unavailable after repeated visits	Contact other housing unit members or neighbors to obtain a day and time the respondent is usually at home.	
76	Physically/mentally incompetent	Use this code if the respondent is physically/ mentally unable to answer the questions. Again, there can be no proxy respondents.	
77	Language barrier Specify: _______________	Use this code if the case cannot be completed due to a language barrier. Specify the housing unit language in the space provided.	
78	Other (Specify in Comments)	For any other situations, provide a detailed explanation of the field circumstances.	

If someone from the household is selected to participate in NHEXAS, your next two tasks will be to administer the Baseline Questionnaire and enroll them in the field monitoring phase of NHEXAS. (Enrollment procedures will be covered in Section 4.4.) If you encounter an initial refusal (result code 58), enter as much information as you can about the refusal so that you can discuss methods for recontact with your supervisor.

4.3 Administering the Baseline Questionnaire

4.3.1 Beginning the Interview

While the Descriptive questionnaire is designed to collect information regarding the entire household, the Baseline questionnaire is designed to collect information pertaining only to the selected respondent. The Baseline Questionnaire is a short, interviewer-administered document that details respondent demographics, personal exposure activities, health status and housing characteristics. Let the screening respondent know which household member has been selected to participate and ask to speak with him/her. For a selected respondent age 18 or older, begin the interview by obtaining verbal consent from him/her to complete the Baseline questionnaire. Use the introductory verbal consent script below:

> To participate in this study, we need you to help us complete a short questionnaire at this time; then, at a later date, to help us collect some environmental and biological samples, which I will explain in more detail after we complete the questionnaire. This questionnaire will take about 30 minutes for us to complete. All of your answers will be kept strictly confidential, and you do not have to answer any questions you do not wish to. Let's begin.

If the respondent is younger than 18 years of age, you must have parental permission to administer the Baseline Questionnaire. This permission includes the parent's assessment of the minor's ability to provide truly informed consent. Use the introductory verbal consent script below with the parent or guardian:

> To participate in this study, we need your child to help us complete a short questionnaire at this time; then, at a later date, to help us collect some environmental and biological samples which I will explain in more detail to both of you after we complete the questionnaire. This questionnaire will take about 30 minutes to complete, and you may help your child answer any or all of the questions. All answers will be kept strictly confidential, and (he/she) does not have to answer any questions he/she does not wish to. Do you think (you and) your child will be able to help us complete the questionnaire at this time, and will your child be able to understand our explanation and request?

If the parent refuses, enter the appropriate interview code in the Descriptive Questionnaire's Record of Calls, and politely terminate the interview.

If the parent gives consent for the minor to complete the questionnaire, you will next have to get verbal consent from the minor. Use the introductory verbal consent script for the 18 and older respondent, additionally letting the minor know that his/her parent(s) can help answer any or all of the questions. Once the minor has acknowledged that he/she understands, and is willing to complete the Baseline questionnaire, begin the interview.

If the selected respondent is not at home or is not able to complete the interview at that time, schedule a specific time to return.

4.3.2 General Questionnaire Format

The NHEXAS Baseline Questionnaire is comprised of five different sections:

Demographics	Provides more detailed information about the selected respondent, including smoking history.
Personal Exposure Activities	Details different locations in which the respondent spent their time during the last year, as well as the different pollutants they may have been exposed to.
Health Status	Asks about the respondent's health history.
Basic Housing Characteristics	Details the components of the structure the respondent lives in.
Family Income	Used for Statistical purposes.

Once the respondent completes the Baseline Questionnaire, you will pay them an incentive of $5.00. Make sure the respondent signs an Incentive Receipt Form (see Chapter 10) for the money, and leave one copy of the Receipt with them. Of the other two copies, one will go to the field monitoring team (as proof that the respondent has received this incentive), and you will send the other to RTI, along with your PT&E.

4.4 Enrollment

4.4.1 Sample Groups

After the respondent completes the Baseline Questionnaire, your next, and most important, task is to enroll them in the field monitoring portion of the study. At this point, you will explain the field monitoring procedures in more detail, show the respondent photos of some of the equipment involved, and get the selected respondent to agree to complete one or more of the NHEXAS field monitoring activities.

We refer to the different sample groups as VOCs, Particles, Food and Biologicals. Exhibit 4-2 details what samples are collected in each of these groups, along with the incentive for each sample or group of samples collected. As you will notice, the incentives for the respondent to participate increase as the field monitoring gets more involved. It is your job at this point to "sell" the study to the selected respondent, and to get them to agree to complete as many activities as possible. All respondents must, at the very least, agree to participate in the VOCs group to be enrolled in NHEXAS.

Below is a description of each sampling technique that will be undertaken in the field monitoring activities.

Passive Air Sampling

The 3M Organic Vapor Monitor (OVM) badge will be used to passively collect volatile organic compounds (VOCs) in personal, indoor, and outdoor air. Sample collection is initiated by removing the cap from the OVM. The VOCs diffuse through a fixed membrane at a known rate and are absorbed onto activated charcoal disks. The OVM badge will be attached on or near the collar of the respondent for a period of approximately six days to measure total inhalation exposure. For a subset of respondents, a second badge will be covered during those periods spent at work and occupational exposure will be measured by the difference between the two measurements. For this subset, you will need to recruit the first two people you enroll in your PSU who work full-time.

Over these six days, badges also will be deployed in the main living area of all homes and outdoors at a subset of homes (determined by the field monitoring team) to assess the sources of VOC exposure. At the end of the monitoring period, each badge will be capped and stored until it is shipped to the analysis laboratory.

Active Air Sampling

Personal exposure to particles is to be estimated by collection of air samples using a personal sampling system designed specifically for the NHEXAS program.

As shown in Exhibit 4-3, this system consists of a flow-controlled sampling pump, a pack of four standard AA-size alkaline batteries (Duracell or equivalent), a set of parameter sensors collecting data on the system performance, with storage in a data logger, a timer to cycle the pump ON and OFF in a pre-determined manner to effectively represent a specified extended sampling period, while conserving the pump battery capacity, and a carrying case to ease transporting the system in a personal sampling mode, while reducing the burden (noise, weight, bulkiness) on the study subject as much as possible. The sampling inlet is attached to the outside of the carrying case. The respondent will wear the personal sampling system for approximately six days to measure total inhalation exposure.

The basic sampling package for monitoring particle concentrations at a fixed location indoors incorporates the same basic components as the personal monitoring system. The primary exceptions are that instead of mounting the system on a person, a sound-proofed, thermally insulated elliptical form supported by a tripod is utilized to simulate the body, while the interior serves as a container for the system components (see Exhibit 4-3). Batteries are used to operate the system, which eliminates wires that may prove intrusive or unsafe. For the indoor sampler, the same 4-cell, AA battery packs as in the personal samplers are used to power the samplers during the 6-day sampling. A sampling inlet is mounted on the outside surface of the elliptical form, with the tubing connecting the pump routed through holes in the form exterior. Adequate soundproofing is incorporated inside the form cavity to reduce the noise level, to reduce obtrusiveness. The appearance, physical size and layout of the package are designed to be as unobtrusive as possible.

Outdoor particle concentration monitoring will take place in only a subset of homes determined by the field monitoring team. The sampling package for monitoring particle concentrations outdoors uses the same basic components as the indoor monitoring system, with two exceptions -- the addition of a removable rain shield and the optional replacement of the tripod base with a metal ground stake that can be conveniently driven into the ground for support at the necessary 2 meter elevation above the ground. D-cell battery packs are used to operate each sampler in the system, which eliminates wires that may prove intrusive or unsafe. The degradation of battery performance with decreasing temperature in winter conditions necessitate the addition of thermal insulation and a heater inside the form cavity. The additional space inside the form holds up to three pump battery packs, and a separate battery for the cavity heater, if AC power is not readily available. The aerosol inlet is mounted on the outside surface of the elliptical form, with the tubing connecting the pump routed through holes in the form exterior.

Water

Respondents will receive verbal and written instructions from the field monitoring team for collecting one standing water sample. This sample will be collected after a 4-hour period during which no plumbing fixtures in the home are used. A field monitoring team member will retrieve the collected sample during one of the last two scheduled visits to the home. At that visit, the field monitoring team will also collect additional samples of drinking water from the home. If the respondent's primary drinking source is tap water, the samples of tap water will be collected after running the faucet for three minutes.

Dust

Dust samples will be collected during the second field monitoring team visit. Wipe samples of house dust will be collected from a window sill and/or other surfaces by wiping them with either polyethylene filters or a commercially available wetted cleaning towelette. A template will be used to define a 150 cm^2 area on the surface within which the sample will be collected.

Soil

Soil samples will also be collected during the second field monitoring team visit and only at a subset of homes determined by the field monitoring team. One sample will be collected from the households primary outdoor activity area (OAA) and the other will be collected from the household's entrance way. The monitoring team will identify the location of the primary OAA through discussions with the respondent. The location from which the sample is collected should meet the following criteria:

a. The location should be an area of activity such as a garden area or a child's play area.

b. The soil should be exposed and available for human contact.

A PVC solid collection ring will be embedded into the soil in the OAA selected to collect this sample. If there is no soil on the property, the field monitoring team will collect two sweep soil samples.

Whenever possible, the sweep dust sample will be collected near the main entrance of the home. For a private residence, this will involve sweeping an area of the porch, stoop, stairs, or sidewalk adjacent to the entrance. For an apartment, this will involve sweeping an area of the hallway outside of the entrance. If a doormat is present, the sample will be collected adjacent to the doormat. Approximately two grams of dust will be collected per sample.

Food

Respondents will collect duplicate portions of all foods and beverages they eat each day for four consecutive days. They will keep a simple list of each food and beverage they consume on each of the four days. Foods and beverages will be collected from all meals and snacks over the four-day period, whether consumed at home or away from home. Nonprescription vitamins will be included, but medicines, prescription vitamins, and other non-food items (gum, chewing tobacco, etc.) will not be included. Respondents will not be responsible for estimating portion sizes or providing detailed dietary information. Duplicate portions will be prepared by visual estimation. The field monitoring team will estimate or measure collected food portions, review the daily food diary and the food follow-up questionnaire for each food collection day.

Blood and Urine

Respondents will provide one blood sample and two urine samples during the weeklong monitoring period. When available, phlebotomists from local Health Departments will draw the blood samples; otherwise, local health care workers with appropriate expertise will be hired. The blood samples will be drawn during the last household visit of the monitoring period.

Respondents will collect urine samples (morning void) on the second and last field monitoring team visits. Specimen containers will be supplied to respondents and the samples will be stored in storage containers in their freezer until the following field monitoring team visit.

Hair

Scalp hair samples will be collected from each respondent that agrees to provide the sample. Thinning shears will be used to cut full hair strands as close to the scalp as possible. The field monitoring team will collect these samples from the rear base of the head; if insufficient hair is present in this area, the sample will be collected from a different area or areas of the head. The cut hair will be placed immediately into a zip-lock bag. The minimum sample size is approximately 100 mg.

4.4.2 Presentation

The order in which you present the groups of activities to the respondent may play a part in obtaining participation.

There is one presentation order you should be using, indicated by a "V." You should describe the VOCs sample group first. <u>If the respondent refuses, terminate the interview</u>. If he or she agrees, proceed by explaining the other sample groups in the following order -- Food, Particles, and Biologicals.

Exhibit 4-4 is a flowchart of this presentation process. On the next few pages, we have provided scripts that include the issues you need to present to the respondent and the order in which to present them. As with most scripts, it is not intended to be memorized or read verbatim to respondents. You need to adapt the script to your personal style and manner of speaking, but it is of extreme importance that all components of the script be included in your presentation. These components are requirements of informed consent. The respondent has the right and you have the obligation to ensure that he/she hears and understands all the components.

If the selected respondent is a minor, you are required to obtain parental consent prior to beginning the field monitoring explanation with the minor respondent. Give the parent a quick overview of the field monitoring process and ask for his/her permission for the child to participate, as well as an assessment of the minor's ability to understand and comply with required activities. During this overview, do not mention the incentives to the parent. We want to make sure that a parent does not pressure his/her child into participation because of the money involved. Once you obtain parental consent, you will need to provide the parent and minor respondent with a detailed explanation of the field monitoring activities. It would be best to provide the detailed explanation to both the parent and the minor respondent at the same time. Explain to the parent that it would be easier and quicker to provide the information about the field monitoring component at the same time if he/she didn't mind. If the parent does not want you to explain the field monitoring in detail to the minor until he/she has approved, then you will have to explain the field monitoring to the parent before explaining it to the minor. Following the explanation to the parent, hand him/her the Parental Consent Form and ask him/her to read and sign it. If the parent refuses to consent to the minor's participation, then you cannot speak with the minor. However, even if the parent consents, the minor still has the right to refuse to participate.

Script for "V" Presentation

> [NAME OF RESP], Thank you for taking the time to complete our study questionnaire. As an expression of our appreciation, here is $5.00. For bookkeeping purposes, I need you to sign this receipt that documents that I did pay you $5.00.
>
> [HAND RESPONDENT THE INCENTIVE RECEIPT AND HAVE THEM SIGN IT]
>
> As I said earlier, there is a field monitoring component to our study. In this part of our study, we are interested in determining the kind of chemicals and the quantities that people are exposed to during normal activities. The best way to determine what any person is exposed to is to sample the air, water, dust, and soil that people come in contact with every day.
>
> To determine your personal exposure to air pollutants, we have a small badge for you to wear on your shirt collar or somewhere near your face.
>
> Let me show you a picture of what you'll be wearing.
>
> [SHOW PICTURE OF VOC BADGE]
>
> We would like you to wear this badge for six days. It is very light and can be worn everywhere except in the water or during rigorous physical activity. During those six days, you can take the badge off when you go to bed, take a shower, or both, or are involved in any rigorous physical activity. All other times you will be wearing the badge. A two person field monitoring team will make three visits to your household over a seven-day period. These visits will last approximately one to one and a half hours. During the first

visit, the field monitoring team will provide you with more details about the badge and leave you an information sheet and number to call in case you have any questions.

If you lose or damage the air monitors, you are not responsible or liable for repairing or replacing them. Bottom line, it won't cost you anything if something happens to them.

Let me also say the air monitors are completely safe and can be used around small children and pets. There are no exposed moving parts that could cause injury.

While you are wearing the badge, you will also keep a diary each day of where you spent your time and the activities you were involved with. I'll go over this diary with you in a few minutes.

Along with these air monitors, the field monitoring team will collect a couple of small samples of your drinking water, some house dust, and possibly some soil from your yard.

When the field monitoring team comes back to pick up your air monitors on the last household visit, they will pay you $15.00 if you complete the full six-day monitoring. In addition, after the study is completed, you will receive a report from the six-day monitoring showing measurements from your personal exposure monitor.

Do you have any questions? Does this sound like something you could help us with?

[IF THE RESPONDENT REFUSES, POLITELY TERMINATE THE ENROLLMENT. IF THE RESPONDENT AGREES TO PARTICIPATE IN THE VOCS, CONTINUE:]

Another way that people are exposed to chemicals is through the food they eat, so we are also asking participants to give us an exact duplicate of the foods and beverages they consume over a four-day period.

You will need to provide us with exact duplicates of what you eat and drink every day in those four days.

On the first household visit, the field monitoring team will provide you with two coolers to keep the food in, and they will give you $60.00 for the extra food. Here's an example of what the coolers will look like.

[SHOW PICTURE OF FOOD COOLER]

Essentially, this means if you prepare or cook something, you need to prepare an exact duplicate. If you buy something, such as a fast food sandwich, you will need to buy two and save the second one for the sample collection.

You will also need to include duplicates of everything you drink, like glasses of water, cups of coffee, and cans of soda.

Each day you collect food, you will complete a daily food diary where you write down everything you collect. At the end of the field monitoring period, the field monitoring team will collect your food samples, check on your food diary, and give you a food followup questionnaire to complete. They will also give you an additional $15.00 for participating in this sample group. Do you have any questions? Does this sound like something you could help us with?

[IF THE RESPONDENT REFUSES, ASK IF HE/SHE WOULD BE WILLING TO PROVIDE A DUPLICATE FOOD SAMPLE FOR ONLY THREE DAYS INSTEAD OF FOUR. THE RESPONDENT WILL RECEIVE $45.00 TO PAY FOR THE EXTRA FOOD. WHETHER THE RESPONDENT AGREES TO PARTICIPATE IN THIS SAMPLE GROUP OR NOT, PROCEED WITH THE PARTICLES SAMPLE GROUP DESCRIPTION.]

To determine your personal exposure to air pollutants on another level, we have designed a special air monitor that is worn as a fanny pack around the waist. Its very light weight and can be worn almost everywhere except in the water or during rigorous physical activities such as running, playing sports, heavy lifting, etc.

Let me show you a picture of what you will be wearing.

[SHOW PICTURE OF PERSONAL AIR MONITOR]

The fanny pack is made out of a light weight nylon materials, is very easy to snap on and the belt is adjustable. Inside the nylon pack is a pump and the batteries to run it.

You will notice attached to the pack is a piece of equipment that looks like a camera lens or a microphone. That is the device that will collect the samples of air.

On the first field monitoring visit, they will get you fitted with one of these Personal Air Monitors. They will show you how it works and then fit it to you so you can see how it feels and make sure it is comfortable.

We are asking that you wear this air monitor for the six days that you wear the badge. During those six days, you can take the air monitor off when you go to bed, take a shower or bath, or are involved in any rigorous physical activities. All other times you will be wearing the air monitor. The field monitoring team will provide you with more details about the air monitor and leave you an information sheet and number to call in case you have any questions.

Like the badge, if you lose or damage the air monitor, you are not responsible or liable for repairing or replacing it, and the air monitors are completely safe and can be used around small children and pets.

In addition, the technicians will place a fixed air monitor in your house, and they may ask to place one in your backyard. Here are what the fixed air monitors look like.

[SHOW PICTURES OF INDOOR AND OUTDOOR MONITORS]

When the field monitoring team comes back to pick up your air monitors on the last household visit, they will pay you $40.00 in addition to the $15.00 for the badge, if you complete the full six-day monitoring. In addition, after the study is completed, you will receive a report from the six-day monitoring showing measurements from your personal exposure monitor. Do you have any questions? Does this sound like something you could help us with?

[WHETHER THE RESPONDENT AGREES TO PARTICIPATE IN THIS SAMPLE GROUP OR NOT, PROCEED WITH THE BIOLOGICALS SAMPLE GROUP DESCRIPTION.]

To measure how these possible pollutant pathways affect you, we are also asking you to provide a few biological samples.

We're asking you to provide one blood sample for $20.00, two urine samples for $5.00, and one hair sample.

A trained local health care professional will take the blood sample on the last day of field monitoring.

The field monitoring team will give you the necessary containers for you to collect the two urine samples, and they will pick these up on the second and last household visits.

The field monitoring team will also collect the hair sample with thinning shears on the last field monitoring visit. They will start at the base of the scalp and collect a very small amount.

As an added incentive, we are giving those who participate the chance to collect $500 in cash, or a gift certificate in the equivalent amount. You will receive one ticket for wearing the air monitor "fanny pack" and another ticket for participating in the food sample collection. RTI will hold a drawing in three months. At that time, they will draw one of the eligible ticket numbers to see who will collect the $500.00.

To make sure you understand all the study requirements, could you now please read our participant consent form and sign it?

Signing the participant consent form indicates that you understand the purpose of the study, what you are being asked to do, and that you are voluntarily consenting to participate.

At any time that you don't want to participate, you are free to withdraw from any part of the study. Do you have any questions?

[HAND RESPONDENT A COPY OF THE PARTICIPANT CONSENT FORM]

The next chapter of this manual will give you general tips on obtaining participation. Some specific tips for obtaining participation in NHEXAS are below.

Know the field monitoring techniques thoroughly. Be prepared to answer any and all questions the respondent has.

Keep the technology as simple as possible. Use actual terms only if you feel the respondent would understand them.

Show the respondent what the equipment looks like. We will provide you with pictures of the monitors and equipment set-ups. As you describe the field monitoring process, show the respondent these pictures, so that they can visualize what we are asking of them.

Stress the fact that this is a level of measuring total exposure that has never been done before. Individual personal monitoring (i.e., air or water) has been performed in the past but this will be the first study to measure a person's total exposure. This study measures multiple direct exposures to the respondent and his/her family, and it is the first such study of its kind. The respondent will be helping to develop a methodology that will define potential exposure hazards more clearly.

Incentives. Make sure the respondent understands that they will be compensated for their participation in the study, and the more activities they participate in, the more compensation they will receive.

