

The Arizona Border Study

*An Extension of the
Arizona National Human Exposure Assessment Survey (NHEXAS) Study
Sponsored by the Environmental Health Workgroup of the Border XXI Program*

Quality Systems and Implementation Plan for Human Exposure Assessment

The University of Arizona
Tucson, Arizona 85721

Cooperative Agreement CR 824719

Standard Operating Procedure

SOP-UA-D-48.0

Title: Coding: Border Supplement

Source: The University of Arizona

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

Coding: Border Supplement

1.0 Purpose and Applicability

This procedure defines the coding strategy for the Border Supplement Questionnaire. This questionnaire was developed for use in NHEXAS, the Border Study, and other Health and Environment Projects.

2.0 Definitions

- 2.1 **BORDER STUDY** : An alias for "Total Human Exposure Arizona: A comparison of the border communities and the state" conducted in Arizona by the University of Arizona/Battelle/Illinois Institute of Technology consortium.
- 2.2 **CODE, GLOBAL**: A set of standard codes used in data within the project designating the status of a data field in three cases: datum refused, datum non-applicable, and datum missing.
- 2.3 **HEALTH AND ENVIRONMENT PROJECTS (or H & E)** : An umbrella title for all projects funded to M. D. Lebowitz and/or M. K. O'Rourke (or their designees) which examine purported or real relationships among environmental factors and any aspect of human health.
- 2.4 **HRP SITE**: The **Health Related Professions** building, located at 1435 North Fremont Avenue; Tucson, AZ 85719. This is an annex of the Arizona Prevention Center and the primary site of NHEXAS Arizona.
- 2.5 **NHEXAS Arizona**: Acronym for **National Human EXposure Assessment Survey**, a research project conducted in Arizona by the University of Arizona/Battelle/Illinois Institute of Technology Consortium.

3.0 References

Teleform 5.0, Copyright 1991-1996 by Cardiff Software, Inc., San Marcos, CA.

4.0 Discussion

The Border Supplement Questionnaire is a scannable form. The questionnaire will be completed by both the subject and the field technician, QA checked by the interviewer/technician and office staff and scanned into the database.

The OMB approved questions were formatted into a scannable form using the Teleform program package and following procedures outlined in SOP # UA-D-30.x. This package has a dictionary feature and a feature that prints out the characteristics of each created form.

The overall coding scheme will follow SOP# UA-D-31.x: Global Coding for Scanned Forms. The data will be stored as flat ASCII files and re-coded according to EPA's coding scheme when it is ready to be submitted to EPA.

A final version of the Border Supplement Questionnaire form is presented in the attached Appendix A. A description of all fields and variables may be found in UA-D-49.x Appendix B. Field descriptions contain the name of the field on the form, the variable name, the object id attributes, the constraint level for recognition of the code, the length of the field and the type of the field (i.e., hand writing recognition, and automated Dictionary Correction, etc.).

Special Coding lists will be developed as needed to accommodate unanticipated responses. Such coding lists will be attached to each of the appendices as generated. As of this printing no coding lists are needed for the Border Supplement Questionnaire.

5.0 Responsibilities

The Project Data Coordinator is responsible for creating the forms, defining the databases and writing the coding instructions for the Border Supplement Questionnaire form.

6.0 Materials and Reagents

- 6.1 Codes are to be written with a black felt tip pen only.
- 6.2 Questionnaires are put into a batch once they are coded and recorded on the Batch Description and Custody Record.
- 6.3 At this time there are no Coding Lists needed for this questionnaire.
- 6.4 Networked Computer Workstation that can access FoxPro.
- 6.5 Microsoft FoxPro Professional Edition version 2.6, Copyright 1989-1993 Microsoft Corporation.

7.0 Procedural Steps for Coding of the Border Supplement Questionnaire

7.1 Criteria for Using Field-Dependent Global Codes

7.1.1 When to Code Data Field as Refused (Code = 055)

- (a) Subject has crossed out question or field technician has indicated that subject refused the question.
- (b) Other source(s) indicate(s) that the question, physical form, or questionnaire was refused.

7.1.2 When to Code Data Field as Non-Applicable (Code = 088)

- (a) Field technician has written "N/A" on the question, physical form, or questionnaire.
- (b) Sample cannot be taken due to the subject's particular situation. For example, no street name exists for a residence.

