

The Children's Total Exposure to Persistent Pesticides and Other Persistent Organic Pollutants (CTEPP) Study

Collection of Personal Interview Data

Battelle
Columbus, OH 43201
Contract No. 68-D-99-011

Standard Operating Procedure

CTEPP-SOP-2.21

Title: Collection of Personal Interview Data

Source: Battelle

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

Notice: *The U.S. Environmental Protection Agency (EPA), through its Office of Research and Development (ORD), partially funded and collaborated in the research described here. This protocol is part of the Quality Systems Implementation Plan (QSIP) that was reviewed by the EPA and approved for use in this demonstration/scoping study. Mention of trade names or commercial products does not constitute endorsement or recommendation by EPA for use.*

STANDARD OPERATING PROCEDURE (SOP)
FOR THE COLLECTION OF PERSONAL INTERVIEW DATA

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

Approved by: _____ Date: _____

Approved by: _____ Date: _____

Approved by: _____ Date: _____

1.0 Scope and Applicability

This standard operating procedure (SOP) describes the general method for collecting personal interview data from the child's parent (and the day care center staff, if applicable).

2.0 Summary of Method

Study participants, both parents and day care center teachers, will be interviewed by the project staff at a scheduled appointment time. Survey instruments to be completed through the interviews are:

- Pre-monitoring Questionnaire (Forms #4 and #5): to be completed in person by the field staff.
- Post-monitoring Questionnaire (Forms #6 and #7): to be completed in person by the field staff.
- House/Building Characteristics Observation Survey (Forms #2 and #3): Forms #2 and #3 are observation surveys to be completed by the field staff. The time required for the respondent is minimal (only when the project staff needs to clarify things with the respondent).

3.0 Definition

Not applicable.

4.0 Cautions

- 4.1 Field staff should be sensitive to the participant's concerns and needs.
- 4.2 Field staff should be courteous and conduct themselves professionally.

5.0 Responsibilities

- 5.1 The field staff will follow this SOP to collect the personal interview data.

6.0 Apparatus and Materials

6.1 Materials.

6.1.1 Pre-monitoring Questionnaire (Forms #4 and #5).

6.1.2 Post-monitoring Questionnaire (Forms #6 and #7).

6.1.3 House/Building Characteristics Observation (Forms #2 and #3).

6.1.4 Questionnaire Instructions.

6.1.5 100 ft measuring tape.

6.1.6 Globe Positioning System (GPS).

7.0 Procedure

7.1 Ask the participant if it is a good time for the interview.

7.2 Find a place where staff can sit down and talk with the participant.

7.3 Begin the interview. Follow the Questionnaire Instructions for each data form.

7.4 General protocol

The success of a survey research project depends primarily on the interviewer's skills and commitment to the survey research project. The interviewer is the link between the researcher seeking information and the person who provides it. The interviewer is the "eyes and ears" of the research team. Only when all the interviewers working on the same survey project have learned to ask the questions in the same way can the interviews be combined to give a true picture of the experiences of the people questioned. It is critical that interviewers be fully trained in interviewing techniques and are thoroughly familiar with the survey questionnaire.

7.4.1 Ethics and role of the interviewer

The success of a survey research project also depends on how well interviewers carry out their ethical responsibilities to the research organization and to the survey respondent. An interviewer should:

7.4.1.1 Always follow the survey study instructions

Only when all the interviewers working on the same survey project have learned to ask the questions in the same way can the interviews be combined to give a true picture of the experiences of the people questioned.

7.4.1.2 Never fictionalize responses

Problems may occur when, after finishing the interview, the interviewer discovers that certain questions were omitted or when the interviewer is instructed to take verbatim answers but abbreviates words and phrases and then fills in the missing portions immediately after the interview is over. The temptation for the interviewer to make up answers for the omitted questions or to fill in the missing portion with his/her own words may be strong.

Fictionalizing responses will jeopardize the integrity and validity of the study. It is a serious violation of interviewer's ethics and will not be tolerated by Battelle. If staff forget to ask certain questions, contact the respondent again as soon as possible and collect the missing information.

7.4.1.3 Probe fully where needed

There is a tendency for interviewers to become less thorough in probing for complete, adequate, and valid responses as they become fatigued, bored, or lose their initially curiosity.

