National Human Exposure Assessment Survey (NHEXAS)

Arizona Study

Quality Systems and Implementation Plan for Human Exposure Assessment

The University of Arizona
Tucson, Arizona 85721

Cooperative Agreement CR 821560

Standard Operating Procedure   **SOP-UA-C-6.0**

Title: Keypunch Tracking, Custody, and Data Transfer

Source: The University of Arizona

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

KEYPUNCH TRACKING, CUSTODY, AND DATA TRANSFER

1.0   Purpose and Applicability

This is a sub-routine within the overall field data flow and custody plan (see SOP# UA-C-5.0: Field Data Flow and Custody). Its purpose is to establish a uniform procedure for the tracking of physical field forms and questionnaires while at Keypunch. It applies to all data processing batches of household packets sent to Keypunch for coding, data entry, and data verification.

2.0   Definitions

2.1   AHSC SITE: Arizona Health Sciences Center, located at 1501 N. Campbell Avenue; University of Arizona; Tucson, AZ 85724. The Respiratory Sciences Center is based at this site.

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

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

2.4   DATA PROCESSING BATCH (DP BATCH): A collection of household packets or physical data forms reviewed for quality assurance and ready for data entry. Each DP batch is assigned a unique numeric or alphanumeric code that is written on all forms in the DP batch and is entered into the database corresponding to that form.

2.5   FIRST STUDENT DATA INPUT ASSISTANT: A Student Data Input Assistant who codes a stack, but who cannot review the coding of the same stack; or, a Student Data Input Assistant who does data entry of a stack, but who cannot do data verification of the same stack (see STACK below).

2.6   FORM, PHYSICAL [DATA]: The paper or "hard copy" version of a data form. This is also referred to as a "physical data form."

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

2.8   FORM ID: The "ID" of a physical data form consisting of the key variable(s).

2.9   KEY VARIABLE(S): One or more variables in a data record or on a physical form whose value or combined values make a data record unique from the others in the same table or file.

2.10 KEYPUNCH: The primary area in which data entry and data verification of NHEXAS Arizona field data takes place. It is located in the Respiratory Sciences Center, Room 2329; Arizona Health Sciences Center (AHSC); 1501

N. Campbell Avenue; University of Arizona; Tucson, AZ 85724. Data are also entered and verified at the HRP SITE (see above).

2.11 LOGBOOK: The notebook where all documentation of the arrival and departure of individual physical forms within a household packet is kept.

2.12 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.

2.13 OWNERSHIP CARD: A large (6" x 4" or larger) index card placed atop a stack designating who is responsible for the stack, as well as the data processing status of the stack. The card contains a keypunch staff member's name followed by "coding," "reviewing," "data entry," or "data verification." For example, Pat Smith's ownership cards would read "Pat's Coding," "Pat's Reviewing," "Pat's Data Entry," and "Pat's Data Verification."

2.14 PACKET: A sturdy, envelope-like container that can be fully closed and is large enough to hold the physical data form(s) generated by a study household, laboratory, research site, or data processing batch. One type of packet is used for one type of physical data forms (eg., manila envelopes would be used for all lab forms processed at the HRP site). Packets are either color coded, labeled according to their contents, or both. What are referred to as "household packets" are relevant to this SOP (see PACKET, HOUSEHOLD below).

2.15 PACKET, HOUSEHOLD: A packet containing the physical data forms generated from sampling and surveying a study household.

2.16 SECOND STUDENT DATA INPUT ASSISTANT: A Student Data Input Assistant who reviews the coding of a stack, but who did not do the original coding of the stack; or, a Student Data Input Assistant who does data verification of a stack, but who did not do the original data entry of the stack.

2.17 STACK: A pile of one type of physical forms obtained from the packet(s) of a data processing batch. A stack is sorted in ascending, numerical order by key variable(s), is secured by a large rubber band with packets at bottom of stack, and is identified by an ownership card at all times when not being processed.

2.18 QA = QUALITY ASSURANCE: All those planned and systematic actions necessary for ensuring the validity, integrity, preservation and retrievability of the data.

2.19 QC = QUALITY CONTROL: Those quality assurance actions providing a means to control and measure the characteristics of an item, process, or the establishment of requirements.

2.20 TRACKING DATABASE: A database system containing information about the custody, transfer, and storage of hard copy data, electronic data, field samples, and field sample alloquats.