7.1.3 When to Code Data Field as Missing (Code = 099)

- (a) The sampler, questionnaire, or datum should have been taken, administered, or gathered according to the standard operating procedure, but was not.
- (b) The sampler or questionnaire was lost prior to data entry.
- (c) The sampling technique or question was determined to be irrevocably flawed.

7.2 Alpha-Numeric Fields

In all cases, the entire field on data entry screen is filled with X 's for refused, Y 's for non-applicable, or Z 's for missing.

7.3 Quality Control

The Project Data Coordinator ensures global coding consistency throughout all project working databases through the quality assurance checks outlined in SOP# UA-D-26.x.

7.4 Corrective Actions

Any discovered inconsistencies in global coding will be addressed and resolved by the Project Data Coordinator.

- 7.5 For coding lists that are computerized.
At this time no coding lists are needed.

8.0 Records

Inclusions:

Appendix A. Border Supplement Questionnaire

Appendix A. Border Supplement Questionnaire

HHID	F.S.	IRN #
<input type="text"/>	<input type="text"/>	<input type="text"/>

FOLLOW UP SUPPLEMENT

Arizona Border and Children's Pesticide Studies

FIRST Name (ONLY):

Date of Completion:

<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>
MO		DAY		YR

INSTRUCTIONS

- Please use the **black, felt tip pen** provided in the notebook when you complete this questionnaire.
- Please follow the special guidelines typed in *bold italics*. They tell you to either *Continue* to the question below, or to *GO TO* a given question.
- Please answer questions printed on a white background only. Shaded areas are for office use only.
- Multiple Choice Questions:** Please fill in the appropriate bubble(s) (○) that appear to the left of each response.
For example: How old is the puppy? *Fill in ONE bubble.* ○ 1 week ● 2 weeks ○ 3 weeks

Please shade bubbles like this: ● and *not* like this: ✗

- Open Ended Questions:** Please write your answer on the line(s) or in the box(es) provided. Please write your numbers in the boxes using a block style without touching the sides of the boxes.

For example:

For example: How old is the puppy? 2 week(s)

- If You Make a Mistake:** For multiple choice, cross out the incorrect answer(s). For open-ended questions, cross out the incorrect value(s) and write the correct value(s) above or beside the boxes.

For example: How old is the puppy? *Fill in ONE bubble.* ✗ 1 week ● 2 weeks ○ 3 weeks

For example: How old is the puppy? 15 week(s)

- If you wish to not answer a question, then please draw a line through it, *but not through the answer space*.

For example: How old is the puppy? week(s)

All data gathered in this questionnaire is kept strictly confidential. *Thank you for your time and support!*

Public reporting burden for this collection of information is estimated to average 30 minutes per response, and to require 0 hours of recordkeeping. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503. OMB Clearance # 2080-0053 Expires: 06/31/98

Follow Up Supplement

63022

Appendix A (Continued). Border Supplement Questionnaire

IHID FS IRN

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Follow Up Supplement

1. How often do you cross the border between Mexico and the United States?

Read choices and fill in ONE bubble.

- ☐ 1. Never or less than once a year.
☐ 2. One to several times each year.
☐ 3. About once per month.
☐ 4. About once per week.
☐ 5. More than once per week.

2. Do you use any of the following items from Mexico? *Fill in the first circle for yes or the second circle for no.***Chemicals:**

YES NO N M

Gasoline ☐ ☐ ☐ ☐Diesel Fuel ☐ ☐ ☐ ☐Indoor Paint ☐ ☐ ☐ ☐Outdoor Paint ☐ ☐ ☐ ☐Indoor Pesticides ☐ ☐ ☐ ☐Outdoor Pesticides ☐ ☐ ☐ ☐**Kitchen items:**

YES NO N M

Enamelware pots and pans ☐ ☐ ☐ ☐Enamelware dishes ☐ ☐ ☐ ☐Cups/Glasses ☐ ☐ ☐ ☐Silverware ☐ ☐ ☐ ☐Painted Ceramics ☐ ☐ ☐ ☐Mortar & Pestle ☐ ☐ ☐ ☐Tortilla Press ☐ ☐ ☐ ☐Lime Press ☐ ☐ ☐ ☐Cooking Utensils ☐ ☐ ☐ ☐**Cosmetics/Makeup:**