RTI will conduct a longitudinal followup to NHEXAS Phase I with a subset of the current NHEXAS respondents. You will need to advise each respondent that participates in field monitoring that they may be selected for participation in this longitudinal followup, and, if they are, the field monitoring team will explain what is involved in the longitudinal followup in detail and ask for their participation. Generally, the followup will involve a collection of a portion of the samples collected in the current NHEXAS. All materials will be given to the respondent, and they will be able to collect these samples themselves and mail them for analysis. They will receive $15.00 for completing the first week and $20.00 for completing the second week.

4.5 Field Monitoring Scheduling

Once the respondent agrees to participate in field monitoring, you will need to set up the three household visits for the field monitoring team. RTI will provide you with the dates that the field monitoring team will be in the area, and the times they have selected for sample collection.

Schedule all visits for the field monitoring team for each of the nine participating households on the PSU, and enter them on the Field Monitoring Team Appointment Sheet (Exhibit 4-5). This sheet will be given to the Field Monitoring Team when they arrive.

Remember that you will be scheduling field monitoring appointments for the entire PSU. Allow at least two hours between appointments to include enough time for the field monitoring team to complete a household visit and travel to the next appointment. Try to avoid conflicts and minimize the field monitoring's travel time by scheduling households close to one another for the same day. To ensure the validity of the sample collection analysis, respondents MUST be scheduled at the same time intervals on Days 1, 4, and 7; Days 2, 5, and 8; or Days 3, 6, and 9. Scheduling respondents in this manner provides the field monitoring team with precise, standardized sample collections across all study respondents. Exhibit 4-6 shows an example of a correctly completed Field Monitoring Team Appointment Sheet.

Once you have enrolled the respondent and scheduled the three field monitoring team visits, complete the Participant Enrollment Form (Exhibit 4-7) for that respondent following the guidelines below:

Step 1

Write the segment ID and HU line ID in the space beside SURVEY ID.

Step 2

In Section A, place a check by the samples or group of samples that the respondent has agreed to provide.

Step 3

Check the Longitudinal Followup Selection Form (see Exhibit 4-8). You will have only one of these forms for the PSU you are working. Write the Segment ID and HU Line Number of the enrolled respondent in the next available spaces of the two left-hand columns of the table. The numbers to the right of the IDs indicate the first and second followup month intervals for that respondent. If these intervals are "O," the respondent has not been selected for the longitudinal followup. Complete the following information under the LONGITUDINAL section in A:

a) Participant Selected—If there are any numbers 1-9 for the First and Second Followup Month Intervals on the Longitudinal Followup Selection Form, circle "Yes" and continue with line b. If there are "O's", circle "No" and skip to the back of the form.

b) Interval 1 and Interval 2—For respondents selected for the Longitudinal Followup, enter the number under First Followup Month beside Interval 1 and enter the number under Second Followup Month beside Interval 2 on the Participant Enrollment Form.

c) Check the Outdoor VOCs column on the Longitudinal Followup Selection Form. If there is a "Y," circle the word "VOCs" under <u>Longitudinal</u> Section C of the Participant Enrollment Form.

On the second page of the Participant Enrollment Form, enter the respondent's name, name of the respondent's parent or guardian (if the respondent is a minor), address, telephone number, and scheduled appointment times for field monitoring.

Write down explicit instructions on how to get to the respondent's home.

Finally, complete an Appointment Card (Exhibit 4-9) and leave it with the respondent.

The field monitoring team will need all of this information ahead of time to set up their computer system, so you must convey this information to your supervisor, preferably within one day, and not more than two days of enrolling the respondent.

4.6 Training on the Time Diary and Activity Questionnaire

Your last step before leaving the house is to train the respondent on the Time Diary and Activity Questionnaire they will complete over the field monitoring period (six days). The Time Diary and Activity Questionnaire is composed of two sections. In the first section (the time diary), the respondent will keep a record of where they spent their time during each part of the day. The second section (Daily Activity Information) contains questions about possible exposure activities the respondent may have encountered during the day. To ensure we collect the most accurate data regarding possible exposure locations, you will show the respondent how to complete this form.

In the Time Diary, each section represents one day. In the first column, the respondent should record the day of the week and date that they start. The next column, Location, lists seven possible place where the respondent might be at any time during the day. Do not write in this column. The next four columns list the times of day, beginning with morning. These columns translate into the following times:

Morning 5-11	=	5:00 a.m. to 11:00 a.m.
Afternoon 12-5	=	12:00 p.m. to 5:00 p.m.
Evening 6-11	=	6:00 p.m. to 11:00 p.m.
Early Morning 12-4	=	12:00 a.m. to 4:00 a.m.

The respondent is to put an X through the number which represents each hour during which they spent any time at the seven possible locations. They will then use the X's to estimate the number of hours and minutes spent at each of the seven locations in one day. This information is entered in the last column, the Amount of Time, and must equal 24 hours.

The respondent will follow these procedures to record Time and Activity for each of the seven days of the field monitoring period, which covers six 24-hour periods.

To train the respondent, you will take them through the Time Diary and Activity Training Guide. This guide has been developed to give the respondent practice in specifically completing the Time Diary part of the form while you are there to answer any questions they may have and to make sure they fill it out correctly.

Follow these instructions for training:

1. Go through the instructions with the respondent, making sure that they understand the definitions provided for them.

2. Take them through the *Training Guide* table, using the example below:

   > The person filling out this Time Diary is a married female with a 13 year old son. She fills out this part of the Diary for Monday, May 3. She woke up at 6, and left for work at 7:30. She got to work at 8, and was there until lunchtime. At noon, she went to the drug store. It took her 15 minutes to drive there and 15 minutes to drive back to work. She was in the drug store for 20 minutes. She stayed at work until 5 and got home at 5:30. She worked outside in the garden for about an hour, then came back inside, fixed dinner, ate, helped her son with his homework, and watched TV with her husband until she went to bed at 11:30.

   Exhibit 4-10 is an example of a correctly completed Time Diary that corresponds to the script above.

3. Have the respondent complete *Example 1*, using their activities from the previous day. Go over any mistakes they make with them.

4. Show the respondent the corresponding column for Day 1 in the Activity portion of the form.

5. Have them practice again by instructing them to use *Example 2* to record their activities from today.

The respondent should complete the Time Diary and Activity Questionnaire at the end of each day, while it is still fresh in their minds. If they try to recreate information the next day, it will not be as good. Keep going over the time diary with the respondent until you are sure that they have a good understanding of how to fill it out correctly. During the first field monitoring visit, the field monitoring team will inspect the diary to make sure the respondent is completing it correctly, and leave the actual Time Diary and Activity Questionnaire with them.

4.7 Reminder calls to Respondents

Two days prior to the initial field monitoring team visit, call the respondent to remind them of the appointment. If the respondent indicates that they can not keep the appointment, discuss the situation with the leader of the field monitoring team, then schedule a new appointment with the respondent, and call the field monitoring team with the information.

4.8. Recontact with Skipped Housing Units

During the attempts to recruit respondents, a few households will be worked, but no one will be contacted. Due to the limited time available to recruit the respondents, the interviewer has to go on and contact the next lines. After all 9 respondents have been recruited, we want to return to the addresses where no contact was made. Review the record of calls and choose a day and time when no previous contact attempt was made. Return to the residence and attempt to contact an 18 year old or older resident and complete the descriptive questionnaire. Then, go through the respondent selection process and attempt to complete the baseline interview with the selected household member.

At this point, since all the monitoring appointments are filled, you must explain what would have happened. Discuss the monitoring process, but indicate even though, while all the appointments have been filled, that it is necessary for us to have some information about each person who had been selected to participate.

4.9. Disposition of Forms

All Descriptive Questionnaires that result in noninterview codes 10-21 and 72-78 must be sent weekly to your supervisor for review. Send these forms in one large envelope. For all Descriptive Questionnaires that result in code 71 (Baseline, refused field monitoring), clip these together with their completed Baseline Questionnaires and mail them to your supervisor. For Descriptive Questionnaires that result in 70 (Baseline, agreed to field monitoring), you will need to pass along all information for each case to the field monitoring team. Two days prior to the first sampling day, make arrangements to meet with the field monitoring team at their hotel. Arrange all information in one folder per case and take the folders with you to the meeting. Each folder should contain:

Descriptive Questionnaire
Baseline Questionnaire
Consent Form
Assent Form (for minors)
Field Monitoring Appointment Sheet
Incentive Receipt for Baseline Questionnaire
Participant Enrollment Form

Rubber band all folders for one segment together with their segment kits on top. When the field monitoring team is finished collecting samples for a household, they will return all materials (questionnaires, administrative forms, etc.) to RTI.

[STOP AND COMPLETE EXERCISES 7 THROUGH 14 IN THE HOME STUDY WORKBOOK]

1

Exhibit 4-1

TABLE OF PARTICIPANT LINE NUMBERS
FOR PSU # 2

SEGMENT ID NUMBER	HU LINE NUMBER	NUMBER OF ELIGIBLES ROSTERED 1	2	3	4	5	6	7	8	9	10	11	12
		1	0	1	1	5	4	1	8	2	6	11	3
		0	1	2	3	3	1	3	5	4	1	4	5
		0	2	1	2	1	6	4	6	5	3	1	7
		1	1	3	4	2	2	6	4	9	7	11	6
		0	0	3	3	4	3	7	4	7	4	10	1
		1	2	1	4	4	4	6	3	8	6	2	8
		0	2	2	1	5	5	1	7	5	8	10	4
		0	1	1	2	1	3	5	6	7	4	1	3
		0	0	3	4	3	1	4	4	2	10	8	2
		0	2	3	1	2	4	1	8	9	2	3	9
		1	1	1	2	4	5	7	2	1	10	9	2
		0	2	2	4	5	1	3	7	2	5	4	10
		0	1	1	1	2	5	6	3	4	9	2	1
		1	1	2	2	5	2	1	8	3	1	9	4
		1	0	1	4	3	4	5	4	6	10	5	12
		0	0	2	3	1	6	3	2	8	3	8	11
		0	2	2	2	2	1	2	5	5	5	3	5
		1	0	1	3	3	2	4	1	1	6	7	11
		0	1	3	4	1	3	6	3	6	8	4	6
		1	0	2	1	4	6	3	1	9	7	6	10
		1	2	3	2	2	5	2	5	8	1	5	12
		0	1	1	1	1	3	4	2	3	9	8	7
		0	0	3	4	5	5	7	1	6	5	2	12
		0	0	3	3	4	6	2	7	4	3	7	8
		1	2	2	2	3	2	5	6	7	2	6	9

Exhibit 4-2

Samples Collected

A. VOCs

Indoor Air (6 days, passive) Outdoor Air (6 days, passive) Personal Air (6 days, passive) Water Dust Soil	$15.00
Workplace Personal Air (6 days, passive)	

B. Particles

Indoor Air (6 days, active) Outdoor Air (6 days, active) Personal Air (6 days, active) Water	$40.00

C. Food

Food and Beverages (4 days)	$15.00 incentive + $15.00 per day for food compensation)

D. Biologicals

Urine	$5.00
Blood	$20.00
Hair	

GROUP B	1 Lottery ticket for $500 in cash or prize equivalent
GROUP C	1 Lottery ticket for $500 in cash or prize equivalent

Exhibit 4-3

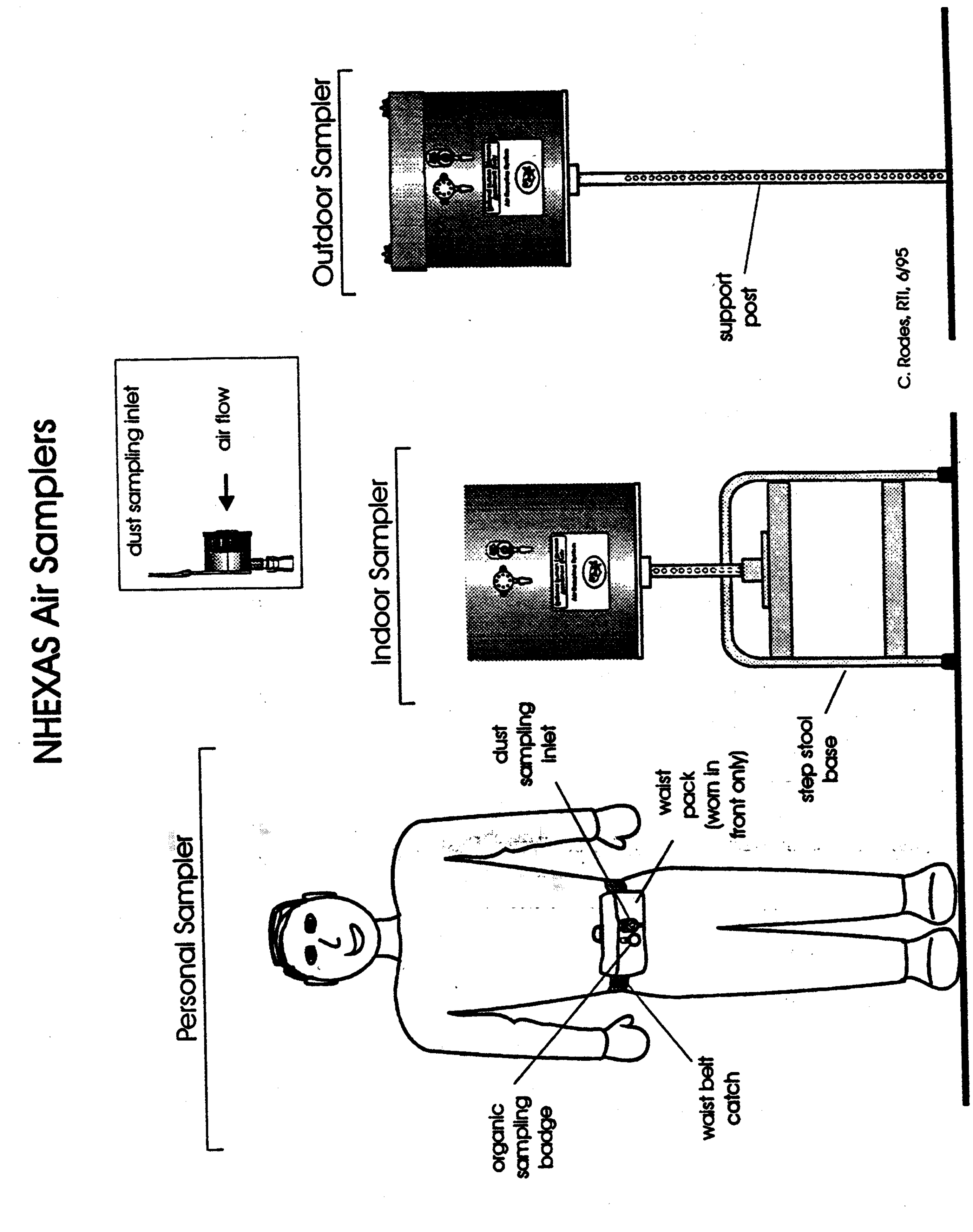
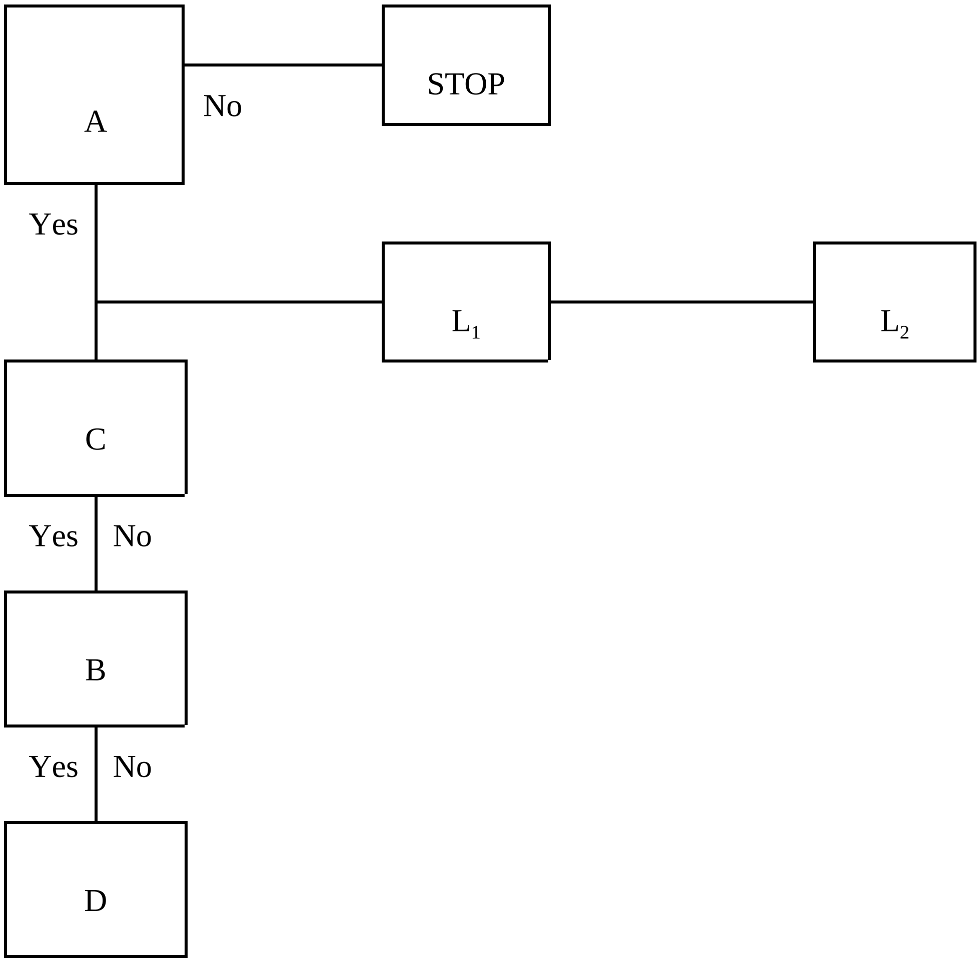

NHEXAS Air Samplers
dust sampling inlet
air flow
Personal Sampler
Indoor Sampler
Outdoor Sampler
dust sampling inlet
waist pack (worn in front only)
step stool base
support post
organic sampling badge
waist belt catch
C. Rodes, RTI, 6/95

Exhibit 4-4

Presentation Process

"V" Process



A = Questionnaire, time/activity diary, VOCs, Water, Dust, Soil

B = Particles

C = Food, food diary, and food diary followup

D = Blood, urine, hair

L_1 = 1st longitudinal followup interval

L_2 = 2nd longitudinal followup interval

Exhibit 4-5

Field Monitoring Team Appointment Sheet

PSU ______________________________

Segment No.	HU ID	First Visit			Second Visit			Third Visit		
		(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)

Exhibit 4-6

Correctly Completed Field Monitoring Appointment Sheet

Field Monitoring Team Appointment Sheet

PSU 093

Segment No.	HU ID	First Visit			Second Visit			Third Visit		
		(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)	(DATE)
		5/3	5/4	5/5	5/6	5/7	5/8	5/9	5/10	5/11
093012	201	3pm			3pm			3pm		
11	123	5pm			5pm			5pm		
093011	504	7pm			7pm			7pm		
11	505		5pm			5pm			5pm	
093012	002		7pm			7pm			7pm	
093010	336		9pm			9pm			9pm	
093009	109			1pm			1pm			1pm
093009	156			3pm			3pm			3pm
093010	304			5pm			5pm			5pm

Exhibit 4-7

Participant Enrollment Form

NHEXAS PARTICIPANT ENROLLMENT FORM PAGE 1

SURVEY ID: ______________________

CHEMISTRY ID (to be added by RTI staff): ________

A) <u>SAMPLES TO BE COLLECTED</u> (check each agreed to by participant)

VOCs

a) Personal air (wears badge for 6 days) Includes indoor/outdoor air, water, dust, soil	____	$15
b) Workplace (wears 2nd badge for 6 days)	____	

METALS

a) Personal air (wears pack/strap for 6 days) Includes indoor/outdoor air, water	____	$40
b) Foods and beverages (duplicate of all foods and beverages, 4 or 3 days)	____ ____	$75 (4 days) $60 (3 days)

BIOLOGICAL

a) Urine (mornings of 2 days)	____	$5
b) Blood (3-4 small tubes at one time)	____	$20
c) Hair (small amount, using thinning shears)	____	

LONGITUDINAL

a) Participant Selected (Yes/No)	____	$15 for first week, $20 for second week

b) Interval 1 ____________
Interval 2 ____________

c) Participant agrees to collect:
1. VOCs in Air (personal, indoor, outdoor) ____
2. Water (standing, tap) ____
3. Dust Plate ____
4. Dust Carpet ____

B) <u>PARTICIPANT INFORMATION</u>

Participant Age (in years): ____

Does participant smoke?	Yes: ____	No: ____
Do any other people in the home smoke?	Yes: ____	No: ____
Is the participant employed full time?	Yes: ____	No: ____
Does the participant speak English?	Yes: ____	No: ____

Structure (check one):
Single Family, detached ____
Multiple Family, participant family has first floor living space ____
Multiple Family, participant family completely on upper floor ____

July 5, 1995

Exhibit 4-7 (Continued)

Survey ID: ______________________ **PAGE 2**

Participant Name: ______________________

Responsible Parent/Guardian Name (If participant is under 18):

____

Address: ______________________

____

____

____

Telephone: ______________________

____

Appointment Times:	Date	Day	Time	AM/PM
First Monitoring Visit	____	____	____	____
Second Monitoring Visit	____	____	____	____
Third Monitoring Visit	____	____	____	____

Specific Directions: (Please print directions with enough detail so that someone unfamiliar with the area could find the house or apartment, even at night. Include as appropriate: landmarks, nearest intersection, mileage, distinguishing features like house color or style, apartment floor and location, missing house or apartment numbers, best parking if apartments, identification problems, neighborhood safety information, presence of dogs, etc.)