3.0 **References** (Not Applicable)

4.0 Discussion

Household packets receive ample handling, disassembly, and re-assembly while at Keypunch. One process that helps to minimize physical form loss throughout handling is to account for the contents of each household packet or data processing batch, both prior to and after data processing. As such, all physical forms are checked in before any coding is done to them and are checked out before they leave Keypunch.

A color-coded household packet usually contains a few different types of forms that are classified together based on type of data. For example, technical forms may be grouped into the "red" packet while question-naires are grouped in the "blue" packet. The keypunch custody tracking plan accounts for multiple types of forms within a household packet and for a packet containing a stack of one type of physical form.

5.0 Responsibilities

5.1   The Project Data Coordinator is responsible for (a) creating a data processing batch of household packets, (b) relinquishing custody of the created batch to Keypunch, and (c) attempting to locate any physical forms missing from household packets upon arrival at Keypunch, if notified of such a situation by the Data Input Operator Supervisor.

5.2   The Data Input Operator Supervisor is responsible for (a) supervising Student Data Input Assistants, (b) keeping custody of the contents of each household packet in a data processing batch while the batch is at Keypunch, (c) notifying the Project Data Coordinator of any physical forms missing from the household packets upon arrival at Keypunch, (d) ensuring that the contents of each household packet in a data processing batch are checked in and out of the logbook, and (e) notifying the Project Data Coordinator when a data processing batch is ready for pick up. The Data Input Operator Supervisor may delegate any of her or his responsibilities.

5.3   The Student Data Input Assistant is responsible to the Data Input Operator Supervisor, and for (a) checking the contents of the household packets in and out of the logbook for each data processing batch, and (b) keeping custody of the physical forms during coding, reviewing, data entry, and data verification.

6.0 Materials and Reagents

6.1   Materials

6.1.1 A DP batch of household packets or packet(s) containing one type of physical data form

6.1.2 "Batch Custody Form" (Figure 2) ~~Replace w/ Appendix A~~ *[handwritten annotation]*

6.1.3 "Household Packet Contents Log" form (Figure 3)

6.1.4 Logbook (This notebook houses the "Household Packet Contents

Log" forms)

6.1.5 "Coding, Entry, and Verification Record" form (Figure 4)

6.1.6 Ownership cards labeled appropriately

6.2 Reagents (Not Applicable)

7.0 Procedure

7.1 Preparations (Not Applicable)

7.2 Standards and Blanks (Not Applicable)

7.3 Procedure Description

7.3.1 For each data processing batch received from the Project Data Coordinator, the HHID of each household packet or the form ID of each physical form in a packet is checked off in the "received" column of the batch custody form.

7.3.2 Any household packets in the DP batch are disassembled one packet at a time.

7.3.3 The key variable(s) of the physical forms in each packet are recorded on the "Household Packet Contents Log" form in the logbook.

(a) The key variable(s) is written in the first column.

(b) Each type of physical form in the packet is counted and the total of each form is written in the column headed with the form's title.

(c) A slash is written in the column if no form(s) of a certain type is present.

7.3.4 As the contents of each packet are recorded in the logbook, they are placed in stacks.

7.3.5 The Data Input Operator Supervisor assigns each stack to one or more *first* Student Data Input Assistants for coding. Ownership cards are attached to the stacks appropriately.

7.3.6 The *first* Student Data Input Assistant(s) codes the stack. Upon completion, she or he initials and dates the "Coding, Entry, and Verification Record" form appropriately, and transfers custody back to the Data Input Operator Supervisor.

7.3.7 The Data Input Operator Supervisor assigns each coded stack of forms to one or more *second* Student Data Input Assistants for coding review. Ownership cards are attached to the stacks appropriately.

7.3.8 The *second* Student Data Input Assistant(s) reviews the coding of the stack. Upon completion, she or he initials and dates the

"Coding, Entry, and Verification Record" form appropriately, and transfers custody back to the Data Input Operator Supervisor.

7.3.9 The Data Input Operator Supervisor assigns each coded and reviewed stack of forms to one or more *first* Student Data Input Assistants for data entry. Ownership cards are attached to the stacks appropriately.

7.3.10 The *first* Student Data Input Assistant(s) does data entry of the stack. Upon completion, she or he initials and dates the "Coding, Entry, and Verification Record" form appropriately, and transfers custody back to the Data Input Operator Supervisor.