7.4.1.4 Do not bias responses

Interviewers can bias the responses by the tone of voice used in asking the question, by gestures, and by facial expression, as well as by deviating from the required wording of the question or structuring of the answers. If an interviewer feels that he/she has a strong emotional attachment to the issues being studied, he/she should discuss the situation with the Field Team Leader (FTL) immediately. If an interviewer happens to know the respondent personally, the situation may also create biases. The interviewer should not conduct the interview and should discuss the situation with the FTL immediately.

7.4.1.5 Report possible problems in the survey instrument

Although the survey instrument has been tested before it is fully implemented, there may be some problems after the survey instrument is implemented. Interviewers may discover that the wording of a question or the structured answer choices of a particular question may be highly biasing in its effect. It is the interviewer's ethical duty to report this situation or any other problems to the FTL.

7.4.1.6 Do not harm the respondent

An interviewer may unknowingly harm the respondent in many ways. Harm can be done to the respondent by leaking information which could be used against her/him, or by reacting negatively to any responses. In some situations it may be harmful to the respondent to be seen with the interviewer.

7.4.2 Interviewer characteristics

Two important characteristics of a good interviewer are:

7.4.2.1 Neutral

The tone of voice may influence the way a respondent answers a question. The best tone is a neutral tone. If staff react to an answer in a judgmental or amused tone, the way

subsequent questions are answered may be influenced or may be jeopardized the completion of the interview by antagonizing the respondent.

7.4.2.2 Consistent

The interviewer must make sure that each respondent interviewed hears the questions exactly as they are written in the questionnaire. Only when questions are asked in the same way, can the interviews (data) be combined to give a true picture of the experiences, thoughts, actions, and feelings of the people questioned. For study results to be valid, all interviewers need to document clearly and completely what is heard during the interview.

7.4.3 Confidentiality

It is important for respondents to feel that they can speak freely and honestly. Interviewers must ask some questions that they would not think of asking a close friend, questions which may be thought of as "too personal." Respondents are willing to answer these questions, and even to offer information that they would not tell a close friend or relative. Interviewers must assure respondents that all information they provide will be treated confidentially. This means:

- No names are ever associated with the final data package. Names are removed before the data are processed.
- Interviewers do not discuss data or personal observations about respondents with anyone not associated with the project.
- Interviewers are not allowed to conduct interviews with friends, relatives, or acquaintances.
- Data are analyzed in groups (aggregate format).
- Data are published in the form of statistics only.
- Participant information is kept in a locked file when not in use and destroyed after the study is completed (as approved by the client).

Battelle's Standard Procedures for Maintaining Confidentiality:

Each study staff member must sign an Assurance of Confidentiality.
Subject's contact and identification information (names, addresses, phone numbers, SSN, etc.) is kept separately from the questionnaire data.
No identifying information will be recorded on the questionnaire (except for special study requirements).
All study-related computer data files are password-protected.
All hard copy (paper) contact and identification information is stored in a locked file cabinet. Only authorized study staff have access to the contact information.
Once the study is completed, the identifying information will be destroyed.

7.4.4 Battelle Interviewing Protocol

7.4.4.1 Wording

Ask questions exactly as they are written. Effort has gone into developing questions that are clear, neutral, and likely to gather the information needed for the study. Each respondent should answer exactly the same questions. Do not reword the questions unless instructed to do so.

7.4.4.2 Completion

Read the entire question as written even if the respondent interrupts to answer. Explain politely that you must complete the question.

7.4.4.3 Order

Ask questions in the order in which they appear in the questionnaire. The questionnaire is designed in a logical progression. Even when respondents volunteer information that will be asked for later, maintain control of the order of questions by saying "we will get to that a little later." If staff forget to ask a

question or a portion of the question, return to it immediately. (**NOTE:** This should not be a problem with a telephone interview.)

7.4.4.4 Tone

The tone of your voice may influence the way a respondent answers a question. If staff react to an answer in a judgmental or amused tone, these may be influencing the way subsequent questions are answered, or even jeopardize the completion of the interview by antagonizing the respondent.

7.4.4.5 Phrasing

Tailor the phrasing of the questions to reflect what is learned -- the name and sex of the respondent, names of specific drugs or conditions. When a word is written in capital letters inside parentheses, it indicates the need for substituting more specific information.

Example:

Question: Was the (DISEASE) diagnosed by a doctor?

- Say the actual name of the disease in place of (DISEASE).