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July 5, 1995

Exhibit 4-7 (Continued)

Survey ID: ____________________________ PAGE 2

Participant Name: ____________________________

Responsible Parent/Guardian Name (If participant is under 18):

____

Address: ____________________________

____

____

____

Telephone: ____________________________

____

Appointment Times:	Date	Day	Time	AM/PM
First Monitoring Visit	____	____	____	____
Second Monitoring Visit	____	____	____	____
Third Monitoring Visit	____	____	____	____

Specific Directions: (Please print directions with enough detail so that someone unfamiliar with the area could find the house or apartment, even at night. Include as appropriate: landmarks, nearest intersection, mileage, distinguishing features like house color or style, apartment floor and location, missing house or apartment numbers, best parking if apartments, identification problems, neighborhood safety information, presence of dogs, etc.)

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July 5, 1995

Exhibit 4-8

1

LONGITUDINAL FOLLOW-UP SELECTION FORM
FOR PSU # 2

SEGMENT ID NUMBER	HU LINE NUMBER	FIRST FOLLOW-UP MONTH	SECOND FOLLOW-UP MONTH	OUTDOOR VOC's ? (Y/N)
		5	8	N
		6	7	Y
		0	0	
		6	7	Y
		5	7	N
		0	0	
		0	0	
		6	8	N
		0	0	

Exhibit 4-9

The NHEXAS field monitoring team will be at your home at the following dates and times:

First appointment: ______________________________

Second appointment: ______________________________

Third appointment: ______________________________

In the meantime, if you have any questions, please call me at ________________ or the field monitoring team at 1-800-224-0412. If you are unable to reach me or the monitoring team, please call Harvey Zelon or Kathleen Considine at 1-800-334-8571.

Thank you for your participation.

Exhibit 4-10

Completed Time Diary

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 1 Date of Week Monday	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	13 Hrs 0 Min
	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	8 Hrs 10 Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	0 Hrs 20 Min
DATE 3/4/96	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	1 Hrs 0 Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	0 Hrs 0 Min
	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	0 Hrs 0 Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	1 Hrs 30 Min

Total Daily Time Expenditure must add to 24 Hrs

Example 1

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 2 Date of Week	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
DATE / /	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	Hrs Min

Total Daily Time Expenditure must add to 24 Hrs

Example 2

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 3 Date of Week	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
DATE / /	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	__ Hrs __ Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	Hrs Min

Total Daily Time Expenditure must add to 24 Hrs

5. OBTAINING PARTICIPATION

5.1 Introduction

The confidence you display as a result of your careful preparation will improve your chances of obtaining participation. In addition, there are a number of procedures and tools available to you that should increase your chances of obtaining participation. These items will help to emphasize the importance of the study and your legitimacy as a professional interviewer. Proper use of these materials also will ensure that you provide your respondent with all the information he/she needs to know to grant informed consent (to be discussed further in Section 5.3). This chapter discusses the tools that have been developed to help you gain cooperation from the household.

5.2 Tools to Obtain Participation

5.2.1 Advance Letter

An advance letter will be mailed to the first nine selected households in your area immediately before you begin work.

Exhibit 5-1 contains an example of the advance letter. This letter provides the household with information about the purpose of the study, who is sponsoring and conducting the research, and who they may contact if they have any questions. The advance letters will be printed on RTI letterhead and are signed by the Data Collection Task Leader at RTI. You will also have a supply of advance letters to give to those who did not receive it or for households beyond the first nine.

5.2.2 RTI ID Badge

Each interviewer working on NHEXAS will be issued a photo identification badge (see Exhibit 5-2). <u>You must always wear this badge when working on NHEXAS</u>. This badge will aid greatly in verifying your identity and legitimacy as a professional interviewer working on NHEXAS.

5.2.3 Field Interviewer Letter of Authorization

In addition to the RTI ID Badge, the Field Interviewer Letter of Authorization will be another tool you should use to verify your position as a legitimate interviewer working on NHEXAS. This letter, an example of which is shown in Exhibit 5-3, will introduce you to the household and verify that you are a representative of RTI working on NHEXAS. The Letter of Authorization will provide the household with the names and telephone numbers of contacts at RTI that they may call if they wish to further verify your identity and legitimacy as an interviewer.

5.2.4 Answering Questions

Your introduction will give the household a general idea of what to expect from the study. Many people, however, may have questions or concerns. Use your knowledge of survey research in general as well as your knowledge of NHEXAS in particular to answer questions and/or address concerns. If you do not know the answer to a question, admit it, but offer to find out either then or later, depending on how important it is to securing participation. If you must get an answer immediately, offer to call your supervisor at RTI to resolve the problem.

5.3 Informed Consent

Before we can accept a respondent's consent to complete the study, we must be sure that he/she has been given all the information necessary to make a completely informed and knowledgeable decision. The respondents' Right to Informed Consent is a critical component of any legitimate study. Current legislation related to many federally funded research projects, including NHEXAS, requires that a potential respondent be expressly informed of:

- the purposes of the study
- the length of time they will be involved in the study
- the procedures that will be followed
- any discomforts, risks or benefits that might be associated with participation
- the fact that consent may be withdrawn and participation discontinued at any time (i.e., that participation is voluntary), and
- sources from which additional information about the study can be obtained.

This information must be made available to each potential respondent either verbally or in writing so that the individual can base his/her decision to participate or not to participate on full knowledge of the study and the consequences of involvement.

All of this information is provided in the Consent Forms developed for this study. We have developed three versions of our Consent form because there is no age limit for the study's target population. If the respondent is 18 years or older, they must read and sign the form labelled Participant Consent Form. If the respondent is under 18 years of age, we are required to have a parent or guardian assess the child's ability to understand the procedures, sign the Parental Consent Form; then have the interviewer read the form labelled Minor Assent Form to the minor, and sign the form indicating the minor's assent to participate in the study. The two Consent Forms and one Assent Form are shown in Exhibit 5-4.

5.4 Anonymity and Confidentiality

Anonymity and confidentiality are two words that are often used interchangeably in research. However, these two words have significantly different meanings and implications for research activities.

An "anonymous" respondent would be one whose identity is disclosed to no one, not even the interviewer. Obviously, this situation is seldom possible in a face-to-face interview setting, such as NHEXAS. Nevertheless, the information gathered from a respondent can and must be kept "confidential." This means that the data gathered from or about him/her cannot be associated with him/her as an individual. In fact, the Privacy Act of 1974 mandates that a breach of confidentiality during applicable data collection activities, including NHEXAS, is a misdemeanor under federal law.

You, as a professional interviewer, must maintain the confidentiality of any and all information gathered from or about a respondent, whether through specific questions or through casual observation during any of the household visits.

To ensure that you understand the importance of and are willing to abide by the confidentiality requirements of this study, you will be required to sign a Confidentiality Pledge (see Chapter 1) before beginning work on NHEXAS. Violation of the terms of the agreement will constitute grounds for immediate termination.

5.5 Overcoming Objections

Most individuals are friendly and willing to cooperate but it is to be expected that some individuals will have concerns, objections or fears. What may appear to be a refusal to cooperate may be, in reality, only an expression of that concern or a need for more information about the study, the procedures or the background of the research. The following points will be helpful in reducing or eliminating "refusals" when making contacts:

- Do not invite refusals. An air of apology or defeat can sometimes trigger a refusal.

- A friendly, confident and positive manner, assertive but not aggressive, will usually have positive effects.

- Listen carefully to the respondent's comments and try to determine the basis for his/her objections. Then, target your responses to those objections or concerns.

- A little more detail about the study, the procedures, confidentiality or time involved may answer the "unasked" question. Sometimes the best technique is to simply ask "Is there something about your participation in this study that is bothering you that I can explain to you further?"

- Often, the public is apprehensive about participating in a "survey." In some instances, their cooperation has resulted in their being involved in disguised sales promotions. Use of the words "study," "research," and/or "interview" are sometimes helpful. Assure the respondent that you are not selling anything.

Exhibit 5-5 contains common reasons given by respondents for refusing to participate in a research study. Responses need to address the reasons for refusing. It is important to listen to the respondent's comments and tailor your response to his/her need for information.

Should you not be able to overcome a respondent's or parent's objections, and the person simply will not consent to participate, then accept the refusal as courteously and graciously as possible and thank the person for his/her time. Do not pressure, argue, or otherwise alienate him/her. Your goal should be to leave the door open for re-contact. Immediately after the incident, enter notes describing the situation on the Descriptive Questionnaire's Record of Calls. This will help you to adequately and objectively describe the situation to your supervisor. Do not rely on memory to recount the events to your supervisor; writing notes down will help you in subsequent contacts.

Discuss the situation with your supervisor so that she will know what happened, and together you will decide which, if any, actions to take next in securing cooperation. Whatever the circumstance of the refusal, always remember to be professional, courteous, and friendly. Someone else (your supervisor) may need to follow your lead in converting the respondent.

Do not allow refusals to affect your positive approach to interviewing. Even the best interviewers experience an occasional refusal. It is not necessarily a reflection of your ability as an interviewer. It can be discouraging, but learn to "roll with the punches" and quickly get back into stride.

5.6 Minor Respondents

An important part of the sample for NHEXAS are the respondents under 18 years of age. Obtaining participation with this group will require the consent of both the minor respondent and his/her parent or guardian. The only exception to this rule will be those instances where the minor is emancipated (i.e., simply living on their own). Only under these circumstances may a minor respondent be enrolled in the study <u>without</u> parent permission.

In those instances where parental permission is needed, you must obtain a completed Parental Consent Form. This document provides a summary of the purpose of the study, the importance of the minor's participation, and an assurance of the confidentiality of his/her responses. By signing this form, the parent or guardian acknowledges that the child has the ability to understand what will be asked of him/her. The Parental Consent Form also assures the parent that his/her granting of permission does not imply that the minor has to participate; he/she also will be given the opportunity to decide whether or not he/she wants to participate. Even if the parent allows the child to participate; if the child says no, they will not participate.

If the parent refuses to allow the minor to participate or if the minor refuses to participate, then do not proceed. As with all refusals, be professional and polite in explaining your position and making your exit. Place this information on the Descriptive Questionnaire's Record of Calls and notify your supervisor.

5.7 "Tips" on Obtaining Participation

During the months of July and August, 1990, RTI conducted a survey on nonrespondents to a national field study. Persons who had refused to participate in this study were recontacted in order to learn if, and how, non-respondents differ from those who do choose to participate.

After the study was completed, a debriefing conference was held with those field interviewers who worked on the nonresponse follow-up and techniques that were useful in obtaining participation were discussed. The information gained from these discussions is summarized in the following paragraphs.

To be successful at interviewing, you must develop your own particular style, and then interact with potential respondents in a manner that is comfortable for you. However, when you are developing your style, please keep the following "tips" in mind:

- A positive attitude is crucial when interacting with potential respondents. You need to feel confident about yourself and your knowledge of the study, thus creating a positive atmosphere. If, on the other hand, you approach the door with an air of uncertainty, the potential respondent may:

    - question the validity of the study

    - view the study negatively and minimize its importance

    - be more likely to say "no" when asked to participate.

  If you are not excited and knowledgeable about the study, the potential respondent is not likely to be interested in participating.

- Persistence is the key to decreasing non-response. For not-at-home cases, you must make attempts at different times of the day and on different days of the week. If necessary, talk to a neighbor to find out a time when the potential respondent is most likely to be at home.

  If you are unable to persuade the respondent to participate during one of your visits, say "I'll come back when you are not as busy," or "I'll come back the next time I'm in the neighborhood." These statements leave the door open for recontact, since they imply a respect for the person's reason to not participate at this time.

- It is very important that you stress the confidentiality of the study; i.e., the answers are only reported in aggregate form and individual names are never associated with the data.

- Minors, in particular, may need motivation to participate. One technique that has been successful is to suggest the minor or parent write to the sponsor of the study and request a copy of the results. Then, they can share this information with classmates and teachers, explaining how they were a part of the study.

- Many people today are very busy, and thus do not have a lot of free time. And, many do not wish to spend what free time they do have participating in lengthy research studies. Therefore, ensure the respondent that the three household visits will only take an hour to an hour and a half each, thus requiring only four to five hours of their time over a one-week period.

- Finally, you must provide thorough documentation of all attempted contacts on the Descriptive Questionnaire's Record of Calls. Record the details of what happened during each contact. It may provide you with useful information should you have to initiate further contacts, such as refusal conversion attempts. Review your documentation prior to the next contact and plan and organize your approach. For example, if a potential respondent said he/she had a sick child and did not have time to participate, begin your recontact with "I hope your child is feeling better."

5.8 Local Social Climate

Occasionally, refusals will occur no matter how effective and adaptive you are. They can be due to factors outside your control and may or may not be situations which you, or your supervisor, can counter. For instance, if a neighborhood is experiencing a series of break-ins or personal assaults, residents will be exceptionally reluctant to allow entrance to their home. This type of information is readily revealed to you once at work in the neighborhood. If such circumstances are reported, it's a good idea for you or your supervisor to contact local police to inform them of your presence in the area. It is critical that you gain some degree of trust on the part of residents if you are to be successful in gaining cooperation.

5.9 Controlled-Access Buildings

Upon your first attempt to contact the household, you might find that he/she lives in a controlled access building. Some examples of the controlled access situations you might encounter include secured apartment or condominium complexes and gated (high-income) communities.

Each of these controlled access situations can present a unique set of problems when the interviewer attempts to make contact with the respondent. It has been found, however, that through good observation and planning, along with contacting the proper personnel and providing a thorough explanation of the study, very few of these locations present an insurmountable problem. Here are some points which may help in gaining access to these structures or areas:

- Always display prominently your RTI ID badge and carry your Letter of Authorization.
- Carry extra copies of the advance letter.
- Look for signs or plaques mentioning the name of the manager or owner of the building.
- Tell the guard or doorman that you are <u>not</u> selling anything, that you are not going to every door, that you have specific apartments to go to, that you have sent a letter (show copy) and that the individual residences are expecting your call.
- If it becomes necessary to speak to a manager or owner, emphasize the importance of the study and the strictest adherence to rules regarding the invasion of privacy and confidentiality. Tell him/her that participation is strictly voluntary and that the respondent should be given the opportunity of making his/her own decision about participating in the study.

If necessary, ask your supervisor to call the management of the location explaining your visit and asking for their cooperation.

As stated previously, each situation is unique; you should explore every avenue possible, remaining alert to methods or approaches which may vary considerably from location to location. In most cases, you should gather all relevant facts possible, then call your supervisor to discuss a plan of action.

5.10 Use of Escorts

The neighborhoods included in our sample will represent all socioeconomic levels. In those areas where you feel there is an increased risk of personal danger, the use of escorts may be warranted. However, you must get verbal approval from your supervisor prior to using an escort. Escorts are reimbursed on an hourly basis by the interviewer (see Chapter 10 for details) and can be friends/family of the interviewer, or local residents of a given neighborhood. The use of all escorts must be cleared through your supervisor, since this usage could cause response rate problems, if not properly arranged. We do not want to alienate respondents but we also do not want interviewers placed in dangerous situations. You will need to be very aware of the social climate in your assigned areas since it can have such direct impact on your success.

Escorts should travel with you and act as a second presence in the area but, in all cases, should not accompany you to the door. We want our approach to the household to be as non-threatening as possible. Escorts must remain in the car or in a public area of the building while you work.

5.11 Handling Language Barriers

While we are not targeting minority populations, it is very likely that some of our respondents will speak a language other than English, or at least that English will not be their primary language. We will not be conducting any interviews in any language other than English. Thus, if you encounter a respondent who can not complete the interview in English, code the case as a "Language Barrier' and notify your supervisor, who will provide you with instructions on how to proceed.

**[STOP AND COMPLETE EXERCISES 15 AND 16
IN THE HOME STUDY WORKBOOK]**

Exhibit 5-1

Example of an Advance Letter

Date: ____________________

Dear Resident:

Research Triangle Institute (RTI) and the Environmental and Occupational Health Sciences Institute (EOHSI) are conducting a very important study called the National Human Exposure Assessment Study (NHEXAS). We are conducting this study in cooperation with the United States Environmental Protection Agency (EPA) and the [NAME OF STATE HEALTH AND ENVIRONMENT DEPARTMENTS] and your local Health Department in [COUNTY/CITY]. The purpose of the study is to determine people's exposure to chemicals as they perform their usual activities at home, work, or school.

Your address is one of just a <u>few</u> selected at **random** in your area. Your participation is very important to us. Your household represents many of your neighbors, and since it was selected in a random process, we cannot replace your household if you choose not to participate.

Our interviewer will be working in your community during the next three weeks. [HE/SHE] will knock on your door and introduce (HIMSELF/HERSELF] and the study. Ask to see [HIS/HER] identification card. [HE/SHE] will ask a few questions and will determine if a member of your household can participate in the study. If a member of your household is selected, the interviewer will explain the study in detail, answer any questions, and request the selected person's participation in the study. While cooperation is voluntary, we hope your family will agree to participate, if selected.

If you have any questions, or would like more information before the interviewer contacts you, please feel free to call me, toll-free, at 1-800-334-8571. Also, if you wish to verify the legitimacy of this study, please call [NAME AND TELEPHONE NUMBER OF LOCAL CONTACT].

Sincerely,

Harvey S. Zelon
NHEXAS Co-Investigator

Exhibit 5-2

RTI ID Badge

RESEARCH TRIANGLE INSTITUTE
Research Triangle Park, NC
(919) 541-6000

INTERVIEWER IDENTIFICATION

EXAMPLE

No.	**Name**
Picture	**Signature**
	Date Issued / **Date Expires**
	Certified By

Exhibit 5-3

Authorization Letter

To Whom it May Concern:

This letter serves to authorize [NAME] to work as a field interviewer on a major research project, the National Human Exposure Assessment Study (NHEXAS), sponsored by the United States Environmental Protection Agency. This study is designed to provide information on what kinds of products and contaminants people encounter on a daily basis, and in what ways they encounter those pollutants.

The Field Interviewers working on this study have been hired and trained specifically for this project by Research Triangle Institute (RTI), a not-for-profit survey organization located in Research Triangle Park, North Carolina. Research Triangle Institute is under contract to the U.S. EPA to perform all data collection activities associated with the study.

If you would like further verification that [NAME] is a legitimate interviewer working for RTI on this study, please contact Harvey Zelon or Kathleen Considine at RTI (1-800-334-8571, 8:30 AM to 5:00 PM, EST).

Thank you for your cooperation,

Sincerely yours,

Harvey S. Zelon
Data Collection Task Leader

3040 Cornwallis Road • Post Office Box 12194 • Research Triangle Park, North Carolina 27709-2194 USA

Exhibit 5-4

Participant Consent Form

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

PARTICIPANT CONSENT FORM

The Research Triangle Institute (RTI), in cooperation with the United States Environmental Protection Agency (EPA) and the Environmental and Occupational Health Sciences Institute (EOHSI) is conducting the National Human Exposure Assessment Survey (NHEXAS). The purpose of NHEXAS is to study the means of exposure of the population to various environmental pollutants. The study will examine the various paths by which the population is exposed, including air, water, dirt, dust, and food. This study will increase the understanding of how exposure occurs and will impact on the way pollution regulations are developed.

You are being asked to participate in this study by completing some or all of the following activities: completing various questionnaires which describe your health, your occupation, your diet, and the various activities you do each day; collecting indoor and outdoor air samples using passive monitors; collecting tap water samples; providing urine, hair, and blood samples; collecting indoor and outdoor air samples using active monitors; collecting dust from a window sill and another primary living area; collecting other dust samples using collection plates and floor mats; collecting soil samples at the entrance to your house and in the yard; and collecting a four-day composite sample of the food and beverages you consume.