7.3.11 The Data Input Operator Supervisor assigns each entered stack of forms to one or more *second* Student Data Input Assistants for data verification. Ownership cards are attached to the stacks appropriately.

7.3.12 The *second* Student Data Input Assistant(s) performs data verification of the stack and stamps each form with **COMPLETED** stamp. Upon completion, she or he initials and dates the "Coding, Data Entry, and Data Verification Log" form appropriately, and transfers custody back to the Data Input Operator Supervisor.

7.3.13 The Student Data Input Assistant who verified the stack checks out each form of the stack in the logbook and files it in the original, appropriately labeled household packet.

(a) A dot (•) is marked next to the key variable(s) of a form when returned to the packet.

(b) If the form was unable to be coded or entered for any reason and it needs to stay in keypunch, then the key variable(s) for that form is circled in pencil.

(c) Once the electronic data for the form is verified and the physical form is ready to be returned to the Project Data Coordinator, the circled key variable(s) is erased and a dot is placed next to the key variable(s).

7.3.14 The household packets or packet(s) containing one type of form are reassembled into a batch as originally received in Keypunch.

7.3.15 The Data Input Operator Supervisor notifies the Project Data Coordinator that the batch is ready to be picked up. She or he initials and dates the batch tracking form after "called for pickup."

7.3.16 Within a period of one week, the Data Input Operator Supervisor relinquishes custody of the batch to the Project Data Coordinator.

7.4 Calculations (Not Applicable)

7.5   Special QA Checks

7.5.1 Tolerance Limits

(a)   Although each physical form is checked in and out of the logbook, one or more of them could be misplaced. In this case, the form ID(s) of the misplaced form(s) will be documented on a "Misplaced Data Forms and Packets" form (Figure 5) and the Project Data Coordinator will be notified within one business day.

(b)   Physical and electronic DP batches are supposed to be retrieved from Keypunch within one week of notification that they are ready. A maximum of five business days beyond the original scheduled day of retrieval is allowable under special circumstances. The latter includes insufficient trained personnel, lack of transportation or electronic storage media, and malfunctioning of LAN or pertinent computer hardware/software.

7.5.2 Detection Limits

(a)   For the processes outlined in this SOP that must occur within a certain time frame, all deviations are detectable via the batch custody forms.

(b)   For the custody transfers of physical data, all errors are detectable because the person representing a link in the chain of custody verifies the claim(s) of the person representing the previous link. This is an independent verification of both the key variable(s) and the presence or absence of physical data.

(c)   Any error(s) in key variable(s) originating with the Team Leader(s) that went undetected by the Project Field Coordinator will unfortunately be passed through the entire chain of custody, unless discovered by field staff.

7.5.3 Corrective Actions

(a)   For all misplaced data forms or packets, a search for them will begin within one business day of their being recorded on the "misplaced forms" sheet. The searching parties will be the person who currently maintains custody and the person who most recently relinquished custody. In the above situation, the former will notify the latter of the misplacement. If the form(s) or packet(s) have not been located within five business days, then all personnel in the data section will be notified of the misplacement via memo, e-mail, or meeting announcement. If appropriate, all personnel in the field section will be notified as well. At this point, the intensity of the search effort will depend upon the relative importance of the misplaced form(s) or packet(s).

(b)   If the retrieval of a DP batch from Keypunch exceeds five

retrieval, then the reason(s) for lack of retrieval will be addressed immediately. If the usual trained personnel are absent, then the On-Site PI will select someone to perform the job. If usual transportation is unavailable, then the University of Arizona shuttle bus or other state vehicle will be used. If the LAN or pertinent computer hardware/software are malfunctioning, then data will be retrieved manually via floppy disks if possible. If this is impossible, then data will be retrieved from tape backup(s). If this is impossible, then we will have to wait until pertinent equipment is fixed or otherwise resumes its normal functioning.

8.0 Records

8.1 Data to Be Recorded from This Procedure (Not Applicable)

8.2 Record Forms (Attached)

8.2.1 Figure 1: Keypunch Custody Flow Chart

8.2.2 Figure 2: "Batch Custody Form" (example)

8.2.3 Figure 3: "Household Packet Contents Log" form (example)
[This form may be generated by the tracking database.]

8.2.4 Figure 4: "Coding, Entry, and Verification Record" form (example)

8.2.5 Figure 5: "Misplaced Data Forms and Packets" form (example)

8.3 Location of Record Forms

8.3.1 The batch custody forms are returned to the Project Data Coordinator after the batch is cleaned. They are then stored in the "Data Processing Batch Sheets" notebook in the project offices.