Statements in all capital letters are instructions for the interviewer and are not to be read to the respondent.

Example:

Question: Was the (DISEASE) diagnosed by a doctor? IF YES, what is the doctor's name?

RECORD THE DOCTOR'S NAME HERE:

- Staff should not read "IF YES" or "RECORD THE DOCTOR'S NAME HERE."

7.4.4.6 Lists of responses in all capital letters are not to be read to the respondent.

Example:

Question: What is the highest grade or level of schooling that you have completed?

Answer Categories:

LESS THAN 8 YEARS	01
8-11 YEARS	02
12 YEARS OR COMPLETED HIGH SCHOOL	03

POST HIGH SCHOOL TRAINING OTHER THAN 4 YEAR COLLEGE	04
COLLEGE OR HIGHER	05

- Staff should not read the above answers.

7.4.4.7 Active listening

Active listening tells the respondent not only, "I hear you," but, "I understand what you are saying." To listen actively is to hear with "eyes and ears" and insight. To listen actively is to be able to respond appropriately.

7.4.4.8 Restatement/reflection

One of the most commonly used interviewing technique is restatement/reflection. This technique acts as a listening check and allows the respondent to know how his/her message was interpreted. The respondent's message may include verbal content and feelings. The technique of restating or reflecting the respondent's verbal content is to rephrase in one's own words what the respondent has said and repeat it back to the respondent. The most effective way of restating seems to be to restate part of the respondent's message, the part to be the most significant and worth letting the respondent hear again. This enables the respondent to "re-listen" to his/her own logic, possible biases, and assumptions. Staff can also be sure of getting the right information.

This technique should have a positive effect on the respondent because it demonstrates that the interviewer is listening and trying to understand what is being said. However, if this technique is overdone, it could affect the flow of the interview.

7.4.4.9 Nonverbal responses

Nonverbal responses such as nodding, "uh-huh," eye contact, looking alert, the way the furniture is arranged for the interview, firm handshake, and so on communicate different levels of interest, understanding, and acceptance.

7.4.4.10 Probing

Probing is a technique used by the interviewer to obtain more complete information from the respondent. This technique must be used with skill and caution to avoid introducing bias or antagonizing the respondent. When the interviewer decides that an answer is inadequate, he or she will motivate the respondent to answer more fully by using one of the following neutral probes which seem to be part of a normal conversation:

Expression of Interest and Understanding. Comments such as "uh-huh," "I see," or "yes" indicate to the respondent that the interviewer is listening, is interested, and expects to hear more.

Expectant Pause. Silence conveys to the respondent that the staff are expecting to hear more in answer to the question.

Repeating the Question. When the respondent does not seem to understand the question, misinterprets it, is indecisive, or strays from the subject, it is often useful to repeat the question.

Repeating the Reply. Simply repeating what the respondent has said often stimulates further thought.

Neutral Questions or Comments. The following probing questions have been used with success:

Examples of Probes to Clarify:

"What do you mean exactly?"

"What do you mean by . . .?"

"Could you please explain that a little? I don't think I quite understand."

Examples of Probes for Specificity:

"What in particular do you have in mind?"

"Could you be more specific about that?"

"Tell me about that. What/Who/How/Why/When. . .?"

Examples of Probes for Relevance:

"I see. Well, let me ask you again . . . (REPEAT EXACT QUESTION)?"

"Would you tell me how you mean that?"

Examples of Probes for Completeness:

"What else?"

"What else can you think of?"

"What other reason/things/example, etc., can you think of?"

Probing Rules. To help avoid biasing the respondent's replies to probing, follow these rules: Don't ask if a respondent means **this or that**, because it suggests that one of two answers is correct, even though there may be several possible answers.

Do not explain words in a question unless the specifications instruct to do so.

Respondents may ask staff to explain words in a question or parts of a question. Staff cannot offer their own explanation. Let the respondent know that he/she is free to answer with whatever comes to mind or refer to question-by-question specifications.

When to Stop Probing. Stop when as much information has been obtained from the respondent as possible and when staff have encouraged the respondent to clarify the meaning of his or her own words. However, if at any time the respondent becomes irritated or annoyed, stop probing immediately. Otherwise, the respondent may refuse to complete the interview.