YES NO

____ (Name) ☐ ☐____ (Name) ☐ ☐**Soap/Shampoo/Face Cream:**

YES NO

____ (Name) ☐ ☐____ (Name) ☐ ☐**Medicines:**

YES NO

____ (Name) ☐ ☐____ (Name) ☐ ☐**Herbal Remedies:**

YES NO

____ (Name) ☐ ☐____ (Name) ☐ ☐**Foods:**

YES NO N M

Coffee ☐ ☐ ☐ ☐Flour ☐ ☐ ☐ ☐Sugar ☐ ☐ ☐ ☐Canned goods ☐ ☐ ☐ ☐Meat ☐ ☐ ☐ ☐Fish ☐ ☐ ☐ ☐Beans ☐ ☐ ☐ ☐Tortillas ☐ ☐ ☐ ☐Fresh Fruit ☐ ☐ ☐ ☐Fresh Vegetables ☐ ☐ ☐ ☐**Foods (Cont.):**

YES NO

Spices ☐ ☐**Others (List)**

YES NO

____ (Name) ☐ ☐____ (Name) ☐ ☐____ (Name) ☐ ☐____ (Name) ☐ ☐

OFFICE USE ONLY

R N M
☐ 55 ☐ 88 ☐ 99

Question #2:

R N M
☐ ☐ ☐

Code

N M

☐ ☐☐ ☐

Code

N M

☐ ☐☐ ☐

Code

N M

☐ ☐☐ ☐

Code

N M

☐ ☐☐ ☐

Code

N M

☐ ☐☐ ☐☐ ☐☐ ☐☐ ☐

Appendix A (Continued). Border Supplement Questionnaire

PAGE 4

Follow Up Supplement

- 3a. During the week we sampled, how often did you see smoke or smell something burning outside your home? *Fill in the circle above the correct response.*

☐ Never ☐ 1 day ☐ 2 days ☐ 3 days ☐ 4 days ☐ 5 days ☐ 6 days ☐ 7 days

→ Go to Question #4

- 3b. If you saw smoke or smelled burning, where did it come from? *Fill in all that apply.*

- ☐ 1. In your yard.
☐ 2. In your neighbor's yard or field (next door or across the street).
☐ 3. Further away.
☐ 4. Don't Know.

4. During what months are agricultural chemicals used in the field closest to your home? *Fill all that apply.*

☐ Not Applied ☐ Don't Know ☐ Jan ☐ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun ☐ Jul ☐ Aug ☐ Sept ☐ Oct ☐ Nov ☐ Dec

5. During this season:

- 5a. How close to your home is the nearest application of agricultural chemicals? *Fill in one bubble.*

- ☐ 1. In your yard.
☐ 2. In your neighbor's yard or field (next door or across the street).
☐ 3. Further away.
☐ 4. Pesticides are not applied near my home. → Go to Question #5c.
☐ 5. Don't Know. → Go to Question #5c.

- 5b. How are these agricultural chemicals applied? *Fill in all that apply.*

- ☐ 1. By airplane.
☐ 2. By mechanized agricultural spraying equipment on the ground.
☐ 3. Hand application by agricultural workers.
☐ 4. Other _____ (Specify).

OFFICE USE ONLY

R N M
☐ ☐ ☐

R N M
☐ ☐ ☐

R N M
☐ ☐ ☐

R N M
☐ ☐ ☐

R N M
☐ ☐ ☐

Code:

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Appendix A (Continued). Border Supplement Questionnaire

HHID: FS: IRN:

PAGE 5
Follow Up Supplement

5c. Are there any fruits or crops grown in the fields by your home?

- ☐ Yes → *Continue Below (5d).*
☐ No or not applicable → *Go to Question 6a.*

5d. List the fruits and crops grown in the field(s) closest to your home during this season?
If you know the names of the pesticides used to treat the crop, please record the name.