8.3.2 The "Household Packet Contents Log" and "Coding, Data Entry, and Data Verification Log" forms are retained at Keypunch and stored in the logbook.

8.3.3 The "Missing Data Forms and Packets" form is retained by the person who maintained custody at the time of misplacement. Further, a copy of this form (or duplicate information) is maintained by the Project Data Coordinator for all misplaced physical data.

Figure 1: Keypunch Custody Flow Chart

HRP SITE

Project Data Coordinator

-- | --

AHSC SITE
(KEYPUNCH)   \ | /

Data Input Operator Supervisor

- Logs packet(s) on batch tracking form
- Logs contents of packet(s) in logbook
- Sorts physical forms into stacks in
        ascending, numerical order

\ | /

First **Student Data Input Assistant**

- Codes stack(s)

\ | /

Second **Student Data Input Assistant**

- Reviews coding of stack(s)

\ | /

First **Student Data Input Assistant**

- Enters stack(s)

\ | /

Second **Student Data Input Assistant**

- Verifies stack(s)
- Checks stack(s) out of logbook
- Files stack(s) back in packets

\ | /

(Packets Assembled in DP Batch as Originally Received)

\ | /

Data Input Operator Supervisor

-- | --

HRP SITE   \ | /

Project Data Coordinator

Figure 2: Example of a "Batch Custody Form"

BATCH CUSTODY FORM; DP batch # _____

Please date, initial and check boxes:

D A T A   E N T R Y

```
  To keypunch:      ___/___/___    By:____   Received By:____
Called for pickup:___/___/___      By:____
From keypunch:      ___/___/___    By:____
To Student DP:      ___/___/___    By:____   Received By:____
 From Stdt DP:      ___/___/___    By:____   Received By:____
        Filed:      ___/___/___    By:____   Received By:____
     Problem sheet attached to batch: [ ] yes    [ ] no
```

H O U S E H O L D   P A C K E T S   O R   F O R M S

	Key Variables	To KP	At KP	To HRP	To SDP	To Files	Comments:
1		[ ]	[ ]	[ ]	[ ]	[ ]	
2		[ ]	[ ]	[ ]	[ ]	[ ]	
3		[ ]	[ ]	[ ]	[ ]	[ ]	
4		[ ]	[ ]	[ ]	[ ]	[ ]	
5		[ ]	[ ]	[ ]	[ ]	[ ]	
6		[ ]	[ ]	[ ]	[ ]	[ ]	
7		[ ]	[ ]	[ ]	[ ]	[ ]	
8		[ ]	[ ]	[ ]	[ ]	[ ]	
9		[ ]	[ ]	[ ]	[ ]	[ ]	
10		[ ]	[ ]	[ ]	[ ]	[ ]	
11		[ ]	[ ]	[ ]	[ ]	[ ]	
12		[ ]	[ ]	[ ]	[ ]	[ ]	
13		[ ]	[ ]	[ ]	[ ]	[ ]	
14		[ ]	[ ]	[ ]	[ ]	[ ]	
15		[ ]	[ ]	[ ]	[ ]	[ ]	

Form ID: UA-C-4.0-1.0

replace w/ Appendix A [signature] 4/22/95

Figure 3: Example of a "Household Packet Contents Log" form

Grey Packets

HHID	Check Sheet	Daily Diary	Adult	Adult 2	PEDS	

Substitute with scanable form UA-C-6.0-1.1 total of 4 pages 10/15/95

Form ID: UA-C-6.0-1.0

Figure 4:   Example of a "Coding, Entry, and Verification Record" form

CODING, ENTRY, AND VERIFICATION RECORD

FORM NAME:_____

Form ID: UA-C-6.0-2.0

DP BATCH	CODING	DATA ENTRY		COMMENTS
	Init Date	Method	Init Date	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	
	Cod:____ __/__/__ Rev:____ __/__/__	[ ]scan [ ]keyp	Ent:____ __/__/__ Ver:____ __/__/__	

Figure 5: Example of "Misplaced Data Forms and Packets" form

MISPLACED DATA FORMS AND PACKETS

FORM TITLE: _____
STAGE: _____

LOST			FOUND				
Key Variable(s) _____ _____	Date Missing	By	Date Found	By	Where Found	Date Filed	Comments