7.4.4.11 Skip patterns

There are many skip instructions throughout the questionnaire. The skip instruction says to skip a question or a group of questions depending upon the response to the question where the skip instruction is found. In a CATI interview, the skip patterns are controlled by the computer program. The interviewer does not have to worry about which question is next. This is particularly helpful when very complicated skips are used in the survey instrument.

Whether staff are using a CATI instrument or a paper questionnaire, staff need to be very familiar with the entire survey instrument, including skip patterns. Practice (by reading the questionnaire over and over again) is the most effective way to master the skip patterns. Skip instructions may appear in several formats. The following are examples of skip instructions.

A skip instruction may appear between the dotted lines on the answer category/code line(s). The skip in parentheses may instruct staff to skip to another section of the questionnaire or to a later question in the same section of the questionnaire. It may also appear in a table. For example:

F9.	During that period, did <u>you</u> (or any of the <u>children</u> listed) have (READ DISEASES)?	YES	1
		NO	(NEXT DISEASE) 2
		RF	(NEXT DISEASE) 7
		DK	(NEXT DISEASE) 8

If the respondent answers "YES," go on to the next question (F10). If the answer is "NO" or "RF" or "DK," then skip questions F10, F11, and F12 and ask about the next disease.

D1.	Have you worked at a job outside the home for six months or longer?	YES	1
		NO	SECTION E 2
		RF	SECTION E 7
		DK	SECTION E 8

If respondent answers "YES," go on to the next question. If the answer is "NO," "RF," or "DK," skip to Section E.

7.4.4.12 No rushing

A good interviewer must be patient. It takes time for a person to think through a difficult question and come up with an answer. If the respondent cannot finish the interview (health problem, unexpected interruption, etc.), schedule another time to complete the interview. Finally, throughout the interview, the interviewer should be aware of fatigue or other discomfort developing in the respondent and intervene appropriately.

7.4.4.13 Dealing with the "don't know" or "don't remember" responses

Very often after the interview is well under way, the response to a question is "I don't know" or "I don't remember." Staff should not regard this as a sign of resistance from the respondent. Studies have suggested that most of those responses are merely an expression of modesty, tentativeness, or cautiousness with which many people preface an answer. In many cases the "don't know" or "don't remember" responses could be translated into this response: "Give me a moment to think." The most successful tactic in this situation is to allow a moment's silence and show by expression that staff are assuming that the respondent is thinking. If this does not bring results, say "I realize that the question might be difficult to answer without some careful thought." Staff can supply some cues in an attempt to aid the respondent's memory.

The "I don't know" answer may mean a number of things. For example:

- The respondent **doesn't understand** the question and says "I don't know" to avoid saying that he or she doesn't understand.

- The respondent is **thinking about the question** and says "I don't know" to fill the silence and take time to think.
- The respondent may be **trying to evade** the issue because he or she feels uninformed, or is afraid of giving a wrong answer, or views the question as too personal.
- The respondent **really don't know** the answer to the question.

Try to decide which of the above possibilities is most likely. If staff suspect that the respondent doesn't seem to understand the question or is taking time to think, repeat it and allow some more time for thought. Reassure the respondent who seems to be evading the question by saying, "There really is no right or wrong answer to these questions. Just do the best you can."

Sometimes the respondent may be discouraged to answer a question which asks for some factual or quantitative information such as, "About how many hours per week do you watch TV?" To encourage the respondent, say, for example, "I don't have to know exactly. What is your best guess?"

To help the respondent remember his/her past experience, point out some significant dates or events occurring at the relevant time such as, "It was before your 30th birthday," or "It was during the Labor Day weekend," or "That was the year Jimmy Carter was elected President of the United States (1977)." By reviewing some of the objective facts about a certain situation, the interviewer often can stimulate the respondent's memory of his/her experiences in that situation.

7.4.4.14 Dealing with the refusals

Sometimes, in spite of best efforts, a respondent will refuse to participate. Experience will help avoid refusals and lessen disappointment when they happen. There are a few techniques that have been proven useful in minimizing permanent refusals:

- Be polite.
- Respect the priorities of the respondent.
- Emphasize his/her importance to the study.
- Explain that all information will be kept confidential.
- Explain that he/she cannot be replaced.

- Stress staff flexibility about scheduling the interview (but do not schedule a time when staff cannot work).
- Explain the importance of the study.
- Explain that he/she represents many others in the community (especially for controls).
- Provide the name of the FTL whom he/she can call to verify the purpose of the interview.
- Tell the respondent that he/she can refuse any individual questions he/she does not wish to answer.