Your participation will include four visits to your home. During this first visit, the interviewer will explain the study, have you sign this form, and will complete the first questionnaires. You will receive a $5.00 incentive for completing the initial questionnaire. The interviewer will also set up times and dates for three visits by the field monitoring team. These visits will occur during a seven day period, and will last about one and one-half hours each. You may choose to participate only in the core set of samples which includes wearing the passive air samplers, providing water, dust, and soil samples, and providing optional urine, blood, and hair samples. You will receive a $15.00 incentive for providing this core set of samples. You will receive an extra $20.00 for the blood sample and an extra $5.00 for the urine sample. You may also agree to participate in the active air sampling. This includes wearing a two-pound monitor which you may feel vibrate, and having larger monitors placed in your living room and outside your home. You will receive an additional $40.00 for participating in this part of the study. You may also agree to participate in the dietary measurement part of the study, by collecting samples of the food you eat and the beverages you drink, and by keeping a diary of your food and beverage consumption. You will receive an additional $15.00 for this part of the study, plus $15.00 a day for your food expenses. The field monitoring team may have to make one added short visit to your home to collect food samples. If you agree to participate in the active air sampling or food collection components of the study, you will receive tickets for a raffle which we will conduct once a quarter for a cash or merchandize price worth $500.00. Some of you may also be asked to collect some additional samples at a later date.

You may refuse to answer any of the questions on the data collection instruments, may refuse to provide any of the samples requested, and may end your participation at any time, without loss of any benefits, except the added incentives. None of the monitoring equipment contains dangerous chemicals, or involves any process which would endanger you, any members of your household, or your home. The risks associated with providing the blood sample include minor bruising or some soreness in your arm; these risks are the same as if you gave a blood sample at your doctor's office or at a hospital.

Data from the questionnaires you answer and the results of the environmental and biological testing will not be released with your name or other identifying information associated with it. We will answer any questions you have and will provide you with the results of the testing completed.

Your signature below indicates that you understand all of the information given to you, all of your questions have been answered, and that you agree to participate in this survey. If you have any questions about your participation in this study, please call Mr. Harvey Zelon, at 1-800-334-8571, Ext. 5888. If you have any questions about your rights as research subject, please call Dr. Wendy Visscher, at 1-800-334-8571, Ext. 6028.

Participant's Name:______________________________
(Printed)

Participant's Signature:__________________________

Participant ID#:________________ Date:________________

Interviewer's Signature as Witness:__________________________

Exhibit 5-4 (Continued

Parental Consent Form

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

PARENTAL CONSENT FORM

The Research Triangle Institute (RTI), in cooperation with the United States Environmental Protection Agency (EPA) and the Environmental and Occupational Health Sciences Institute (EOHSI) is conducting the National Human Exposure Assessment Survey (NHEXAS). The purpose of NHEXAS is to study the means of exposure of the population to various environmental pollutants. The study will examine the various paths by which the population is exposed, including air, water, dirt, dust, and food. This study will increase the understanding of how exposure occurs and will impact on the way pollution regulations are developed.

Your child is being asked to participate in this study by completing some or all of the following activities: completing various questionnaires which describe his health, his occupation or schooling, his diet, and the various activities he does each day; collecting indoor and outdoor air samples using passive monitors; collecting tap water samples; providing urine, hair, and blood samples; collecting indoor and outdoor air samples using active monitors; collecting dust from a window sill and another primary living area; collecting other dust samples using collection plates and floor mats; collecting soil samples at the entrance to your house and in the yard; and collecting a four-day composite sample of the food and beverages he consumes.

Your child's participation will include four visits to your home. During this first visit, the interviewer will explain the study and have you sign this form, will explain the study to your child and obtain his assent to participate, and will complete the first questionnaires. Your child will receive a \$5.00 incentive for completing the initial questionnaire. The interviewer will also set up times and dates for three visits by the field monitoring team. These visits will occur during a seven day period, and will last about one and one-half hours each. Your child may choose to participate only in the core set of samples which includes wearing the passive air samplers, providing water, dust, and soil samples, and providing optional urine, blood, and hair samples. He will receive a \$15.00 incentive for providing this core set of samples. He will receive an extra \$20.00 for the blood sample and an extra \$5.00 for the urine samples. He may also agree to participate in the active air sampling. This includes wearing a two-pound monitor which he may feel vibrate, and having larger monitors placed in the living room and outside the home. He will receive an additional \$40.00 for participating in this part of the study. He may also agree to participate in the dietary measurement part of the study, by collecting samples of the food he eats and the beverages he drinks, and by keeping a diary of his food and beverage consumption. He will receive an additional \$15.00 incentive for this part of the study, plus \$15.00 a day for his food expenses. The field monitoring team may have to make one added short visit to the home to collect food samples. If your child agrees to participate in the active air sampling or food collection components of the study, he will receive tickets for a raffle which we will conduct once a quarter for a cash or merchandize price worth \$500.00. He may also be asked to collect some additional samples at a later time.

Your child may refuse to answer any of the questions on the data collection instruments, may refuse to provide any of the samples requested, and may end his participation at any time, without loss of any benefits, except the added incentives. None of the monitoring equipment contains dangerous chemicals, or involves any process which would endanger him, any members of your household, or your home. The risks associated with providing the blood sample include minor bruising or some soreness in his arm; these risks are the same as if he gave a blood sample at his doctor's office or at a hospital.

Data from the questionnaires he answers and the results of the environmental and biological testing will not be released with his name or other identifying information associated with it. We will answer any questions your child has and will provide him with the results of the testing completed.

Your signature below indicates that you understand all of the information I have given to you, all of your questions have been answered, and that you agree to allow your child to participate in this study, if he wishes to do so. In addition, you believe that your child is capable of understanding what is involved in participation in this study, and can provide informed assent. If you have any questions about your child's participation in this study, please call Mr. Harvey Zelon, at 1-800-334-8571, Ext. 5888. If you have any questions about your child's rights as a research subject, please call Dr. Wendy Visscher, at 1-800-334-8571, Ext. 6028.

Participant's Name:______________________________
(Printed)

Parent or Guardian's Signature:__________________________

Participant ID#:________________ Date:________________

Interviewer's Signature as Witness:______________________________

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

MINOR ASSENT FORM

The Research Triangle Institute (RTI), in cooperation with the United States Environmental Protection Agency (EPA) and the Environmental and Occupational Health Sciences Institute (EOHSI) is conducting the National Human Exposure Assessment Survey (NHEXAS). The purpose of NHEXAS is to study the means of exposure of the population to various environmental pollutants. The study will examine the various paths by which the population is exposed, including air, water, dirt, dust, and food. This study will increase the understanding of how exposure occurs and will impact on the way pollution regulations are developed.

You are being asked to participate in this study by completing some or all of the following activities: completing various questionnaires which describe your health, your occupation, your diet, and the various activities you do each day; collecting indoor and outdoor air samples using passive monitors; collecting tap water samples; providing urine, hair, and blood samples; collecting indoor and outdoor air samples using active monitors; collecting dust from a window sill and another primary living area; collecting other dust samples using collection plates and floor mats; collecting soil samples at the entrance to your house and in the yard; and collecting a four-day composite sample of the food and beverages you consume.

Your participation will include four visits to your home. During this first visit, the interviewer will explain the study, have you read this form, and will complete the first questionnaires. You will receive a $5.00 incentive for completing the initial questionnaire. The interviewer will also set up times and dates for three visits by the field monitoring team. These visits will occur during a seven day period, and will last about one and one-half hours each. You may choose to participate only in the core set of samples which includes wearing the passive air samplers, providing water, dust, and soil samples, and providing optional urine, blood, and hair samples. You will receive a $15.00 incentive for providing this core set of samples. You will receive an extra $20.00 for the blood sample and an extra $5.00 for the urine sample. You may also agree to participate in the active air sampling. This includes wearing a two-pound monitor which you may feel vibrate, and having larger monitors placed in your living room and outside your home. You will receive an additional $40.00 for participating in this part of the study. You may also agree to participate in the dietary measurement part of the study, by collecting samples of the food you eat and the beverages you drink, and by keeping a diary of your food and beverage consumption. You will receive an additional $15.00 for this part of the study, plus $15.00 a day for your food expenses. The field monitoring team may have to make one added short visit to your home to collect food samples. If you agree to participate in the active air sampling or food components of the study, you will receive tickets for a raffle which we will conduct once a quarter for a cash or merchandize price worth $500.00. You may also be asked to provide some additional samples at a later date.

You may refuse to answer any of the questions on the data collection instruments, may refuse to provide any of the samples requested, and may end your participation at any time, without loss of any benefits, except the added incentives. None of the monitoring equipment contains dangerous chemicals, or involves any process which would endanger you, any members of your household, or your home. The risks associated with providing the blood sample include minor bruising or some soreness in your arm; these risks are the same as if you gave a blood sample at your doctor's office or at a hospital.

Data from the questionnaires you answer and the results of the environmental and biological testing will not be released with your name or other identifying information associated with it. We will answer any questions you have and will provide you with the results of the testing completed.

Your parent or guardian has agreed that you can participate in this study, if you want to. My signature below indicates that I have explained the study to you, that you understand all of the information given to you, all of your questions have been answered, and that you agree to participate in this study. If you have any questions about your participation in this study, please call Mr. Harvey Zelon, at 1-800-334-8571, Ext. 5888. If you have any questions about your rights as research subject, please call Dr. Wendy Visscher, at 1-800-334-8571, Ext. 6028.

Participant's Name:______________________________
(Printed)

Participant ID#:________________ Date:________________

Interviewer's Signature: ______________________________

Exhibit 5-5

Countering Refusals

Reason for Refusal	Response
"No time - ever" "Too busy"	At a minimum, attempt to conduct screening to see if anyone in the residence qualifies; the person at the door with "no time" may not even be a selected respondent. Explain that the screening takes just a couple of minutes. If an individual is selected, arrange for a callback time; leave the appropriate consent form which may nurture an interest in participation.
"Waste of time and taxpayers' money"	Stress the importance of research in the formulation of public policies and the evaluation of existing policies. The government needs to learn the impact of its efforts and does so by conducting research studies. In that way, they can allocate funds more effectively. Explain the importance of participation by every selected respondent since each represents other Americans like themselves.
Hostile to/lack of interest in subject matter	Environmental safety is a current topic of primary importance to our society. Stress the government's need for information in order to learn what has to be done to address any problem. Appeal to the respondent's social conscience and intelligence in every way possible.
Lack of trust/intrusion of privacy, confidentiality	Assure respondent of confidentiality by explaining the design of the study and the manner of administration. Stress that our interest is only in the aggregate of all responses in the 5-State area -- not individual answers. No individual will be connected to any of the responses.

6. GENERAL INTERVIEWING TECHNIQUES

6.1 Introduction

With any scientific study, there are many keys to the success of the research endeavor. This is very true for NHEXAS. As a field interviewer, you are directly responsible for two of the most important aspects of the study -- enrolling respondents in the study, and ensuring that the questionnaires are administered properly, according to project-specific as well as generally-accepted survey procedures. The focus of most other sections of this manual is on the details of these two activities. This chapter, however, will present the standard procedures for properly conducting a scientific survey as required by NHEXAS.

6.2 You as a Professional Interviewer

As an interviewer for NHEXAS, you must always keep in mind that you are a professional doing a very important job. As a professional, you are expected to possess a great deal of knowledge about the study you are helping to conduct -- its purpose, the type of samples collected, the questionnaires, etc. You must be knowledgeable about what you and the field monitoring team are doing and why it is being done, and be prepared to answer most any questions a respondent or parent of a respondent might have for you.

Also, as a professional interviewer, you must always maintain the highest ethical standards, collecting data with complete objectivity and treating with the utmost confidence and respect all information gathered or observed during the course of any household visits. While this is important in any study, it is especially critical for NHEXAS. Many of our respondents will feel that what we are asking of them is very invasive. You must convey to every respondent that you and the field monitoring team are professionals, and that you are completing the study with him/her in a completely unbiased and confidential manner. As you recall, part of your employment agreement involved your signing of the "Objectivity Pledge" which indicates your understanding of the fact that you are to collect data for this study in a completely objective manner, without projecting any personal biases, opinions or prejudices.

In addition to your behavior and mannerisms, your appearance plays an important part in obtaining the cooperation, confidence and trust of your respondent. When conducting fieldwork, wear clothes that are neat and attractive but inconspicuous. This means simple, practical clothes that are appropriate for the season of the year and the area in which you are working. Your dress should be "neutral," and should always include your RTI ID badge.

6.3 Standardization of Questionnaire Administration

Standardization of interview administration is crucial to a large field study such as NHEXAS. This means that, to every extent possible, every interviewer is following data collection procedures in the same way. This helps to eliminate variability and interviewer bias, two factors that can seriously undermine the validity, or "believability," of the data gathered from a survey. The manner in which you as the interviewer ask the questions on the Descriptive and Baseline Questionnaires can vary, and it is this variability that must be minimized.

Following the guidelines listed below will help ensure that you administer the NHEXAS questionnaires in an unbiased, standardized manner.

6.3.1 Asking the Questions

a. Ask the questions using the exact words shown on the questionnaire.
This may seem obvious, but it is key to ensuring comparability of the data gathered from the survey. If you change the wording in a question, even slightly, the respondent's answer may change accordingly. Consider these two questions:

- On average, how many hours of TV do you watch per week?
- How many hours a week do you watch TV?

The first question might elicit the answer "10 to 12," while the second might be answered as "It depends on what's on; anywhere from 3 to 25 per week." The seemingly subtle change in the phrasing of the question resulted in very different answers. So, again, read every question exactly as it appears.

b. Ask the questions in the exact order in which they appear in each questionnaire.

The questions are ordered as they are for very specific reasons. The meaning of a question may change or be unclear if it is asked out of sequence, and the resulting answer from your respondent may cause you to miss some questions entirely if you do not follow the prescribed order.

c. Ask every question specified in the questionnaire.

Never presume that the answer to an upcoming question has already been provided by a previous answer. The answer received in the context of one question may not be the same answer that will be received when the specific question is asked. The only questions in the questionnaire that should not be asked are (1) those that the questionnaire instructs you to skip or (2) those with instructions to ask only if the answer is unknown.

d. Read the complete question.

The respondent may interrupt you and answer before having heard the complete question. When this happens, read the question again, making sure the respondent hears it through to the end. Do not assume a premature response applies to the question as written.

e. Refer to the Q x Q Specifications in the FI Manual as necessary.

Detailed clarifications, explanations, and definitions for some questions are provided in the Questionnaire Specifications portion of this Manual (Appendix B). Refer to these specifications as necessary.

f. Repeat questions that are misinterpreted or misunderstood by the respondent.

The respondent might directly tell you that he/she did not understand the question. Or, he/she might look confused as he/she tries to answer the question. She also might give an answer that seems illogical or irrelevant to the question that was asked. In any of these circumstances, you should simply repeat the question exactly as it is written. If the respondent asks you a specific question about what a question means (such as "What do you mean by relationship?"), you should not offer any explanations beyond what is provided in the Q x Q specifications. If the Q x Qs do not provide an answer, simply say "Whatever a 'relationship' means to you, what you consider a 'relationship' to be.'"

g. Read the questions slowly.

As you become more and more familiar with the NHEXAS questionnaire, you may be tempted to read through the questions more quickly, perhaps in an effort to reduce the burden for your respondent in terms of the time spent during the household visit. However, you must remember that this is the first time he/she has heard these questions, and therefore you must read slowly enough to allow him/her to understand everything you are asking. A pace of about 1 or 2 words per second is considered to be desirable.

h. Do not suggest answers to the respondent.

As you progress through the NHEXAS questionnaires, you will come across questions that you might think you know the answers to, based upon prior information you have heard. This can lead to a tendency to suggest to or "verify" answers with the respondent. For example, if you are asking about the age of other household members, and the respondent is "40," you should never say "And your husband also is 40?" Instead, read the question as written, e.g., "How old is your husband...." Your assumption that he is the same age as your respondent may suggest to her that any other answer is somehow unacceptable, and she may agree even though he in fact is only 30 years old.

i. Use introductory or transitional statements as they are displayed in the questionnaires.

Since the NHEXAS questionnaires cover a wide range of topics, it sometimes will be necessary to focus the respondent's attention on a new topic as it occurs in the sequence of questions. Introductory or transitional statements are provided to do this, and they must be read exactly as they appear. These statements often contain instructional material for the respondent -- time periods, circumstances to be considered, etc.

6.3.2 Probing

By following the procedures described in the preceding section, you will improve and standardize the manner in which you ask the questions on the NHEXAS questionnaires. The next section discusses "probing," a technique used to help ensure that the answers given by your respondent are as accurate and complete as possible.

Probes serve two purposes: they encourage a respondent to express his/her responses completely, and they help the respondent focus on the specific requirements of the question. In order to know when to use a probe, you as the interviewer must be thoroughly familiar with the questionnaire and know the objectives of each question; that is, you must know what is being measured and what constitutes an acceptable response. Otherwise, you will have difficulty judging the adequacy of a response.

All probes must stimulate thought and response without suggesting possible answers. Some examples of proper probing techniques follow.

a. <u>Neutral Questions or Statements</u>

These probes encourage a respondent to further explain or elaborate upon a response. These must be stated in a neutral or non-challenging tone. Some examples of neutral probes are:

- How do you mean?
- What do you mean?
- Tell me more about that.
- Why do you feel that way?
- Which would you say is closest to how you feel?

b. The Silent Probe

A timely pause is the easiest and often the most useful type of probe. This lets your respondent know that you are expecting or waiting for additional information.

c. Clarification

Clarification probes are to be used when you judge the respondent's answer to be unclear, inconsistent, ambiguous, or contradictory. You must take care, however, to not appear to challenge the respondent; instead, tactfully express concern over not completely understanding the nature of the response. Some examples are:

- "I'm not quite sure I understand what you mean by that. Could you tell me a little more?"

- "I'm sorry, but a few minutes ago I thought you said [CONTRADICTORY INFORMATION]. Could you clarify this for me?"

d. Encouragement

This technique involves your conveying to the respondent that you understand what he/she has said, and you would like to hear more. This would be the use of phrases like "I see...," "That's interesting...," "Uh-huh...," etc. A nod of the head and/or an expectant expression are other means of encouragement.

e. Repetition

Repetition could be either repeating the question, or repeating the response. The former is useful when it appears that the respondent may have misunderstood the question, or deviates from the topic at hand. The latter technique of repeating the response may produce additional comments or explanation from the respondent, especially if you say it in the form of a question. For example, if you ask the question "How many times did you feel this way?," and your respondent says "A lot," you could look at him/her and say "A lot?" This should result in him/her providing you with additional details or information, such as "Well, I'd say at least once every week."

f. "Don't Know" Responses

When the respondent says "I don't know," it can mean two things -- either he/she temporarily is not sure of an answer and needs more time to think, or he/she actually does not know how to answer the question. You must be prepared to understand the difference between the two.

A respondent often will say "I don't know" when asked to offer an opinion or attitude. He/She may find it difficult to put his/her feelings into words. If you suspect this is the case, you should put him/her at ease by saying "There are no right or wrong answers; just tell me how you feel about this."

If the respondent simply appears to need more time to think about an answer, then wait silently and expectantly until he/she gets her thoughts together.

When a respondent is uncomfortable answering a question, he/she may respond "I don't know" in an effort to avoid the question. If this appears to be the case, make every effort to put your respondent at ease, reassuring him/her that his/her answers are confidential and are very important to the study.

In the end, the respondent may insist that he/she does not know how to answer a particular question. Once you have properly probed for an answer, you should accept the response in the interest of not alienating the respondent, even if you believe he/she may be avoiding the question. And remember, there may be times when he/she actually does not know the answer to one or more specific questions.

6.4 Importance of Interviewer Style

An interviewer's appearance and manner of delivery establish an initial impression which can either alienate the respondent or encourage cooperation. You should project a professional manner that can be modified according to circumstance. The basic elements of a professional approach include:

- showing proper identification and supporting documentation
- demonstrating a thorough knowledge of the purpose of the project and its materials
- making a courteous straightforward presentation.

While maintaining these criteria, an effort should be made to "fit in" to the neighborhood -- that is, to dress and act similarly to the majority of individuals in the area. The goal is to avoid respondent suspicion.

Rapport is probably the most important tool of the interviewer, and is achieved through sensitivity to the respondent and his/her living conditions. This sensitivity, although difficult to learn, can be developed gradually. During regular phone reports to your supervisor, discuss your approach to non-completed cases and attempt to define the respondent's reaction. Part of your job is to be aware of how you are being received. The eventual aim is to nurture an ability on your part to predict and even modify the respondent's reaction. Once you are able to do this, you will be more successful in avoiding refusals. You will be better equipped to counter an objection with an appropriate response.

An abrasive manner is not desirable. Although a pushy interviewer can occasionally "bully" people into participation, this tactic is rarely required or appropriate and could adversely affect the quality of the data collected or the respondent's continued cooperation. Likewise, an interviewer who is too passive will be unsuccessful. Passivity conveys a lack of confidence or commitment to an action. This attitude will not motivate the basically neutral or "disinterested" respondent. You will have to "win over" such a person - to convince him/her of the importance of his/her participation. In a sense, you must "sell" the study to each respondent. In order to do this effectively, you must be thoroughly convinced of the importance of the work. If you are not convinced of the validity of the project, the respondent will never be.