Appendix A: Batch Description and Custody Records

BATCH DESCRIPTION AND CUSTODY RECORD

1. Form : _____

2. DP Batch: ☐☐☐

3. Forwarded to: Date

○ Student DP (HRP) .... ☐☐ / ☐☐ / ☐☐

○ Keypunch (Main Dept.)... ☐☐ / ☐☐ / ☐☐

○ Other........................ ☐☐ / ☐☐ / ☐☐

Tech. ID

4. Forwarded by: ___ Init. ☐☐

Tech. ID

5. Received on: ☐☐ / ☐☐ / ☐☐ by ___ Init. ☐☐

6. Filed on: ☐☐ / ☐☐ / ☐☐ by ___ Init. ☐☐

	HHID	F.S.	Date	IRN (If app.)	To Processing		From Processing		File
					Forward	Receive	Forward	Receive	
1.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
2.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
3.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
4.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
5.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
6.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
7.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
8.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
9.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
10.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
11.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
12.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
13.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
14.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐
15.	☐☐☐☐☐☐	☐	☐☐ / ☐☐ / ☐☐	☐☐	☐	☐	☐	☐	☐

Draft

Appendix B: Household Summary & Packet Contents Form

HOUSEHOLD SAMPLING SUMMARY

| Form Type: | | | | | Team | Tech ID | HHID | F.S. |

Form Type: 1 0 1

FORM UA-F-3.0-2.1

Study:
- ○ 1. NHEXAS
- ○ 2. Border
- ○ 3. _____
- ○ 4. _____
- ○ 5. _____

Stage # [ ]

Collapsed?
Y ○ N ○ 8 ○

Team Leader: _____ Init. Tech ID [ ][ ]

Qc By: _____ Init. Tech ID [ ][ ]

HHID [ ][ ][ ][ ][ ] F.S. [ ]

QC: ✓ [ ]

	MO	DAY	YR			MO	DAY	YR	
1. V1 on:	[ ][ ] / [ ][ ] / [ ][ ] or N/A [ ]				3. V3 on:	[ ][ ] / [ ][ ] / [ ][ ] or N/A [ ]			
2. V2 on:	[ ][ ] / [ ][ ] / [ ][ ] or N/A [ ]				4. V4 on:	[ ][ ] / [ ][ ] / [ ][ ] or N/A [ ]			

HOUSEHOLD LEVEL *SAMPLES*

Sample Type	Collected Y N N/A	Sample Status	QC: ✓	Sample Type	Collected Y N N/A	Sample Status	QC: ✓
PID Indoors	○ ○ ○	[ ]	[ ]	Yard Soil	○ ○ ○	[ ]	[ ]
PID Outdoors	○ ○ ○	[ ]	[ ]	Foundation Soil	○ ○ ○	[ ]	[ ]
Sentinel	○ ○ ○	[ ]	[ ]	Soil Thin Film	○ ○ ○	[ ]	[ ]
H2O Metals	○ ○ ○	[ ]	[ ]	Floor Dust	○ ○ ○	[ ]	[ ]
H2O Pests	○ ○ ○	[ ]	[ ]	Sill Wipes	○ ○ ○	[ ]	[ ]
H2O VOCS	○ ○ ○	[ ]	[ ]	Sill Thin Film	○ ○ ○	[ ]	[ ]
H2O Carb	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
OVM Indoors	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
OVM Outdoors	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
PF1 Indoors	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
PF1 Outdoors	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
Carbo Trap In	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
Carbo Trap Out	○ ○ ○	[ ]	[ ]	_____ [ ][ ]	○ ○ ○	[ ]	[ ]
Pm Indoors	○ ○ ○	[ ]	[ ]				
Pm Outdoors	○ ○ ○	[ ]	[ ]				

Status Codes:

1 = Completed	4 = Re-Collected	8 = N/A
2 = Not - Completed	5 = Refused	9 = Missing
3= Partially Completed	7 = Destroyed	