When a respondent refuses, **"leave the door open for another contact at a later time."** Refusal conversion is part of the standard procedures used by Battelle to assure a high completion rate for each study. However, the needs and instructions for refusal conversion may vary depending on the requirements of each study. If after all efforts the respondent still refuses to participate in the study, thanks the respondent for his/her time and hang up the phone.

7.4.4.15 Dealing with the compulsive talker

The use of closed questions will minimize the chances of a compulsive talker to launch into his/her monologue. Keep control of the entire interview. Do not allow the respondent to distract or take control of the interview. Staff may legitimately and very tactfully intervene, using the appropriate probing techniques, during the respondent's lengthier answers to refocus the attention on the heart of the original question. The challenge here is to provide cues to move on in the interview without alienating the respondent in the process. Staff can tell the respondent, "That's interesting. I would like to talk to you more about that but I need to finish this survey first. We can talk more after we finish the interview." **An interviewer should not ask the respondent any questions that are not relevant to the study.**

7.4.4.16 Dealing with the non-talker

Sometimes, due to nervousness, disinterest, or other reasons, staff may confront a respondent who provides little or no elaboration when answering questions and makes it difficult to conduct the interview in a well-paced, moving pattern. When dealing with the non-talker, appropriate probing techniques should be used to stimulate the respondent's answers (refer to examples in the Probing Section

7.4.4.10). If staff detect nervousness in the early stages of the interview, spend more time on rapport-building than might generally be necessary.

7.4.4.17 Dealing with the angry or hostile respondent

Dealing with anger or hostility is one of the greatest challenges to interviewers, and the difference between those who deal effectively with anger and those who "blow it" is **emotional control**. The worst response of the complaint-bearing individual is anger or retaliation. Initial response to anger should be one of calm neutrality yet sincere interest. Allow the respondent to rant on, registering his/her complaints, **uninterrupted**. To intervene or defend oneself at the outset is to run the risk of escalation. Few people will continue attacking or arguing with a reasonable, receptive, and empathic listener.

Once the respondent has finished, the response should be one of clarification. Use the appropriate probing techniques to gather the information to understand the nature of his/her anger or complaint. It is very important to gather all the facts as the respondent sees them. Staff can be so busy planning a defensive response that staff actually stop actively listening to what is being said. Do not be afraid to confront his/her viewpoints if it appears that they are founded upon incomplete or distorted information, once the problem is understood.

In summary, the target of anger usually is the interviewer, a third party, or a group or philosophy with which staff are associated. If the anger is directed at you personally, employ the basic tactic of remaining calm, probing for understanding and clarity, and allowing the interview to serve as a release valve. When the anger is directed at a third party with whom staff are associated, use the basic interviewing tactics and **avoid "taking sides."** Staff must maintain control of emotions if the respondent is to gain control of his/her emotions. If there is no way that to communicate with the respondent under such circumstances, staff arrange for another interviewer to contact the respondent on a different day.

7.4.4.18 Dealing with the anxious respondent

When interviewing an obviously nervous or anxious respondent, provide him/her with an especially thorough orientation. Outline clearly the flow of the interview, the basic topics to be covered, the rationale for covering them, and the ultimate uses of the data obtained. Answer the respondent's questions if he/she has any. A relaxed state can often be contagious. If staff are relaxed, the respondent is more likely to be relaxed too.

7.4.4.19 Dealing with the crying respondent

Crying usually occurs when the respondent is thinking of something that is very distressing to him. This may be the illness or death of a loved one, a threatened loss, or an extremely frustrating situation in his/her own life, or the respondent's concern about his/her illness and its possible consequences. It is natural for the interviewer to feel uncomfortable when the respondent begins to cry during an interview. Staff should wait patiently, allowing the respondent to cry. By using a kindly remark (such as "I understand how you feel"), staff can convey to the respondent the acceptance and understanding of the crying.

Remember not to introduce a new question until the respondent has fully expressed himself/herself and regained control. Such understanding behavior goes a long way toward establishing an effective relationship.