6.5 Impaired Respondents

You may encounter a respondent who is impaired in some way. Impairment may take several forms. Our concern is whether the respondent is physically and mentally capable of participating in the study. This is a judgment that you will have to make.

If a respondent appears not to understand the questions or is giving senseless answers, be sure that you are not asking them too fast and are giving him/her time to think about his/her answers. If at any point during the household visits you suspect that the respondent does not comprehend the questions, or is too confused or impaired to give accurate answers, you should discontinue the data collection and talk to your supervisor.

You may encounter a respondent whom you judge to be under the influence of alcohol or drugs. If you have a respondent who appears to be intoxicated, do not begin data collection. Instead, attempt to reschedule for another time, and report this to your supervisor.

7. QUALITY CONTROL

7.1 Introduction

Quality control is important at all stages of the NHEXAS data collection process, but perhaps nothing affects the quality of the data as much as you do. Your ability, preparedness, and willingness to perform your tasks is the most important component of the overall quality control process. This chapter will discuss the quality control procedures that are in place to help you do your job to the best of your ability.

7.2 Evaluation of Training

During the two week training session, you will be provided with all the information necessary to properly perform as an interviewer on this study. This will include training on:

- administering the Descriptive Questionnaire
- administering the Baseline Questionnaire
- enrolling respondents in field monitoring
- making reminder calls for field monitoring team appointments
- administrative requirements

An essential part of this training will involve your hands-on practice -- practice administering the questionnaires, filling out your time sheet, etc. During this in-home training session, you will have the opportunity to actively practice different steps involved in being an effective interviewer for NHEXAS.

Once you have had the opportunity to practice the procedures and ask RTI questions about the process, the training staff will evaluate your performance in two ways -- with the completed Home Study Workbook that you will return to RTI, and a telephone evaluation. The purpose of this evaluation is two-fold: 1) to make sure that the project staff's training program is properly preparing you for your assignment, and 2) to assess your ability to administer the NHEXAS procedures correctly. Any interviewer whose evaluation is inadequate will receive additional training.

As indicated above, it is the project staff's job to properly train you to be an effective field interviewer on NHEXAS, and they will be evaluating your performance to see that this occurs. However, you will also be given the opportunity to evaluate their performance. At the end of training, you will be asked to complete the Evaluation of Training form to evaluate the training program and materials. Your feedback on the effectiveness of the NHEXAS interviewer training program will be critical for letting us know whether or not the training program was thorough and effective. Your evaluation also will be used to improve preparations for future RTI in-home training programs.

7.3 Verification

7.3.1 Screening

In order to provide continuing control of the quality and accuracy of the screenings and interviews, your work will be thoroughly verified. Inaccurate or falsified work is very costly to the project. The discovery of falsified work will result in immediate termination from the project.

Verification contacts will be made to 10% of all screenings that result in codes 10 ("vacant"), 13 ("not primary residence"), 18 ("not a housing unit"), 29 ("no one selected for interview-minimal roster"), and 30 ("no one selected for interview"). For these final screening codes, you are to obtain only the contact person's first name and telephone number. For codes 10, 13, 18, and 29, the contact person typically will be a neighbor; for code 30, it will be the screening respondent. The information is to be recorded on the front of the Descriptive Questionnaire. When asking for this information, you must emphasize that it is for verification purposes only; we only want to verify the quality of our work.

If the screening respondent/neighbor refuses to give you his/her name and telephone number, write "RE" for "Refused" in D10b and D11b of the Descriptive Questionnaire. If he/she does not have a telephone number, or if you can not locate anyone to verify codes 10, 13, or 18, write "NA" for "Not Available" or "Not Applicable." If you are successful in obtaining a name and/or telephone number, write "H" or "W" beside it to indicate whether it is a home or work number.

7.3.2 Documents

All completed questionnaires will be mailed to RTI. You will leave the completed Descriptive and Baseline questionnaires for the field monitoring team, along with the pertinent household information for each of the nine households within your PSU that will be participating in the field monitoring portion of the study. The field monitoring team will scan the work of all FIs while in the field and report any problems they find to RTI.

You will mail all noneligible and noninterview Descriptive Questionnaires, along with Baseline questionnaires for selected respondents who refused to participate in field monitoring, to your supervisor at RTI. After carefully reviewing your work, your supervisor will send it on to manual edit if there are no serious problems. If there are problems, your supervisor may return the case to you to rework.

All completed documents from the households participating in field monitoring will be sent to

RTI by the field monitoring team when they finish data collection at a household. These documents will also be forwarded on to manual edit.

As questionnaires are received at RTI's manual edit, checks will be made to ensure that they are complete and correct. They will be inspected to see that <u>all</u> appropriate information has been filled in correctly. Errors detected in the manual edit will be reported to your supervisor, who will review the problem(s) with you.

To minimize the number of errors found during the manual edit process, edit your work before leaving it with the field monitoring team. We all make occasional mistakes in this line or work; that's why RTI performs both manual and computer edits. However, being a truly professional interviewer requires <u>your</u> attention to ALL levels of details, however small and/or insignificant you may think they seem.

8. DOCUMENTING AND REPORTING PROCEDURES

8.1 Overview

Your documentation and reporting of field activities will be used to closely monitor the ongoing NHEXAS data collection efforts by you, your supervisor, and the RTI project management staff. There are various ways for you to document and report field activities. First, the actions you take to contact each respondent will be documented on the Record of Calls of the Descriptive Questionnaire.

Second, your documentation on the Assignment Control Form will provide an overview of your work progress for all of your assigned cases. The Assignment Control Form is discussed in the next section of this chapter.

Third, you will be reporting your fieldwork activities and experiences to your supervisor on a regular basis. Reporting requirements for the project are discussed in Section 8.3.

8.2 Assignment Control Form

You will receive three Assignment Control Forms (ACFs), one for each segment you are scheduled to work within your assigned county. The ACF (Exhibit 8-1) will act as a log for reporting activity on each case and will include a listing of all cases in the order selected. Across the top of the form is a listing of all data collection dates within the field period for your PSU. Each day, a code must be entered for every case that you work, until it reaches final status. The result codes appear on the Page 1 of the Descriptive Questionnaire and were discussed in Chapter 4.

For each case on the ACF, there is room for two codes in any given day. This space is labeled "SCREEN" and "INTERVIEW" in the second column of the ACF; the pending or final codes are to be entered in columns 3 through 14. You must assign a screening status code for every case in your possession. For all HUs that yield a selected respondent, you also must assign an interviewing result code.

To ensure that you do not forget what has occurred, mark the ACF immediately following contact at the housing unit. Result codes for the Descriptive and Baseline questionnaires must be recorded on the ACF for reporting purposes. If the case is not finalized, use pending code 01-09 for screening OR 50-59 for interviewing to record the outcome and be prepared for your supervisor's report.

REMEMBER TO RECORD ON THE ACF:

1. address changes of the SHU. These changes are to be given to your supervisor in order to keep the records current.

2. the appropriate pending and final codes (from Page 1 of the Descriptive Questionnaire). Final codes also should be recorded in the last column.

8.3 Reporting Requirements

During regularly scheduled telephone conference calls, your supervisor will review the status of your assignment with you. Your supervisor will schedule set times with you for these conferences. The information on your ACFs must be up-to-date and accurate, so that you will be prepared to discuss the topics listed below.

8.3.1 Status of Assigned Cases

As we have already discussed, you will update case status codes each day you work. Have your ACFs in front of you when your supervisor calls. The status of your cases will be reviewed in an order that is satisfactory with your supervisor.

8.3.2 Status of Ineligible Cases

All cases that result in ineligible HUs will need to be approved by your supervisor (over the telephone) before you mail the Descriptive Questionnaire to RTI and before you enter the code onto the ACF as a final result code. Once you have discussed these cases with your supervisor, mail the Descriptive Questionnaire to RTI and enter the final result code onto the ACF immediately.

8.3.3 Noninterview/Refusal Cases

Discuss all potential noninterviews with your supervisor. Provide your supervisor with information about the circumstances that resulted in the refusal or unwillingness to cooperate. Your supervisor will need to know the:

- person contacted
- predominant racial/ethnic background of the person contacted
- the address of the case in question
- the stated or implied reason for the noninterview (full details of situation)

This information will help you and your supervisor decide the best follow-up approach for the case, which could include your supervisor contacting the respondent or altering the time of contact, etc.

After you and your supervisor have discussed the case in detail, the appropriate follow-up action will be recommended. Only your supervisor can assign a final noninterview result code.

8.3.4 Problems Encountered During the Week

During your conference call, you should give your supervisor details about problems that you have encountered and about any special circumstances you foresee. Your supervisor will discuss with you strategies for dealing with potential problem areas or cases. These problems could include refusals, language barriers, locating problems, and so on.

8.3.5 Production in Relation to Project Goals

You must have a clear picture of the scope of your assignment, project deadlines and production goals in order for you to properly plan your workload. Your supervisor will help you set up production goals that will enable you to meet all necessary project deadlines. It will be advantageous to both you and the project if you are realistic and forthright when discussing goals with your supervisor.

8.3.6 Problems with Quality of Work

You can also discuss with your supervisor any questions or doubts you have concerning your understanding of the project materials or any project procedures. In turn, your supervisor will bring to your attention any problems identified while editing or verifying your work.

8.3.7 Plan for Next Week's Workload

Share your following few day's workload plan with your supervisor, who will help you refine your plan to meet specific individual and project goals. Planning your work in advance will increase efficiency and decrease costs. Thus, when planning the next few day's workload, you and your supervisor should discuss the location of your cases, any anticipated need for an escort, any anticipated travel problems, any unusual expenses you might incur, or any anticipated scheduling problems.

The following summarizes the reporting requirements for NHEXAS. If any point is unclear, discuss it with your supervisor.

a. Regular telephone conference with supervisor to report and discuss:

1. Status of assigned cases
2. Status of ineligible cases

3. Noninterview/Refusal cases
4. Problems encountered during the past days
5. Production in relation to project goals
6. Problems with quality of work
7. Plan for next few days workload
8. Request supplies or incentive advance if necessary
9. PT&E Data -- Your supervisor will ask you to report the number of hours worked, miles driven, and expenses incurred each week. Have your copy of the most recently completed PT&E available during the call.

b. Mail shipments to supervisor

1. On a weekly basis, PT&E Report (include other reimbursement forms, e.g., incentive receipts, telephone logs, escort forms, other receipts).

2. Completed Descriptive and Baseline Questionnaires for cases not involved in field monitoring <u>immediately</u> following your latest conference call with your supervisor.

3. Descriptive Questionnaires for noninterview and ineligible cases as instructed by your supervisor.

c. Deliveries to field monitoring team

1. For each respondent enrolled in field monitoring, you will deliver the following information to the field monitoring team:

   - Descriptive Questionnaire
   - Baseline Questionnaire
   - Informed Consent Form(s)
   - Incentive Receipt for Baseline Qustionnaire
   - Participant Enrollment Form
   - Respondent/Segment Information

2. For the first week's respondents enrolled in field monitoring, call your supervisor with the scheduling information. For the second week, deliver the completed Field Monitoring Appointment Sheet to the field monitoring team.

**[STOP AND COMPLETE EXERCISE 17
IN THE HOME STUDY WORKBOOK]**

Exhibit 8-1
Assignment Control Form

NATIONAL HUMAN EXPOSURE ASSESSMENT STUDY
ASSIGNMENT CONTROL FORM

PSU: 02
Segment: 023

Completed Interviews Needed: 2
Date Assigned: 06/09/95
Interviewer:

	JAN 1	JAN 2	JAN 3	JAN 4	JAN 5	JAN 6	JAN 7	JAN 8	JAN 9	JAN 10	JAN 11	JAN 12	JAN 13	JAN 14	JAN 15	JAN 16	JAN 17	JAN 18	JAN 19	JAN 20	JAN 21	Comments:	FINL CODE
LINE#: 25 ADDRESS: 27053 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 02 ADDRESS: 27459 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 09 ADDRESS: 27385 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 15 ADDRESS: 27321 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 22 ADDRESS: 27079 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 03 ADDRESS: 27441 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							
LINE#: 12 ADDRESS: 27355 Park Court APT/LOC: CITY: Madison HeightSTATE:MI ZIP: 48071																							
SCREEN																							
INTRVW																							

9. ADMINISTRATIVE PROCEDURES

9.1 Overview

Just as it is important for you to precisely follow instructions and procedures for data collection, it is equally important for you to adhere to administrative guidelines. Failure to do so is costly and time consuming and often results in the replication of completed tasks. Failure to properly complete administrative forms also can affect the accuracy of reports. Please be prompt and complete all administrative forms with care.

9.2 Terms of Employment

All interviewers working on NHEXAS are employees of SELECT Staffing Services, Inc. SELECT Staffing Services, Inc. will perform all functions related to payment for services rendered and expenses incurred, including deductions for federal and state taxes and social security. You will be asked to complete a W-4 form so that appropriate deductions can be withheld. The terms of employment have been spelled out in the Employment Agreement which will be signed, along with other employment forms, before training ends.

9.3 Authorization for Expenditures

Once you begin working, you must consult with your supervisor to obtain authorization prior to incurring any expenditure greater than $3.00. This is to control the budget and insure supervisor input in all decisions affecting field work.

Need for authorization extends to use of escorts and any other support you feel is necessary to complete your task. Expenses incurred without prior authorization are subject to denial of reimbursement. So, **please obtain prior approval for any such expenditures.**

9.4 Production, Time, and Expense Reporting

You are responsible for maintaining accurate records of daily production, time, and expenses while working on NHEXAS. This section provides information you need to know in order to complete the report form on which your expense reimbursement and earnings will be based. It is important for you to follow the outlined procedures precisely, because failure to complete your Production, Time, and Expense (PT&E) report correctly may result in a delay in processing for payment.

1. **Reporting Production**

You will need to maintain records of **completed** work so that this section of the report form can be completed accurately. For each day you work, you are required to enter total numbers of completed tasks in the production column, Section B of the PT&Es. Record this number beside the appropriate date.

2. **Reporting Time**

The Production, Time, and Expense Reports require that you report time spent each day in certain activities. These activities will include the tasks on which you are asked to report daily production work such as interviewing and travel time, etc. Again, it is your responsibility to keep accurate records of how you spend your time each day.

3. **Reporting Expenses**

Provision is made on the report forms for recording miles driven and other reimbursable expenses incurred **each day** you work. Record your odometer readings on a separate piece of paper when you leave home and when you return so that you can calculate actual miles driven on RTI business. Deduct any miles driven for personal business. Also, carefully keep track of tolls, postage, and other allowable expenses on a daily basis.

4. **Allowable Time and Expense Charges**

In order for you to be reimbursed for expenses, they must be allowable under RTI policy. Details of applicable policies follow. Be sure that you have a clear understanding of allowable charges before you begin your assignment. If you have questions about any expenses during fieldwork on this project, contact your supervisor before incurring any charges.

a. Allowable Charges for Field Data Collector Time

- Time spent in training for a study, including time spent in actual training sessions, time authorized to complete reading of project materials, including completion of homestudy materials and practice assignments.

- Time spent traveling on assigned RTI work (portal-to-portal).

- Time spent contacting households and conducting household visits.

- Time spent working with your supervisor or RTI staff member.

- Time spent, **within reasonable limits,** editing completed work, preparing reports, and shipping materials to RTI.

- Availability time.

b. Allowable Field Data Collector Expenses

- Mileage at the current RTI rate of $.30/mile for each mile driven on RTI business.
- Bus, subway, or other mass transit fares when such transportation is required to complete assigned work.
- Parking fees if free parking is not available in the general area you are visiting on business.
- Bridge, tunnel, and road tolls incurred if their use resulted in saving in time and/or mileage over alternate routes involving no tolls.
- Telephone charges for all calls made to RTI to complete your work will be covered by RTI's toll-free number. However, there may be phone charges for calls made within your PSU to complete your work. Submit these on your PT&Es for reimbursement.
- Postage paid by you for shipment of materials to your supervisor or RTI.
- Supplies purchased locally <u>after approval</u> is received from your supervisor.
- Lodging, travel, and <u>reasonable</u> meal costs when required to be away from home overnight to conduct fieldwork.

5. <u>Other Time and Expense Considerations</u>

Although the policies detailed in the preceding section should provide answers to most questions about allowable charges, occasionally unusual situations arise. This section provides guidance for such situations; however, if you have concerns about charges or your payment, contact your supervisor.

a. **If a non-allowable charge seems necessary in order to complete your work, secure approval from your supervisor.** If you cannot reach him/her and the charge is under $3.00, attach an explanation to your Production, Time, and Expense Report. RTI does, however, reserve the right to deny reimbursement for any expense that is not authorized.

b. Charges that are not allowable include:

- traffic or parking tickets
- taxi fare (unless on a special travel assignment)

6. **<u>Procedures for Paying Field Data Collectors</u>**

A supply of PT&E forms will be furnished in your initial supply shipment. Each report will cover a one-week period and will provide you, RTI's central office, and your supervisor with a summary of work completed during the period covered, as well as an account of money due you for hours worked and expenses incurred.

9.5 Filling Out the PT&E

All SELECT Staffing Services field staff must complete Production, Time, and Expense Reports and submit them in order to be paid. The PT&Es provide RTI's central office with a detailed summary of the tasks completed during a <u>one-week</u> period covered by the report and the time expended and expenses incurred in completing these tasks. Step-by-step instructions for completing these forms are provided below. Examples of properly completed PT&E Reports are attached (Exhibit 10-1). Please refer to these instructions and the examples as you are completing your reports to be sure you are making all required entries correctly. PT&E reports are to be completed in <u>ink</u>.

<u>Instructions for Filling Out the PT&E</u>

1. **Reporting Date** -- At the top of the form, enter date (month, day and year) of the Sunday on which the reporting period begins. Each reporting period runs for seven days, Sunday through Saturday. **If you did not work for an entire reporting week, check the "DID NOT WORK" box and submit your PT&E Report to your supervisor.**

2. **RTI Project Number** -- The project number, **5740-012**. Be sure to write this in the RTI Project Number box in the upper right hand corner of the PT&E.

3. **Section A (Date)** -- This section identifies the days by date in a one-week reporting period. Enter the corresponding date for each day shown.

4. **Section B (Production)** -- Enter the number of Baseline Questionnaires you completed each day. DO NOT INCLUDE CONTACTING OR LOCATING ATTEMPTS IN YOUR ENTRIES. Add the entries in the column at the end of the week and record the total. Also note that you are <u>required</u> to record the case IDs of each respondent you enroll in Column B-1 in the bottom right-hand corner of the form. These case IDs pertain ONLY to respondents who agree to participate in field monitoring. If the respondent completes the Baseline Questionnaire, but refuses field monitoring, DO NOT enter their case ID in B-1.

5. **Section C (Time)** -- Entries are to be made for each day that you work. In Column C-1, enter the total hours worked during the day, expressed in <u>hours and portions of an hour to the nearest quarter hour</u>. (Four hours and 15 minutes = 4.25; 3 1/2 hours = 3.50, etc.) Then, show how these hours were spent doing project work by distributing the time

worked across Columns C-2 through C-8 as appropriate. The "time" categories are defined as follows:

- Study/Training -- Except for the in-home study and telephone evaluation, this column will probably not be used. However, if you are authorized by your supervisor to spend time doing remedial study, record the time in this column.

- Travel -- Record time spent traveling to and from and between assignment areas and appointments. (Do not include time spent for meals or errands.)

- Contacting/Locating -- Record time spent locating and contacting households and respondents. Include time spent making appointments, explaining the study to respondents, obtaining parental consent, screening (administering the Descriptive Questionnaire) etc.

- Interviewing -- Record time spent administering the Baseline Questionnaire and enrolling respondents in field monitoring; do not include time spent contacting or locating.

- Editing -- Record time spent editing cases in the field.

- Conference -- Record time spent preparing for and in conference with your supervisor, as well as with the RTI project staff.

- Other -- Record time spent performing other allowable project activities (e.g., time spent going to the post office, etc.). Include time spent on making appointments or reminder calls to respondents enrolled in the sampling portion of the study. Note that you must describe "Other" activity in the "Notes" section in the bottom right-hand corner of the report.

  TOTAL THE ENTRIES IN ALL THESE COLUMNS AT THE END OF THE WEEK.

6. **Section D (Expenses)** -- Enter the following for each day you work:

- Total Expenses -- On any day you incur expenses, record the total amount of all such expenses for that day in column 10. Then allocate the expenses to columns 11-15 AS APPROPRIATE. Please note the following:

  - *Lodging* - **Receipts must be attached**; check with your supervisor regarding government reimbursement rates for rooms in the location in which you are traveling.