Crop	Pesticide used to treat the crop.
a. <input type="text"/>	<input type="text"/>
b. <input type="text"/>	<input type="text"/>
c. <input type="text"/>	<input type="text"/>
d. <input type="text"/>	<input type="text"/>
e. <input type="text"/>	<input type="text"/>

OFFICE USE ONLY

R N M
☐ ☐ ☐

☐ QC ☐ - 88.N
☐ - 55.R ☐ - 99.M

Crop code Pest. code

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

5e. How often do you get food directly from the fields? *Fill in one bubble.*

- ☐ 1. Never.
☐ 2. 1-3 days per month.
☐ 3. 1-2 days per week.
☐ 4. 3-6 days per week.
☐ 5. Daily.
☐ 6. Don't know.

R N M
☐ ☐ ☐

6a. How long do you stay in this town or location each year? *Write the number of weeks OR months; fill in the circle if you stay all year.*

weeks, OR

months, OR

☐ all year

R N M
☐ ☐ ☐

6b. Do all the people living in this house live here all year? *Fill in one bubble.*

- ☐ 1. Yes → *STOP.*
☐ 2. No, → *Continue below (6c).*

R N M
☐ ☐ ☐

6c. Write the number of people in 6b including yourself that moved.

people

Thank you for your participation!

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Pagelink QC:
Init:



Appendix A (Continued). Border Supplement Questionnaire

HHID	F.S.	Administration Date	Page
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Pesticide Survey

Line	Container	Product Name:	Key Ingredients/ Registration Number:	Formulation:	Storage site:	Condition of Container:	Last Known Use:	Sample Collected
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 N M OOO OO 4 5 OO	1 2 3 4 N M OOO OO 5 6 7 OOO	1 2 3 N M OOO OO 4 5 6 OOO	Y N N M OO OO OO OO	
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 4 OOO OO 4 5 OO	1 2 3 4 OOO OO 5 6 7 OOO	1 2 3 OOO OO 4 5 6 OOO	Y N OO OO OO OO	

Last known use Codes:

- 1) Never used.
- 2) Within the past week.
- 3) Within the past month.
- 4) Within the past 6 months.
- 5) Longer.
- 6) Dont know.

Container Codes:

- 1) Container is closed and outside is clean.
- 2) Container is closed and outside is soiled.
- 3) Container is opened.
- 4) Contents spilled on adjacent surfaces.
- 5) Mixing container (not original package)

Storage Codes:

- 1) Kitchen
- 2) Bathroom
- 3) Basement
- 4) Attic
- 5) Utility room
- 6) Attached garage
- 7) Attached shop / workshop

Formulation Codes:

- 1) Ready to use liquid.
- 2) Ready to use powder.
- 3) Liquid concentrate.
- 4) Dry concentrate.
- 5) Aerosol spray

Comments:

Code	Code	Code
<input type="text"/>	<input type="text"/>	<input type="text"/>

Appendix A (Continued). Border Supplement Questionnaire

Pesticide Survey

HHID	F.S.				Administration Date				Page
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
				MO	/	DAY	/	YR	

Line	Container	Product Name:	Key Ingredients/ Registration Number:	Formulation:	Storage site:	Condition of Container:	Last Known Use:	Sample Collected
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 N M OO OO 4 5 OO	1 2 3 4 N M OO OO 5 6 7 OO	1 2 3 N M OO OO 4 5 OO	1 2 3 N M OO OO 4 5 6 OO	Y N N M OO OO OO OO
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3 OO OO 4 5 OO	1 2 3 4 OO OO 5 6 7 OO	1 2 3 OO OO 4 5 OO	1 2 3 OO OO 4 5 6 OO	Y N OO OO OO OO

Formulation Codes:
 1) Ready to use liquid.
 2) Ready to use powder.
 3) Liquid concentrate.
 4) Dry concentrate.
 5) Aerosol spray

Storage Codes:
 1) Kitchen
 2) Bathroom
 3) Basement
 4) Attic
 5) Utility room
 6) Attached garage
 7) Attached shop / workshop

Container Codes:
 1) Container is closed and outside is clean.
 2) Container is closed and outside is soiled.
 3) Container is opened.
 4) Contents spilled on adjacent surfaces.
 5) Mixing container (not original package)

Last known use Codes:
 1) Never used.
 2) Within the past week.
 3) Within the past month.
 4) Within the past 6 months.
 5) Longer.
 6) Don't know.

Comments:

Code Code Code Code