7.4.4.20 Dealing with silences

There are many reasons for prolonged or repeated silences. One common reason is faulty techniques on the part of the interviewer, or failure to establish a relationship (lack of rapport in the beginning). Other reasons include: the discomfort of the respondent is overlooked or ignored, the question is too complex, too many interruptions on the part of the interviewer, or the respondent has been offended by tactless remarks or a lack of consideration on the part of the interviewer. More practice will enable staff to avoid making such technical mistakes.

Brief silence on the part of the respondent should not cause the interviewer to feel uneasy. The pause may reflect the respondent's attempt to recall a fact. The interviewer's proper behavior is simply to wait expectantly. Nonverbal expression may be used to indicate that the respondent should continue. To break the silence, staff may help the respondent resume by using nonspecific comments like "You were telling me about.....," or "Can you tell me more?"

7.4.4.21 Dealing with the respondent's questions

A respondent may ask the interviewer many questions related to the study or not. Proper responses to the respondent's questions will greatly facilitate the interview process. Refer to study brochures for answers of some commonly asked questions. Staff should write down the questions and ask the Field Team Leader to answer the questions when responses are not known.

Occasionally, a respondent may ask you personal questions. Some may inquire whether staff are married or have children. There is no reason to avoid such questions as long as staff feel comfortable about answering them. Some respondents may ask questions in a challenging or aggressive manner, often in response to a personal question directed to them. For example, when one inquires about a respondent's reaction to a death, he/she may retort "How would you feel?" or "Did you ever lose a child?" Such questions can be answered honestly by saying "I would be very upset" or "No, I haven't." The interviewer may also be challenged in a similar way with regard to smoking or drinking, usually because the respondent feels accused. "Do you smoke?" is a common rejoinder. A brief honest answer is the best.

7.4.5 Coding conventions

Battelle's conventions are that the letters DK and the codes 8, 98, 998, 9998, etc. (depending on the number of coding boxes) mean "don't know." Any part of a date can be a 98, for example: November, unknown day, 1944 would be coded as 11/98/1944. In general don't easily accept "don't knows," and probe or use legitimate cues to help respondents give answers. A best guess is usually better than a "don't know."

Numbers like 9, 99, 999, etc. mean the data are missing. In the case of an interviewer-administered questionnaire, 9s would be interpreted to mean that the interviewer did not fill in or code a response and there was no way to trace the information. This might be unavoidable, for example, if the patient died or was lost to follow-up. Prompt, thorough editing of questionnaires should prevent this occurrence.

Numbers like 7, 97, 997, etc. are used for refusals. The acronym "RF" can be written on a line to mean "refused".

7.4.6 Pre-interview preparation

7.4.6.1 Check with the study supervisor for any special instructions for the day.

7.4.6.2 Make sure staff have all the items needed before starting the interview.

7.4.7 Post-interview edit

After staff complete the interview, quickly go through the entire questionnaire and check for any missing data or unclear items. Clarify with the participant at the sampling site before leaving if possible; otherwise, clarify by calling the participant as soon as possible.

8.0 Records

All scheduling records and paper documents will be kept in the project folders. Electronic files will be stored in the scheduling folders and archived on a CD ROM after the project is completed. Subject identification files will be stored in a secured file cabinet. All electronic files will be protected by passwords. Only authorized project personnel will be allowed to access the files. All records will be archived in a secure room for three years after the completion of the study.

9.0 Quality Control and Quality Assurance

The completed questionnaires and data forms will be reviewed and verified by the Field QA Officer or designee, the Field Team Leader, and the Task Order Leader through internal field audits and quality control audits.

10.0 References

- 10.1 J. C. Chuang, P. J. Callahan, C. W. Lyu, Y.-L. Chou, and R. G. Menton, "Characterization of Polycyclic Aromatic Hydrocarbons Exposure Among Children of Low-Income Families from Inner Cities and Rural Areas." EPA/600/R-98/163a (Volume I), EPA/600/R-98/163b (Volume II), and EPA/600/R-98/163c (Volume III), 1999.
- 10.2 J. C. Chuang, C. Lyu, Y-L Chou, P. J. Callahan, M. Nishioka, K. Andrews, M. A. Pollard, L. Brackney, C. Hines, D. B. Davis, and R. Menton, "Evaluation and Application of Methods for Estimating Children's Exposure to Persistent Organic Pollutants in Multiple Media." EPA/600/R-98/164a (Volume I), EPA/600/R-98/164b (Volume II), and EPA/600/R-98/164c (Volume III), 1999.