  - *Meals* - When on travel status, report actual cost for meals; check with your supervisor for established daily limits in the location in which you are traveling. Meals are only reimbursed if you are on travel status.

- *Telephone* - **Receipts must be attached**; complete the "Telephone Log" when submitting your monthly telephone bill (see Section 10-8).

- *Auto Rental* - **Receipts must be attached**; rental must be pre-approved by supervisor.

- *Miscellaneous* - Record any miscellaneous allowable project expenses. All such expenses should be approved by your supervisor. **Attach receipts** to your PT&E and explain items in excess of $3.00 in the NOTES section.

- <u>Incentives</u> -- **Receipts must be attached.** The incentive payments you give to each respondent for completing the Baseline Questionnaire must be recorded in this column. For an incentive payment made to a respondent, complete the Receipt for Incentive Payment Form, as shown in Exhibit 10-2. Give the goldenrod copy of the form to the respondent, attach the yellow copies to your PT&E, and keep the pink copy to give to the field monitoring team. Be sure to include copies of receipts for all incentives paid. Note -- The incentives you pay out will be deducted from your Incentive Advance by RTI, once we have verified the amount shown in this column by checking it against the Incentive Receipt Forms you return. NOTE THAT "INCENTIVES" (COL. 16) IS A STAND-ALONE COLUMN. DO <u>NOT</u> <u>INCLUDE</u> INCENTIVES WHEN CALCULATING "TOTAL EXPENSES" IN COLUMN #10.

7. **Totals** - As indicated, all columns must be totaled at the end of the week.

8. **For Office Use Only** -- Do not make any entries in this section. RTI will complete this section to determine the total amount due as payment for your service and reimbursement for mileage and expenses.

9. **Certification Section** -- Complete this section by <u>printing</u> your name, ID number, date, Social Security Number, complete mailing address, and telephone number. Then sign the form in ink (unsigned forms cannot be processed and will be returned, thus delaying payment to you!).

10. **"Advance Repayment" Box --** This box is to be used <u>only</u> if you have an outstanding travel or incentive advance. Rather than returning/repaying the outstanding advance to RTI, you can specify an amount to be deducted from your pay. Note that RTI reserves the right to deduct any amount deemed appropriate, when necessary.

11. **Notes** -- The "Notes" section in the bottom right-hand corner of the form is for explaining "Other" time and expenses as directed. Also, to avoid delaying approval of your PT&E Report, be sure to explain in this section any unusually high time charges or expenses.

The PT&E Report is to be maintained daily. Do not rely on your memory to complete it at the end of the week. It is essential to project management that each PT&E Report be completed accurately and submitted on time. Field efficiency and cost reports are prepared regularly by central office project staff. If your report is completed incorrectly or submitted late, it not only disrupts the project reporting schedule, but also will delay payment.

The PT&E Report is to be sent weekly via first-class mail to your supervisor at RTI for review and approval. Mail the original, yellow, and pink copies of your PT&E (with the required receipts attached) to your supervisor via first-class mail, no later than Monday of each week. We will provide you with a preposted, pre-addressed envelope. Keep the gold copy for your records, and for reference during your telephone conferences with your supervisor.

9.6 Common Errors

The following examples are some of the most common errors made by field interviewers when completing PT&Es. Most are the result of negligence rather than lack of understanding.

1. Failure to sign PT&E.

2. Failure to enter complete/correct Social Security number.

3. Incorrect totals or no totals in columns and rows.

4. Minutes not rounded to quarter hours and not recorded in decimal form (two decimal points).

Please do not record minutes. Round to the nearest quarter hour:

Time Worked	Incorrect Entry	Correct Entry
1 hour and 15 minutes	1:15	1.25 hrs.
1 hour and 30 minutes	1:30	1.50 hrs.
1 and 3/4 hours	1:45	1.75 hrs.

5. Breakdown of time is not recorded in the proper column, or is totaled in a column other than the one in which daily entries are recorded.

6. Incorrectly including the incentive amount from column 16 in the total expenses in column 10.

9.7 Incentive Payments

As discussed earlier, an incentive will be paid to all respondents for each portion of the study they complete. You will be responsible for making the incentive payment in cash to the respondent at the conclusion of the Baseline questionnaire. After you have given the respondent the incentive payment, complete the Receipt for Incentive Payment Form (Exhibit 10-2) with them. Give the goldenrod copy to the respondent, give the pink copy to the field monitoring team, and attach the yellow copies to your PT&E. Before making a personal contact with a respondent, make sure that you have the following items with you:

- the Receipt for Incentive Payment Form
- the envelope with the incentive payment

To cover the incentives that you pay to the respondents, you will be issued an advance check prior to the start of data collection. In preparing for household visits, you must take the money for the payments with you. As a safety precaution, you should take no more incentive money than you need for the appointments you have scheduled. Try to have sufficient denominations of bills to make the correct payments.

If you are on travel status, expense advances will be made by a SELECT STAFFING SERVICES, INC. check through RTI. <u>This advance is, in effect, a loan for which you are responsible to repay.</u> All expenses related to an advance are to be reported on your PT&E and appropriate deductions will be made from your advance account.

9.8 Telephone Log

All long-distance calls made for this project are to be entered on the Telephone Log. An example of a properly completed log is shown in Exhibit 10-3.

Columns 1-5 are to be completed at the time you make your call:

- Column 1 - enter date
- Column 2 - enter purpose of call
- Columns 3 and 4 - enter area code and phone number
- Column 5 - enter project number (5740-012)

Upon receipt of your telephone bill, enter the charges per call in Column 6, and attach a copy of your bill with the project calls highlighted. Send the original, yellow, and pink copies to your supervisor, and keep the gold copy for your records. After completing the Telephone Log, enter the amount of your bill onto your PT&E in the "Telephone" column in the Expenses section.

9.9 Escorts

The use of escorts must be authorized by your supervisor. Verbal authorization must occur prior to your usage. You are responsible for paying for escort services based on an hourly rate negotiated with the escort and approved by your supervisor. Upon approving your use of an escort, your supervisor will complete Part A of the "Receipt For Escort Services" form (Exhibit 10-4), indicating the approved rate and the projected number of hours. The supervisor then will mail the receipt to you. In order for you to be reimbursed, you must complete the remaining sections of the "Receipt for Escort Services" form, have the escort sign it, and attach the original and pink copies to your PT&E. This payment must be entered on your PT&E under the column headed "Miscellaneous Expenses." The yellow copy should be given to the escort. The white and pink copies should be attached to your weekly PT&E and sent to your supervisor.

9.10 Field Accidents and Injuries

If you happen to be involved in an auto accident (whether injured or not), or have any type of fall or accident (again, whether injured or not), you must contact your supervisor as soon as is practically possible. She will work with you to ensure that the accident is promptly and properly reported to RTI and to SELECT Staffing Services, Inc. It is important that the nature of the accident is reported to SELECT Staffing Services, Inc. within one business day if at all possible.

Exhibit 9-1
Completed PT&E Report

SELECTEMPS[®]

under subcontract with
Research Triangle Institute
Center for Survey Research
PO Box 12194, Research Triangle Park, NC 27709

Production, Time, and Expense Report (PT &E)

Week beginning Sunday 3 (Month) 10 (Day) 96 (Year)

☐ DID NOT WORK

RTI Project Number: 5740-012

A: Day of Week	A: Date	B: Production — Number of Completed Interviews*	C-1: Total Hours Each Day**	C-2: Study/ Training	C-3: Travel	C-4: Contacting/ Locating	C-5: Interviewing	C-6: Editing	C-7: Conference	C-8: Other[1]
Sun	3/10									
Mon	3/11									
Tues	3/12	1	3.25		.50	1.75	.50		.50	
Wed	3/13	1	2.25		.75	.50	.50	.60		
Thurs	3/14	1	1.50		.50	.50	.50			
Fri	3/15		1.50		.50	.50			.50	
Sat	3/16	1	31.50		.75	1.50	.75	.50		28.00
Totals		4	40.00		3.00	4.75	2.25	1.00	1.00	28.00

D: Expenses	9: Miles Driven	10: Total Expenses	11: Lodging[1]	12: Meals Actual Expenses[1]	13: Telephone[1]	14: Auto Rental[1]	15: Miscellaneous[1]	16: Incentives[1]
Sun		63.85	40.95	22.90				
Mon		86.71	40.95	29.01	1.75		15.00	
Tues	15	67.70	40.95	26.75				5.00
Wed	22	69.97	40.95	26.02	3.00			5.00
Thurs	10	80.40	40.95	25.45			14.00	5.00
Fri	15	73.78	40.95	30.62	2.21			
Sat	30	[illegible].49	40.95	28.54			8.00	5.00
Totals	98	519.90	2[illegible].65	179.29	6.96		37.00	20.00

FOOTNOTE EXPLANATIONS
* Record ID numbers in column B-1.
** Enter total hours worked each day to the nearest .25 hour; then allocate time as appropriate in columns C-2 through C-8. Partial hours must be expressed in decimal form rather than as fractions.
[1] Specify activity in the Notes section below.
[1] Report actual meal expenses within established daily limits (see project or general manual).
[1] Explain all items in the Notes section below. Receipts must be attached for items exceeding $3.00.
[1] Incentive receipts must be attached

ADVANCE REPAYMENT: If you have an outstanding travel or incentive advance, indicate the amount you would like deducted from this PT&E: $ ________
Client (RTI) reserves the right to deduct any amount deemed appropriate.

FOR OFFICE USE ONLY

SUMMARY

Total Hours (Col C-1) ______ x $ ______ = $ ______
Overtime ______ x $ ______ = $ ______
Total Miles (Col D-9) ______ x $ ______ = $ ______
Total Expenses (Col. D-10) = $ ______
Advance Repayment = ($ ______)
ARO # ______
TOTAL AMOUNT DUE = $ ______

Approved by: ______ (Supervisor) Date ______

123-45-6789 Social Security Number
978654 ID Number

Name: Ima Effeye (Please print)
Address: 101 Main Street (Number) (Street)
City: Anytown State: NC ZIP: 01234
☐ Please check if name or address change
Telephone: (919) 555 - 0000

I certify that this statement is true, correct, and complete and that the data collected and submitted are truthful.

Signature: Ima Effeye Date: 3/17/96

B-1: Record ID #s of Interviews Completed During the Week	Notes:
	28hr is availability time
	misc expense - gas for car

Disposition: Send original, yellow and pink copy to supervisor, retain gold copy for records

10/93

Exhibit 9-2
Receipt for Incentive Payment

RTI — RESEARCH TRIANGLE INSTITUTE Center for Survey Research	***CASH INCENTIVE RECEIPT***
RTI PROJECT # ______________--________	**CASE ID # ______________**

To show our appreciation for the time you spent answering our questions, we are authorized to pay you a cash incentive. Please indicate that you received (or refused) the money by checking the appropriate box and signing below.

☐ **I received**
the cash incentive of ____________________ dollars ($________).
☐ **I refused**

Recipient's name (print) ______________________________________

Recipient's signature ______________________________________ **Date** _____/_____/_____

Interviewer's signature ______________________________________ **FI ID#** ______________

Disposition: Original with PT&E, Yellow per project instructions, Pink to recipient. 2/94

Exhibit 9-3
Telephone Log

Page 1 of 1

Research Triangle Institute

TELEPHONE LOG

For Period 2/4/96 to 3/3/96

Submitted By: Ima Effeye
(Please Print)

ID #: 978654

INSTRUCTIONS

1. Make entries in Columns 1-5 when call is made; complete Column 6 when monthly billing is received.
2. Enter purpose of call in Column 2 (i.e., interview, conference, refusal contact, validation, etc.)
3. Attach completed log form(s) to the Production, Time, and Expense Report (PT&E) along with the telephone bill original or clear photocopy.

(1) Date	(2) Purpose of Call	(3) Area Code	(4) Telephone Number	(5) Charge Project	(6) Charges	Do Not Use
2/15	reminder	312	555-0246	5740	.55	
2/16	reminder	312	555-0136	5740	.75	
2/28	hotel reservation	317	555-9876	5740	1.10	
3/3	reminder	317	555-1111	5740	.25	

Disposition: Send original and yellow copy to RTI with Monthly Telephone Invoice; pink copy to Supervisor; retain gold copy for your records.

2/95

Exhibit 9-4
Receipt for Escort Services

RESEARCH TRIANGLE INSTITUTE /RTI

Post Office Box 12194 Research Triangle Park, NC 27709

RECEIPT FOR ESCORT SERVICES

Instructions: Field Supervisor: Complete Section A prior to mailing form to the field interviewer and enter data on Escort Authorization Log.

Field Interviewer: Complete Section B upon termination of the escort's services.

A

Project No. ____________ FI Name ____________

Approved Rate: $ ______/hr. Estimated Total Hours ____________

Pre-approved on ____/____/____ by ____________
Date FS Signature

B

Escort Name: ____________

Address: ____________

____

Telephone No.: (______) ______ - ______

Social Security Number: ___ ___ ___ - ___ ___ - ___ ___ ___ ___

Received $ ________ from ____________
FI Name

for escort services rendered on ____________
Date(s)

while working in ____________
City/Town State

Amount based on a total of ______ hours worked at a rate of $ ______/hour.

Signatures: ____________ ___/___/___
Escort Date

____
Field Interviewer

Disposition: Attach ORIGINAL to Interviewer's PT&E Report
Give yellow copy to escort
Send pink copy to field supervisor

10/93

APPENDIX A

QUESTION-BY-QUESTION SPECIFICATIONS

Descriptive Questionnaire

D3 A **primary residence** is defined as a residence where one or more people in the household usually live, sleep and receive mail there more than 6 months out of the year.

D5 A **group quarters** is defined as any single structure in which ten or more unrelated persons reside. This definition would apply to any structure, including houses, apartments, barracks and dormitories. Probe to find out the relationships between all housing unit members.

D6b An example would be a family member listed who may have just moved out (i.e., gone to college, started living on own, etc.).

D6f It is important that <u>the respondent</u> make the decision about Hispanic origin. You should not assume Hispanicity based on the respondent's name.

D6h For this question, we are only interested in **tobacco products** that people **smoke**, such as cigarettes, cigars and pipefulls of tobacco. Do NOT include smokeless tobacco products such as chewing tobacco or snuff.

D6j Include time spent working in or away from the home.

B6a	**Tobacco products** include cigarettes, cigars and pipefulls of tobacco. **Smokeless tobacco** includes chewing tobacco and snuff.
B6b	Circle 'Y' only if the respondent has ever smoked on (what they consider to be) a regular basis. Do not include experimental smoking such as just trying one cigarette or taking a puff of a cigarette to see what it is like.
B6c	Only include the period where respondent last REGULARLY smoked. Do not include instances in which the respondent took just a single "puff" of a cigarette.
B7a	If the respondent says this varies/varied greatly, emphasize that we are interested in the average number of cigarettes smoked during most of his/her smoking period.
B8a-d	For these questions, include the respondent as 'someone who was smoking tobacco'.
B9	Circle 'Y' even if only one instance of smoking inside the home occurred during the past month.
B10a	Include spray paint as well as enamel or acryllic paint
B11	Do not include fruits or vegetables frozen and eaten later.
B14b	Information recorded in B14b-d will be used to assign two 3-digit codes describing the industry in which the respondent works as well as occupation. The level of detail you record is extremely important for accurate coding of responses. Always record as much detail as possible.

Describe the industry, as specifically as possible. Please read the following examples carefully.

BAD	GOOD
Auto Shop	Auto Repair Shop Service Station Auto Parts Store
Nurse	RN - Neonatal unit in hospital RN - home nursing care LPN - doctor's office
Manufacture Belts	Manufacture leather belts Manufacture timing belts for cars

Mining	Silver Mining Copper Mining
Teacher	12th Grade English Teacher at a private school Special - Education teacher in public elementary school Professor of Psychology at the University of Michigan
Foundry	Steel Foundry Iron Foundry

Include type of company and department or division, specifying the product made is extremely important. For example, if the respondent says "newspaper delivery,' distinguish whether he/she works for a publisher or a distributor. If the respondent says "Liggett and Myers," ask him/her to define what his/her division of the company does (Liggett and Myers makes and distributes dog food, jewelry, and lawn mowers, as well as tobacco products).

B14c Record job title, or a short phrase that accurately describes the work done. If the respondent is a supervisor, be sure to record in which department.

B14d Record major responsibilities (most important activities or duties) at work, such as:

Oversees account receivables clerk, makes sure accounts are kept current and paid on time.
Does computer graphics, designs signs and banners
Types, files, answers phone, keeps boss organized
Places orders, serves food to customers, makes sure customers are happy
Takes pictures requested,develops film, prints pictures
Design parts for existing machines to modify the parts produced by the machines

B16b Information recorded in B16b-d will be used to assign two 3-digit codes describing the industry in which the respondent works as well as occupation. The level of detail you record is extremely important for accurate coding of responses. Always record as much detail as possible.

Describe the industry, as specifically as possible. Please read the following examples carefully.

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Types, files, answers phone, keeps boss organized
Places orders, serves food to customers, makes sure customers are happy
Takes pictures requested,develops film, prints pictures
Design parts for existing machines to modify the parts produced by the machines

B29c Record the months that the respondent ***usually*** first turns their air conditioning on and ***usually*** last turns their air conditioning off.

B32 Record the months that the respondent ***usually*** first turns their heating device on and ***usually*** last turns their heating device off.

APPENDIX B

NHEXAS DOCUMENTS

OMB Clearance #: 2080-0053
Expires: 7/31/98

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

DESCRIPTIVE QUESTIONNAIRE

Identification Number

____

(Record ID Here)

February 16, 1996

Date	Day of Week	Time	Comments	Screening Result Code	Interview Result Code	FI ID No.
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				
		am/pm				

SCREENING RESULT CODES (Circle Final Screening Code)

Pending Codes:
- 01 = No one at HU
- 02 = Eligible Screening Respondent unavailable
- 03 = Neighbor indicates occupancy
- 04 = Physically/mentally incompetent
- 06 = Language barrier
- 07 = Refusal (CALL SUPERVISOR)
- 08 = Unable to Locate HU
- 09 = Other (Specify in Comments Section)

Final Codes:
- 10 = Vacant (1)
- 11 = No one at HU after repeated visits
- 12 = Eligible Screening Respondent unavailable after repeated visits
- 13 = Not primary residence (1)
- 14 = Physically/mentally incompetent
- 15 = Language barrier
- 17 = Refusal (CALL SUPERVISOR)
- 18 = Not a housing unit (1)
- 19 = Group quarters
- 21 = Other (Specify in Comments Section)
- 30 = No one selected for interview (1)
- 31 = One selected

INTERVIEW RESULT CODES (Circle Final Interview Code)

Pending Codes:
- 51 = No one at HU
- 52 = Appointment broken
- 53 = Respondent unavailable, call back
- 54 = Break off (partial interview)
- 55 = Physically/mentally incompetent
- 57 = Language barrier
- 58 = Refusal (CALL SUPERVISOR)
- 60 = Other (Specify in Comments Section)

Final Codes:
- 70 = Baseline interview complete, agrees to monitoring (2)
- 71 = Baseline interview complete, refuse monitoring
- 72 = Refusal (CALL SUPERVISOR)
- 73 = Break off, partial interview/refusal (CALL SUPERVISOR)
- 74 = No one at HU after repeated visits
- 75 = Respondent unavailable after repeated visits
- 76 = Physically/mentally incompetent
- 77 = Language barrier
- 78 = Other (Specify in Comments Section)

(1) Complete Verification

(2) Record monitoring appointments and complete Field Monitoring Appointment Sheet

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

DESCRIPTIVE QUESTIONNAIRE

LOCATION DATA (Technician Completed--address/ID label)

State______________ County______________

Census Tract____________Block ______________

Street Address____/______
Apt./Space #

City, Zip____/________
Zip code

GPS Reading: Latitude ________________________________

Longitude ________________________________

INTERVIEWER/TECHNICIAN ID: ________________ **Date Completed:** ____/____/____

Hello. I'm (NAME) with Research Triangle Institute. We are conducting a study in cooperation with the Environmental Protection Agency on exposures to substances in the environment in and around your home. You have been selected at random to participate in this study. We mailed a letter to this address that explains the importance of your participation. Do you remember receiving this letter? IF LETTER NOT RECEIVED, HAND COPY TO RESPONDENT. ALLOW TIME FOR READING, ANSWER ANY QUESTIONS.

HOUSEHOLD ELIGIBILITY

D1. VERIFY ADDRESS FROM LIST OF DU'S AND RECORD ADDRESS BELOW.

ADDRESS:____
Street/RFD Apt. #

____
City State ZIP Code

D2. VERIFY THAT THE RESPONDENT IS A PERMANENT RESIDENT OF THE HOUSEHOLD (NOT A VISITOR, BABY SITTER, HOUSE SITTER, ETC.), RESIDES WITH THE MEMBERS OF THE HOUSEHOLD AT LEAST HALF THE YEAR, AND IS AT LEAST 18 YEARS OLD. IF RESPONDENT IS NOT A RESIDENT OF THE HOUSEHOLD OR IS NOT 18 YEARS OR OLDER, REQUEST TO SPEAK TO SOMEONE ELIGIBLE TO ANSWER FOR THE HOUSEHOLD. IF AN ELIGIBLE SCREENING RESPONDENT IS OBTAINED, CIRCLE "1." IF NO ELIGIBLE SCREENING RESPONDENT IS AVAILABLE, CIRCLE "2."

ELIGIBLE SCREENING RESPONDENT . . . . 1 → CONTINUE

NO ELIGIBLE SCREENING RESPONDENT . . . . 2 → STOP. ENTER PENDING CODE 02 ON RECORD OF CALLS AND THANK RESPONDENT.

D3. Is this property your primary residence or is it a vacation home or second home where you live less than half the year ? (CIRCLE ONE.)

PRIMARY RESIDENCE	1 →	CONTINUE
VACATION/SECOND HOME	2 →	GO TO D11

D4. Do 10 or more people live at this address? (CIRCLE "Y" OR "N.")

YES	Y →	CONTINUE
NO	N →	GO TO D6

D5. (PROBE FOR RELATIONSHIPS.) Is this (house/apartment) a group quarters? (CIRCLE "Y" OR "N.")

YES	Y →	GO TO D11
NO	N →	CONTINUE

HOUSEHOLD ROSTER

D6a. First, I would like to ask a few general questions about you and the other people who live here now. Just to be sure I account for everyone, please tell me the first names of all the people who currently live here. Let's begin with the person or persons who own the residence or pay the rent. (ENTER FIRST NAMES IN COLUMN B OF THE ROSTER. ENTER RELATIONSHIP TO HEAD OF HOUSEHOLD IF FIRST NAMES ARE REFUSED.)

I have listed (NAMES). Is there anyone else living here now such as friends, roomers, or other people we might have overlooked? (IF SO, ADD THEM TO THE ROSTER.)

ASK QUESTION D6b. FOR EACH LISTED INDIVIDUAL.

D6b. Is (NAME) a full-time resident of this household, that is, a person who lives in the residence year round, except for short periods of time?

YES . . . . Y → CONTINUE
NO . . . . N → DELETE FROM ROSTER

ASK QUESTIONS D6c-k FOR EACH LISTED INDIVIDUAL. RECORD RESPONSE IN ROSTER.

D6c. CIRCLE THE SEX ("M" FOR MALE OR "F" FOR FEMALE) OF EACH PERSON IN COLUMN C. ASK IF NOT OBVIOUS.

D6d. What is (NAME's) year of birth? (ENTER 2 DIGITS IN COLUMN D.)

D6e. What is (NAME's) race? (READ CHOICES AND CIRCLE ONE NUMBER IN COLUMN E.)

White 1
Black or African-American 2
American Indian 3
Eskimo or Aleut 4
Asian or Pacific Islander 5
Some other race (Specify:______________) 6
DON'T KNOW . . . . DK
REFUSED . . . . RE

D6f. Is (NAME) of Hispanic or Spanish origin? (CIRCLE RESPONSE IN COLUMN F.)

YES . . . . Y
NO . . . . N
DON'T KNOW . . . . DK
REFUSED . . . . RE

D6g. How much school has (NAME) completed? (READ CHOICES AND CIRCLE ONE NUMBER IN COLUMN G FOR THE HIGHEST LEVEL COMPLETED OR DEGREE RECEIVED. IF CURRENTLY ENROLLED, CIRCLE THE LEVEL OF THE PREVIOUS GRADE ATTENDED OR HIGHEST DEGREE RECEIVED.)

No schooling completed or kindergarten only	1
Primary or middle school (Grade 1 through 8)	2
Some high school (Grade 9 through 11)	3
High school graduate (Grade 12 or GED)	4
Some college or technical school	5
College graduate	6
Some post-college	7
DON'T KNOW	DK

D6h. Does (NAME) smoke tobacco products? (CIRCLE RESPONSE IN COLUMN H.)

YES	Y →	CONTINUE
NO	N →	GO TO D6j
DON'T KNOW	DK →	GO TO D6j

D6i. Does (NAME) smoke inside the house? (CIRCLE RESPONSE IN COLUMN I.)

YES	Y
NO	N
DON'T KNOW	DK

D6j. Does (NAME) work outside the home? (CIRCLE RESPONSE IN COLUMN J.)

YES	Y
NO	N
DON'T KNOW	DK

D6k. Does (NAME) attend school or day care outside the home? (CIRCLE RESPONSE IN COLUMN K.)

YES	Y
NO	N
DON'T KNOW	DK

HOUSE CHARACTERISTICS

D7. I would now like to ask you a few questions about your home. Is your home... (READ CHOICES AND CIRCLE ONE. INCLUDE ALL APARTMENTS, FLATS, ETC., EVEN IF VACANT.)

A mobile home or trailer 1
A one-family house detached from any other house 2
A one-family house attached to one or more houses 3
A building with 2 apartments 4
A building with 3 or 4 apartments 5
A building with 5 to 9 apartments 6
A building with 10 to 19 apartments 7
A building with 20 to 49 apartments 8
A building with 50 or more apartments 9
Other (Specify: ____________________) . . 10

D8. How many rooms are there in this house or apartment? Do NOT count bathrooms, porches, balconies, foyers, or halls.

_____ Rooms

D9. Is this house or apartment... (READ CHOICES AND CIRCLE ONE.)

Owned by you or someone in this household with a mortgage or loan? 1
Owned by you or someone in this household free and clear (without a mortgage)? 2
Rented for cash rent? 3
Occupied without payment of cash rent? 4
DON'T KNOW . . . . DK

RESPONDENT SELECTION

D10. a. WHAT IS THE ROSTER LINE NUMBER OF THE SELECTED PARTICIPANT? ENTER "00" IF NO ONE IS SELECTED AND GO TO QUESTION D11.

b. OBTAIN FULL NAME OF SELECTED PARTICIPANT.

FULL NAME OF PARTICIPANT ________________________________

c. IF PARTICIPANT IS UNDER 18, OBTAIN FULL NAME OF PARTICIPANT'S GUARDIAN.

FULL NAME OF GUARDIAN ________________________________

D11. My supervisor needs to call some of the people I talk with in order to verify my work.

a. Do you have a telephone in this house or apartment?

YES	Y →	CONTINUE
NO	N →	GO TO D11c
DON'T KNOW	DK →	GO TO D11c
REFUSED	RE →	END OF SCREENING. ENTER FINAL RESULT CODE AND THANK RESPONDENT.

b. What is the telephone number, starting with the area code?

(______) - ______-________ .... → GO TO D12

c. **Is there a telephone on which you can receive calls?**

YES	Y →	CONTINUE
NO	N →	END OF SCREENING. ENTER FINAL RESULT CODE AND THANK RESPONDENT
REFUSED	RE →	

d. **What is the telephone number, starting with the area code?**

(_____) - ______-________

D12. When would be a good time to call you?

____

ENTER FINAL RESULT CODE AND THANK RESPONDENT.

OMB Clearance #: 2080-0053
Expires: 7/31/98

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

BASELINE QUESTIONNAIRE

Participant Identification Number

____

(Record ID Here)

INTERVIEWER/TECHNICIAN ID: ______________

Date Completed: _____/_____/_____

August 2, 1995

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

BASELINE QUESTIONNAIRE

==

DESIGNATED PARTICIPANT

(If the participant is less than 10 years old, what is the name of the individual who is providing the answers for the designated respondent?)

Name of Participant____

Completed by______________________________(if other than participant)

Relation to participant____

Home Phone_____________ Date:___/___/___

==

LOCATION DATA (Technician Completed--address/ID label)

State___________ County___________

Census Tract__________Block ___________

Street Address____/______
Apt./Space #

City, Zip____/_______
Zip code

==

INTERVIEWER/TECHNICIAN ID: ________________Date Completed: ____/____/____

==

DEMOGRAPHICS

These first questions ask about (you/this child). (REMIND PARENT/GUARDIAN TO RESPOND FOR CHILD.)

B1. What is the highest level of school (you have/this child has) completed? (READ CHOICES AND CIRCLE ONE. IF CURRENTLY ENROLLED, MARK THE LEVEL OF PREVIOUS GRADE COMPLETED OR HIGHEST DEGREE RECEIVED.)

No school completed or Kindergarten only	1
Primary or middle school (Grade 1-8)	2
Some high school (Grade 9-11)	3
High school graduate (Grade 12 or GED)	4
Some college or technical school	5
College graduate	6
Some post college	7

B2. CIRCLE SEX OF PARTICIPANT.

MALE	1
FEMALE	2

B3. What is (your/his/her) date of birth? ______/______/___
Month Day Year

B4. How tall (are you/is he/she) without shoes? ____ft ____inches

B5. How much (do you/does he/she) weigh? ______ pounds

ASK QUESTIONS B6 AND B7 ONLY IF RESPONDENT IS 10 YEARS OLD OR MORE. IF RESPONDENT IS LESS THAN 10, GO TO INTRODUCTION ABOVE B8.

B6a. (Do you/Does he/she) currently smoke tobacco products or use smokeless tobacco products? (CIRCLE "Y" OR "N.")

YES	Y → GO TO B7a
NO	N → CONTINUE
DON'T KNOW	DK → CONTINUE

B6b. (Have you/Has he/she) ever smoked tobacco products or used smokeless tobacco products? (CIRCLE "Y" OR "N")

YES	Y →	CONTINUE
NO	N →	GO TO INTRODUCTION ABOVE B8
DON'T KNOW	DK →	CONTINUE

B6c. How long ago did (you/he/she) stop using tobacco products? (ENTER NUMBER OR "DK")
________ → GO TO INTRODUCTION ABOVE B8

B7a. On average, how many <u>cigarettes</u> (do you/does he/she) smoke *per day*? (READ CHOICES AND CIRCLE ONE.)

None	1
Less than ½ pack	2
½ pack or more, but less than 1 pack	3
1 pack or more, but less than 1½ packs	4
1½ packs or more, but less than 2 packs	5
2 or more packs	6
Occasional (social smoker)	7
DON'T KNOW	DK

B7b. On average, how many <u>cigars</u> (do you/does he/she) smoke per day? _______

B7c. On average, how many <u>pipefuls of tobacco</u> (do you/does he/she) smoke per day? ______

B7d. On average, how many times per day (do you/does he/she) use <u>smokeless tobacco products</u>?

PERSONAL EXPOSURE ACTIVITIES

These next few questions are about things that happen at your home, on the job, or in school, and food (you/he/she) eat(s) that might put (you/him/her) in touch with the chemicals we are studying. Some of these questions ask about different periods of time. Some ask about the ***past month***, some ask about the ***past 3 months***, and some ask about the ***past 6 months***. In order to help make these time periods clear, please think about something (you/he/she) did or which happened to (you/him/her) about ***1 month ago***, ***3 months ago***, and ***6 months ago***. For example, finished school, got married, had a baby. Please tell me what each event was so that I can use them later. (RECORD EVENTS HERE AND USE AS NEEDED DURING INTERVIEW.)

1 MONTH EVENT: ______________________________

3 MONTH EVENT: ______________________________

6 MONTH EVENT: ______________________________

B8. On average for the ***past month***, how many (hours/minutes) ***per week*** did (you/he/she) spend.... (IF LESS THAN 1 HOUR, ROUND TO THE NEAREST QUARTER HOUR; IF LESS THAN 10 HOURS, ROUND TO THE NEAREST HOUR; IF GREATER THAN 10 HOURS, ROUND TO THE NEAREST 10 HOURS, E.G., 10, 20, 30, 40, 50 HOURS. ENTER NUMBER AND CIRCLE MIN OR HR.)

a. Inside (your/his/her) home with someone who was smoking tobacco? _____ (min/hr)

b. At work with someone who was smoking tobacco? ______ (min/hr)

c. In a car, bus, van, or other enclosed vehicle with someone who was smoking tobacco? ______ (min/hr)

d. In any other indoor or enclosed location with someone who was smoking tobacco? ______ (min/hr)

B9. During the ***past month***, has anyone, including you, smoked inside your home? (CIRCLE ONE.)

YES . . . . Y
NO . . . . N
DON'T KNOW . . . . DK

B10a. On average for the ***past month***, on how many days did (you/he/she) paint walls, furniture, cars or other objects? (READ CHOICES AND CIRCLE ONE.)

Never 1
1-3 days per month 2
1-2 days per week 3
3-6 days per week 4
Daily 5
DON'T KNOW . . . . DK

B10b. On average for the *past month*, on how many days did (you/he/she) use chemical paint strippers to remove paint? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B10c. On average for the *past month*, on how many days did (you/he/she) remove paint by other methods such as scraping, heat gun or sanding? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B10d. During the *past three months*, on how many days (did you/did he/she) use lead solder to solder pipes, do electronic repairs, or join pieces of stained glass? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B10e. During the *past three months*, on how many days (did you/did he/she) use lead-based oil paint to paint pictures or jewelry? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B10f. During the ***past three months***, on how many days (did you/did he/she) mold lead into fishing sinkers, bullets, or other objects? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B11. During the ***past three months***, on how many days (did you/did he/she) eat fresh fruits or vegetables grown at your home? (READ CHOICES AND CIRCLE ONE.)

Never	1
1-3 days per month	2
1-2 days per week	3
3-6 days per week	4
Daily	5
DON'T KNOW	DK

B12a. How often (do you/does he/she) eat fish caught by you or someone you know? (READ CHOICES AND CIRCLE ONE.)

Never	1 → GO TO B13
Less than once a year	2 → CONTINUE
Less than once a month	3 → CONTINUE
1 to 3 times a month	4 → CONTINUE
1 to 3 times a week	5 → CONTINUE
More than 3 times a week	6 → CONTINUE

B12b. Where were these fish caught? (READ CHOICES AND CIRCLE ALL THAT APPLY)

Ocean	1
Great Lakes	2
Other lakes, ponds, rivers	3
DON'T KNOW	DK

B13. Do you currently work full time or part time at any location away from your home? (CIRCLE "Y" OR "N." INCLUDE WORKING FOR OTHERS, SELF-EMPLOYED, AND VOLUNTEER WORK. INCLUDE THOSE WHO WORK OUT OF A HOME OFFICE IF THEY WORK PART OF THE TIME AWAY FROM HOME.)

YES	Y → CONTINUE
NO	N → GO TO B17a

B14a. On average for the ***past month***, how many hours ***per week*** did (you he/she) work at (your/his/her) primary job? (INCLUDE WEEKS WHERE TIME WAS TAKEN OFF FOR VACATION, SICKNESS, ETC. IF LESS THAN 10 HOURS, ROUND TO THE NEAREST HOUR; IF GREATER THAN 10 HOURS, ROUND TO THE NEAREST 10 HOURS; e.g., 10, 20, 30, 40, 50 HOURS.)

______ hours per week

i. On average, how many of these hours were spent working at home?

______ hours per week

B14b. What kind of business or industry is this? (For example, manufacturing, retail store, government, farm, school.)

____

B14c. What is (your/his/her) job title? (For example, electrical engineer, stock clerk, typist, farmer.)

____

B14d. What activities (do you/does he/she) perform most often as part of (your/his/her) duties at that job? (For example, typing, keeping account books, filing, selling cars, operating printing press, finished concrete.)

____

B14e. (Do you/Does he/she) wear protective clothing while at (your/his/her) primary job? (CIRCLE "Y" OR "N.")

YES . . . . Y → CONTINUE
NO . . . . N → GO TO B14g

B14f. Which types of protective clothing (do you/does he/she) wear while at (your/his/her) primary job? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Gloves 1
Overalls 2
Overcoat (e.g., lab coat; smock) 3
Respirator 4
Other (SPECIFY: ____________________) 5
DON'T KNOW . . . . DK

B14g. While at (your/his/her) primary job, (do you/does he/she) come into contact at least once a week with... (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Saw dust?	1
Road dust?	2
Fiberglass?	3
Silica (sand blasting)?	4
Mine dust?	5
Surface dust in office, classroom, store?	6
Other know type of dust? (SPECIFY: ______________________)	7
Unknown type of dust?	8
NO CONTACT WITH DUST	9

B14h. While at (your/his/her) primary job, (do you/does he/she) come into contact at least once a week with (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Welding fumes?	1
Solder or flux fumes?	2
Plastic fumes?	3
Paint fumes? (include varnish, shellac, etc.)	4
Gasoline or diesel fumes?	5
Other known type of fumes, smoke, gas, or vapors? (SPECIFY; ______________________)	6
Unknown type of fumes, smoke, gas, or vapors?	7
NO CONTACT WITH FUMES, SMOKE, GAS, OR VAPORS	8

B15. Do you have a second job? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B17a

B16a. On average for the ***past month***, how many hours ***per week*** did (you he/she) work at (your/his/her) second job? (INCLUDE WEEKS WHERE TIME WAS TAKEN OFF FOR VACATION, SICKNESS, ETC. IF LESS THAN 10 HOURS, ROUND TO THE NEAREST HOUR; IF GREATER THAN 10 HOURS, ROUND TO THE NEAREST 10 HOURS; e.g., 10, 20, 30, 40, 50 HOURS.)

_______ hours per week

i. On average, how many of these hours were spent working at home?

______ hours per week

B16b. What kind of business or industry is this? (For example, manufacturing, retail store, government, farm, school.)

____

B16c. What is (your/his/her) job title? (For example, electrical engineer, stock clerk, typist, farmer.)

____

B16d. What activities (do you/does he/she) perform most often as part of (your/his/her) duties at that job? (For example, typing, keeping account books, filing, selling cars, operating printing press, finished concrete.)

____

B16e. (Do you/Does he/she) wear protective clothing while at (your/his/her) second job? (CIRCLE "Y" OR "N.")

YES . . . . Y → CONTINUE
NO . . . . N → GO TO B16g

B16f. Which types of protective clothing (do you/does he/she) wear while at (your/his/her) second job? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Gloves 1
Overalls 2
Overcoat (e.g., lab coat; smock) 3
Respirator 4
Other (SPECIFY: ______________________) 5
DON'T KNOW . . . . DK

B16g. While at (your/his/her) second job, (do you/does he/she) come into contact at least once a week with (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Saw dust? 1
Road dust? 2
Fiberglass? 3
Silica (sand blasting)? 4
Mine dust? 5
Surface dust in office, classroom, store? 6
Other know type of dust?
(SPECIFY: ______________________) 7
Unknown type of dust? 8
NO CONTACT WITH DUST 9

B16h. While at (your/his/her) second job, (do you/does he/she) come into contact at least once a week with... (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Welding fumes? 1
Solder or flux fumes? 2
Plastic fumes? 3
Paint fumes? (include varnish, shellac, etc.) 4
Gasoline or diesel fumes? 5
Other known type of fumes, smoke, gas, or vapors?
(SPECIFY: ______________________) . 6
Unknown type of fumes, smoke, gas, or vapors? . . . 7
NO CONTACT WITH FUMES,
SMOKE, GAS, OR VAPORS 8

B17a. Do you attend classes as a student at any location away from your home? (CIRCLE "Y" OR "N." INCLUDE ELEMENTARY AND SECONDARY SCHOOLS, COLLEGES AND UNIVERSITIES, BUSINESS SCHOOL, TRADE AND VOCATIONAL SCHOOLS.)

YES . . . . Y → CONTINUE
NO . . . . N → GO TO B18

B17b. On average for the ***past month***, how many hours ***per week*** did (you/he/she) attend classes as a student? (INCLUDE WEEKS WHERE TIME WAS TAKEN OFF FOR VACATION, SICKNESS, ETC. IF LESS THAN 10 HOURS, ROUND TO THE NEAREST HOUR; IF GREATER THAN 10 HOURS, ROUND TO THE NEAREST 10 HOURS; e.g., 10, 20. 30, 40, 50 HOURS.)

_____ hours per week

B18. FOR CHILDREN LESS THAN 6 YEARS OF AGE, CONTINUE WITH QUESTION B18a. OTHERWISE GO TO QUESTION B19.

a. ***On average***, how many hours ***per week*** does (he/she) spend away from the home, for example, at daycare, in a preschool, or at a neighbor's house? (IF LESS THAN 10 HOURS, ROUND TO THE NEAREST HOUR; IF GREATER THAN 10 HOURS, ROUND TO THE NEAREST 10 HOURS; e.g., 10, 20, 30, 40, 50 HOURS.)

_____ hours per week (IF ZERO, GO TO B19)

b. Where does (he/she) spend this time away from home? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Another home 1
Daycare center, nursery school, or preschool 2
Other school 3
Other (SPECIFY: ______________________) 4

B19. **What methods of transportation did (you/he/she) use to go to work, school, or daycare in the *past six months*? (READ CHOICES AND CIRCLE ALL THAT APPLY.)**

Car, truck, van, or taxi cab	**1**
Bus, trolley bus, or trolley car	**2**
Train, subway or elevated train	**3**
Motorcycle	**4**
Bicycle	**5**
Walk	**6**
Other method (SPECIFY: ________________)	**7**

HEALTH STATUS

B20. Overall, how would you describe (your/his/her) current health? (READ CHOICES AND CIRCLE ONE.)

Good	1
Fair	2
Poor	3

B21. (Have you/Has he/she) ever had any of the following? (READ CHOICES AND CIRCLE "Y" OR "N." IF YES, ASK SUB-QUESTIONS. IF PARTICIPANT IS UNCERTAIN, CIRCLE "N" AND CONTINUE WITH THE NEXT CONDITION.)

			Were you told (you/he/she) had this by a doctor or nurse?	(Do you/ Does he/she) have it now?	How old (were you/was he/she) when the doctor or nurse first told you?
a.	Diabetes?	Y→ N	Y → N	Y → N	________
b.	Neuromuscular disability, such as Polio, Multiple Sclerosis, Muscular Dystrophy?	Y→ N	Y → N	Y → N	________
c.	Asthma, allergies?	Y→ N	Y → N	Y → N	________
d.	Ulcer?	Y→ N	Y → N	Y → N	________
e.	Gastritis?	Y→ N	Y → N	Y → N	________
f.	FREQUENT indigestion?	Y→ N	Y → N	Y → N	________
g.	Any other stomach trouble?	Y→ N	Y → N	Y → N	________
	IF YES, PLEASE SPECIFY: ________				
h.	FREQUENT constipation?	Y→ N	Y → N	Y → N	________
i.	Cirrhosis of the liver?	Y→ N	Y → N	Y → N	________
j.	Fatty liver?	Y→ N	Y → N	Y → N	________

			Were you told (you/he/she) had this by a doctor or nurse?	(Do you/ Does he/she) have it now?	How old (were you/was he/she) when the doctor or nurse first told you?
k.	Hepatitis?	Y→ N	Y → N	Y → N	________
l.	Yellow jaundice?	Y→ N	Y → N	Y → N	________
m.	Nephritis	Y→ N	Y → N	Y → N	________
n.	Kidney stones?	Y→ N	Y → N	Y → N	________
o.	Any disease requiring chemotherapy?	Y→ N	How long ago did (you/he/she) last have chemotherapy? ________		

IF YES, PLEASE SPECIFY DISEASE: ____________________

BASIC HOUSING CHARACTERISTICS

These next questions are about your (house/apartment). Please feel free to ask another member of your household for assistance if necessary.

B22. Is this property actively used as a farm or ranch? (CIRCLE "Y" OR "N.")

YES	Y
NO	N

B23. About when was this building first built? (READ CHOICES AND CIRCLE ONE.)

1990 TO PRESENT	1
1985 TO 1989	2
1980 TO 1984	3
1970 TO 1979	4
1960 TO 1969	5
1950 TO 1959	6
1940 TO 1949	7
1939 OR EARLIER	8
DON'T KNOW	DK

B24. When did (you/he/she) move into this (house/apartment)? (READ CHOICES AND CIRCLE ONE.)

1990 TO PRESENT	1
1985 TO 1989	2
1980 TO 1984	3
1970 TO 1979	4
1960 TO 1969	5
1950 TO 1959	6
1940 TO 1949	7
1939 OR EARLIER	8
DON'T KNOW	DK

B25. In the last six months, have any of the following been performed in this home? (CIRCLE "Y" OR "N.")

	YES	NO
Adding a room	Y	N
Putting up or taking down a wall	Y	N
Replacing windows	Y	N
Refinishing floors	Y	N
Exterior painting	Y	N
Interior painting	Y	N

B26a. Does this (house/apartment) have running water? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B26c

B26b. What is the source of the running water in your house/apartment? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Public or commercial water system . . . . (SPECIFY NAME____________________)	1
Private well	2
Cistern	3
Some other source (SPECIFY: ________________)	4
DON'T KNOW	DK

B26c. Which water source is used ***most often*** (more than half the time) for cooking? (READ CHOICES AND CIRCLE ONE.)

Tap water	1
Bottled water	2
Some other source (SPECIFY: ________________)	3
DON'T KNOW	DK

B26d. Which water source is used ***most often*** (more than half the time) for drinking? (READ CHOICES AND CIRCLE ONE.)

Tap water	1
Bottled water	2
Some other source (SPECIFY: ________________)	3
DON'T KNOW	DK

B26e. Do you use any of the following to treat your water at home? (CIRCLE "Y" or "N" FOR EACH TREATMENT TYPE.)

		YES	NO	DON'T KNOW
i.	Water Softener	Y	N	DK
ii.	Charcoal Filter	Y	N	DK
iii.	Reverse Osmosis	Y	N	DK
iv.	Distilling	Y	N	DK
v.	Other (SPECIFY:__________________________) .	Y	N	DK

B27a. Is there an enclosed garage attached to this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B28

B27b. Where is the attached garage? (READ CHOICES AND CIRCLE ONE.)

Underneath the main living quarters	1
Same level as the main living quarters	2
Somewhere else; (SPECIFY: ________________)	3

B27c. Is there a doorway leading directly from the garage into the living quarters? (CIRCLE "Y" OR "N.")

YES	Y
NO	N

B27d. Are automobiles, vans, trucks or other motor vehicles parked in this attached garage? (CIRCLE "Y" OR "N".)

YES	Y
NO	N

B28. Are any gas powered devices stored in any room, basement, or attached garage in this (house/apartment)? (CIRCLE ONE. DO NOT INCLUDE CARS, VANS, OR TRUCKS. DO INCLUDE MOTORCYCLES, GAS- POWERED LAWN MOWERS, TRIMMERS OR BLOWERS, BOAT ENGINES, ETC.)

YES	Y
NO	N
DON'T KNOW	DK

B29a. Is air conditioning (refrigeration) used to cool this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B30

B29b. Which types of air conditioning units do you use? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Central unit/units	1
Window or wall unit/units	2
Portable unit/units	3

B29c. During which month (do you *usually*/would you) <u>start</u> using air conditioning to cool this (house/apartment)?

During which month (do you *usually*/would you) <u>stop</u> using air conditioning? (CIRCLE THE START AND STOP MONTHS.)

Start Month:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Stop Month:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

B30. Which fuels are used for heating this (house/apartment)? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Gas: from underground pipes serving
the neighborhood 1
Gas: bottled, tank, or LP 2
Electricity 3
Fuel oil, kerosene, etc. 4
Coal or coke 5
Wood 6
Solar energy 7
Other fuel (SPECIFY: ____________________) 8
NO FUEL USED 9
DON'T KNOW . . . . DK

B31. Does this (house/apartment) have a central heating system with ducts that blow air into most rooms? (CIRCLE "Y" OR "N.")

YES . . . . Y
NO . . . . N

B32. During which month (do you *usually*/would you) <u>start</u> using heating devices?

During which month (do you *usually*/would you) <u>stop</u> using heating devices? (CIRCLE THE START AND STOP MONTH.)

Start month:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Stop month:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

B33a. During the months identified in the last question, do you use portable kerosene heaters in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES . . . . Y → CONTINUE
NO . . . . N → GO TO B34

B33b. How many kerosene heaters did you use *last year*? ___________

B33c. How often do you use your kerosene heater ***during the heating season***? (READ CHOICES AND CIRCLE ONE.)

Less than once a month	1
One to three times per month	2
Once or twice a week	3
3-5 times a week	4
More than 5 times a week	5

B34a. ***During the heating season***, is a portable or nonvented gas heater used in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B35

B34b. How many gas heaters? ________

B34c. How often is a portable or nonvented gas heater used? (READ CHOICES AND CIRCLE ONE.)

Less than once a month	1
One to three times per month	2
Once or twice a week	3
3-5 times a week	4
More than 5 times a week	5

B35a. ***During the heating season***, is a wood-burning or coal-burning stove used in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B36

B35b. How many wood or coal-burning stoves? __________

B35c. How often is a wood-burning or coal-burning stove used ***during the heating season***? (READ CHOICES AND CIRCLE ONE.)

Less than once a month	1
One to three times per month	2
Once or twice a week	3
3-5 times a week	4
More than 5 times a week	5

B35d. What is burned in the stove? (READ CHOICES AND CIRCLE ONE.)

Wood	1
Coal	2
Other: (SPECIFY: ____________________)	3

B36a. ***During the heating season***, is a fireplace used in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y → CONTINUE
NO	N → GO TO B37

B36b. How many fireplaces? ________

B36c. How often is a fireplace used ***during the heating season***? (READ CHOICES AND CIRCLE ONE.)

Less than once a month	1
One to three times per month	2
Once or twice a week	3
3-5 times a week	4
More than 5 times a week	5

B36d. What is burned in the fireplace? (READ CHOICES AND CIRCLE ALL THAT APPLY.)

Wood	1
Artificial logs	2
Gas fire	3
Other (SPECIFY:______________________)	4

B37. During the ***past six months*** have mothballs been used in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y
NO	N

B38. During the ***past six months*** have room deodorizers been used in this (house/apartment)? (CIRCLE "Y" OR "N.")

YES	Y
NO	N

B39a. Do you have house pets such as dogs, cats, gerbils, hamsters, rabbits, guinea pigs, or birds? (CIRCLE "Y" OR "N.")

YES . . . . Y → CONTINUE
NO . . . . N → GO TO B40

B39b. How many of these pets are kept indoors most of the time? ________

B39c. How many of these pets are kept outdoors most of the time? ________

B39d. How many of these pets are kept both indoors AND outdoors? ________

FAMILY INCOME

B40. Family income is often used in scientific studies to create groups of people who are similar. We do some analysis of the data using these groups. Please remember that all the data you provide is held in strict confidence.

Approximately what is the gross annual income for all family members in this household? (HAND SHOWCARD TO RESPONDENT.) Please tell me the number on this card. (IF RESPONDENT PROVIDES ANSWER DIRECTLY, CIRCLE NUMBER BELOW.

Less than $9,999	1
$ 10,000 - $ 19,999	2
$ 20,000 - $ 29,999	3
$ 30,000 - $ 39,999	4
$ 40,000 - $ 49,999	5
$ 50,000 - $ 74,999	6
$ 75,000 - $ 99,999	7
$100,000 or more	8
DON'T KNOW	DK
REFUSE	RE

OMB Clearance #: 2080-0053
Expires: 7/31/98

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

TIME DIARY AND ACTIVITY QUESTIONNAIRE

Participant Identification Number

____
(Record ID Here)

INTERVIEWER/TECHNICIAN ID: ____________________

Date Completed: _____/_____/_____

February 16, 1996

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

TIME DIARY AND ACTIVITY QUESTIONNAIRE

==

DESIGNATED PARTICIPANT

(If the participant is less than 10 years old, what is the name of the individual who is providing the answers for the designated respondent?)

Name of Participant____

Completed by____________________________(if other than participant)

Relation to participant______________________________________

Home Phone____________ Date:___/___/___

==

LOCATION DATA (Technician Completed--address/ID label)

State___________ County__________

Census Tract__________Block __________

Street Address____/______
Apt./Space #

City, Zip____/______
Zip code

==

INTERVIEWER/TECHNICIAN ID: ___________________ Date Completed: ____/____/____

==

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

TIME DIARY AND ACTIVITY QUESTIONNAIRE

At the end of each day, take a few minutes to record the time (you/your child) spent in each of the seven listed locations. There is one box for each day of the study. The numbers in the box stand for hours of the day. For example, 5 in the morning is 5:00 a.m. to 5:59 a.m. Complete the box by putting an X through each hour during which (you/your child) spent any time at any of the listed locations. These X's are to help you remember where (you were/your child was) throughout the day so you can estimate the total number of hours and minutes in each location. In the last column, write the total amount of time spent in each place. The numbers in the last column should add up to 24 hours. If the numbers don't add up to 24 hours, review your estimates of time spent in each location and correct errors.

The terms used in the time diary are defined as follows:

- Home: The house or apartment where (you live/your child lives); the location where we are collecting samples.
- Work: A place away from home where (you work/your child works).
- School: A place away from home where (you attend/your child attends) school.
- Transit: Any travel from one location to another, including all travel between such places as home, school, and shopping centers, as well as all other travel on roads, paths, or trails.
- Other: All other places (you spend/your child spends) time besides home, work, school, and in transit between locations.

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 1	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week ____	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
___/___/___	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 1 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 2	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week ____	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
___/___/___	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 2 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 3	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week ____	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
___/___/___	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 3 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 4	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
/ /	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 4 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 5	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
/ /	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 5 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 6	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
Day of Week	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
/ /	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 6 STARTING ON PAGE 6. Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 7 Day of Week ______	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE __/__/__	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 7 STARTING ON PAGE 6.

Total Daily Time Expenditure must add up to 24 Hrs

	Location	Morning	Afternoon	Evening	Early Morning (Night time)	Amount of Time
Day 8 Day of Week ______	Inside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Inside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
DATE __/__/__	Outside at Home	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Work and School	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	Outside at Other	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min
	In Transit	5 6 7 8 9 10 11	12 1 2 3 4 5	6 7 8 9 10 11	12 1 2 3 4	____Hrs ____Min

PLEASE ALSO COMPLETE THE COLUMN FOR DAY 8 STARTING ON PAGE 6.

Total Daily Time Expenditure must add up to 24 Hrs

DAILY ACTIVITY INFORMATION

	1	2	3	4	5	6	7	8
	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /
Please circle "Y" for Yes or "N" for No for questions A1-A11.								
A1. Did (you/your child) pump gas today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A2. Did (you/your child) have gasoline in contact with the skin today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A3. Did (you/your child) spend at least 15 minutes in an enclosed garage <u>with</u> a parked car today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A4. Did (you/your child) have soil or dirt in your yard in contact with the skin today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A5. Did (you/your child) have grass or leaves from your yard in contact with the skin today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A6. Did (you/your child) clean a fireplace or wood stove today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A7. Did (you/your child) start or tend a fire in a fireplace or wood stove today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A8. Did (you/your child) use an outdoor grill or burn wood, leaves, or trash today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A9. Were any tobacco products smoked in the home today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A10. Did (you/your child) take a shower today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
A11. Did (you/your child) take a bath today?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

	1	2	3	4	5	6	7	8
	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /
Please enter the number that answers questions A12-A16.								
A12. How many glasses or cups of water did (you/your child) drink today?	____ # drinks	____ # drinks	____ # drinks	____ # drinks	____ # drinks	____ # drinks	____ # drinks	____ # drinks
A13. How many cigarettes did (you/ your child) smoke today?	____ # cigarettes	____ # cigarettes	____ # cigarettes	____ # cigarettes	____ # cigarettes	____ # cigarettes	____ # cigarettes	____ # cigarettes
A14. How many cigars or pipefuls did (you/your child smoke today?	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls	____ # cigars/-pipefuls
A15. How many times did (you/your child) use smokeless tobacco today?	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times
A16. How many times did (you/your child) wash (your/his/her) hands today?	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times	____ # times
In questions A17-A22, please enter time spent. If the time was less than 1 hour, enter 15 min., 30 min., 45 min., or 1 hour, whichever is closest to time actually spent. If time was greater than 1 hour, round to the nearest hour. Circle either min. or hr.								
A17. (You/your child) traveled on roadways or highways today?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr
A18. (You/your child) spent indoors with someone who was smoking?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr
A19. (You/your child) spent in a vehicle with someone who was smoking?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr
A20. (You/your child) spent swimming in indoor or outdoor pools today?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr
A21. (You/your child) spent using cleaning supplies (cleaners, waxes, polishes) today?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr
A22. (You/your child) spent laying down or sitting on the carpet or rugs **at home** today?	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr	____ min/hr

	1	2	3	4	5	6	7	8
	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /	Day ____ Date / /
In questions A23-26, please enter time spent. If the time was less than 1 hour, enter 5 minutes, 10 minutes, 15 minutes, 30 minutes, 45 minutes, or 1 hour, whichever is closest to time actually spent. If time was greater than 1 hour, round to the nearest hour. Circle either min. or hr.								
A23. (You/your child) spent in an enclosed workshop or garage used as a workshop today?	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr
A24. Doors and windows **at your house** were left open for ventilation today?	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr
A25. (You/your child) spent performing vigorous exercise like digging or other heavy manual labor, running, bicycling, aerobic dancing, playing basketball or soccer today?	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr
A26. (You/your child) spent performing moderate exercise like walking, gardening, working while on your feet, or playing softball or golf today?	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr	___ min/hr
For Technician Use Only	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]	Comp. [ ] Asst. [ ] Do [ ]

OMB Clearance #: 2080-0053
Expires: 7/31/98

NATIONAL HUMAN EXPOSURE ASSESSMENT SURVEY

24-HOUR FOOD DIARY

Participant Identification Number

____

(Record ID Here)

February 16, 1996

HOW TO USE THE 24-HOUR FOOD DIARY

FOR PARTICIPANTS LESS THAN 10 YEARS OLD, A PARENT OR GUARDIAN SHOULD PROVIDE ASSISTANCE, AS NEEDED, IN COMPLETING THE FOOD DIARY.

INSTRUCTIONS

(1) We want you to list all of the foods, beverages, drinking water, and non-prescription medicines or vitamins you or this child eat(s) or drink(s) from midnight to midnight.

(2) Every time you or this child eat(s), write down the name of the meal (breakfast, lunch, dinner, snack).

(3) Then write down on a separate line the (brand/generic) name of every food, beverage, or non-prescription medicine or vitamin that you or this child eat(s) or drink(s).

(4) For food mixtures such as stews or potpies, please write down the major kinds of foods in the mixture. Use the lines immediately below the one on which the name of the mixture is entered. In food mixtures, the component ingredients can be identified, for example—the type of meat in a stew—beef, lamb, venison, etc.

(5) For beverages (including water), write down how many cups or glasses that you or this child drink(s)). Estimate equivalent measures of water or other beverages taken from a fountain or large container. Don't forget your second and third cups of coffee or tea, or refills at a restaurant.

NHEXAS FOOD DIARY FOLLOW-UP - DAY 1 **[NOTE: THE 24-HOUR FOOD DIARY CONTAINS SIMILAR PAGES FOR EACH DAY ON WHICH DUPLICATE DIET SAMPLES ARE COLLECTED.]**

START DATE:	TIME:		FOR INTERVIEWER USE ONLY		
END DATE:	TIME:				
Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	Portion Size	Cooking Method	Non-Retail Source
Lunch	EXAMPLE: CHEESEBURGER	1			
	EXAMPLE: SALAD WITH LETTUCE AND TOMATOES	1			
	EXAMPLE: WATER	2 glasses			

CONTINUE ON BACK IF YOU HAVE MORE FOODS TO LIST.

NHEXAS FOOD DIARY FOLLOW-UP - DAY 1

			FOR INTERVIEWER USE ONLY		
Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	Portion Size	Cooking Method	Non-Retail Source

NHEXAS FOOD DIARY FOLLOW-UP - DAY 2

START DATE: TIME: END DATE: TIME:			FOR INTERVIEWER USE ONLY		
Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	Portion Size	Cooking Method	Non-Retail Source
Lunch	EXAMPLE: CHEESEBURGER	1			
	EXAMPLE: SALAD WITH LETTUCE AND TOMATOES	1			
	EXAMPLE: WATER	2 glasses			

CONTINUE ON BACK IF YOU HAVE MORE FOODS TO LIST.

NHEXAS FOOD DIARY FOLLOW-UP - DAY 2

			FOR INTERVIEWER USE ONLY		
Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	Portion Size	Cooking Method	Non-Retail Source

NHEXAS FOOD DIARY FOLLOW-UP - DAY 3

START DATE:	TIME:		FOR INTERVIEWER USE ONLY		
END DATE:	TIME:				
Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	Portion Size	Cooking Method	Non-Retail Source
Lunch	EXAMPLE: CHEESEBURGER	1			
	EXAMPLE: SALAD WITH LETTUCE AND TOMATOES	1			
	EXAMPLE: WATER	2 glasses			

CONTINUE ON BACK IF YOU HAVE MORE FOODS TO LIST.

NHEXAS FOOD DIARY FOLLOW-UP - DAY 4

Meal	PLEASE LIST ALL FOODS, BEVERAGES, AND VITAMINS THAT YOU OR THIS CHILD EAT(S) OR DRINK(S) AND HOW MANY OF EACH ITEM	How Many	FOR INTERVIEWER USE ONLY Portion Size	Cooking Method	Non-Retail Source