7706

Data Use Only: 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

Form Type	Collected			Form Status	QC: ✓
	Y	N	N/A		
PID Sheet	○	○	○	☐	[ ]
Sentinel	○	○	○	☐	[ ]
	Y	N	N/A		
H2O Metals	○	○	○	☐	[ ]
H2O Pests	○	○	○	☐	[ ]
H2O VOCS	○	○	○	☐	[ ]
H2O Carb	○	○	○	☐	[ ]
	Y	N	N/A		
OVM & HCOH	○	○	○	☐	[ ]
Active VOC	○	○	○	☐	[ ]
	Y	N	N/A		
PM Sheet	○	○	○	☐	[ ]
Soil Sampling	○	○	○	☐	[ ]
	Y	N	N/A		
Floor Dust	○	○	○	☐	[ ]

Form Type	Collected			Form Status	QC: ✓
	Y	N	N/A		
Tech QX	○	○	○	☐	[ ]
Descriptive QX	○	○	○	☐	[ ]
	Y	N	N/A		
_____ ☐☐	○	○	○	☐	[ ]
_____ ☐☐	○	○	○	☐	[ ]
_____ ☐☐	○	○	○	☐	[ ]
_____ ☐☐	○	○	○	☐	[ ]

Status Codes:

1 = Completed	4 = Re-Collected	8 = N/A
2 = Not - Completed	5 = Refused	9 = Missing
3= Partially Completed	7 = Destroyed	

Comments: _____
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Comments: _____
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Data Use Only:	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

7706

Form Id: UA-C-6.0-1.1 U 2 of 4 Pages

HHID: _____ FS: _____

INDIVIDUAL LEVEL *FORMS*

IRN #	Consent Form Y N N/A	Status	Baseline QX Y N N/A	Status	Activity Diary Y N N/A	Status	Follow Up QX Y N N/A	Status	QC: ✔
01	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
02	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
03	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
04	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
05	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
06	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	[ ]
07	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
08	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
09	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
10	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]

IRN #	Diet Checklist Y N N/A	Status	Diet Diary Y N N/A	Status	Diet Follow Up Y N N/A	Status	_____ Y N N/A	Status	QC: ✔
01	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
02	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
03	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
04	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
05	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
06	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	Y N N/A ○ ○ ○	☐	[ ]
07	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
08	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
09	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]
10	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	○ ○ ○	☐	[ ]

Other Form Code ☐☐

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Data Use Only: 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

Form Id: UA-C-6.0-1.1 U 3 of 4 pages

Sample Type	Collected			From IRN #	Sample Status	Field Form			Form Status	Comments	QC: ✓
	Y	N	N/A			Y	N	N/A			
Dermal (M)	O	O	O	☐	☐	O	O	O	☐		[ ]
Dermal (P)	O	O	O	☐	☐	O	O	O	☐		[ ]
	Y	N	N/A			Y	N	N/A			
Blood (M)	O	O	O	☐	☐	O	O	O	☐		[ ]
Blood (VOC)	O	O	O	☐	☐	O	O	O	☐		[ ]
	Y	N	N/A			Y	N	N/A			
Urine Sample	O	O	O	☐	☐	O	O	O	☐		[ ]
Food Sample	O	O	O	☐	☐	O	O	O	☐		[ ]
Bev. Sample	O	O	O	☐	☐	O	O	O	☐		[ ]
	Y	N	N/A			Y	N	N/A			
Personal Air (M)	O	O	O	☐	☐	O	O	O	☐		[ ]
Personal Air (P)	O	O	O	☐	☐	O	O	O	☐		[ ]
	Y	N	N/A			Y	N	N/A			
1 _____	O	O	O	☐	☐	O	O	O	☐		[ ]
2 _____	O	O	O	☐	☐	O	O	O	☐		[ ]
3 _____	O	O	O	☐	☐	O	O	O	☐		[ ]
4 _____	O	O	O	☐	☐	O	O	O	☐		[ ]

O Samp 1 ☐☐   O Samp 2 ☐☐

O Samp 3 ☐☐   O Samp 4 ☐☐

Comments: _____
_____
_____

Office Use Only

Form Status:
- O 1.Cmp
- O 2.N Cmp
- O 3.P Cmp
- O 4.Re-col
- O 5.Ref
- O 7.Dest
- O 8.N/A
- O 9.Miss

	Tech. ID	MO	DAY	YR
QC: ___ Init.	☐☐	☐☐ / ☐☐ / ☐☐
QA: ___ Init.	☐☐	☐☐ / ☐☐ / ☐☐

	Tech. ID	MO	DAY	YR
DE: ___ Init.	☐☐	☐☐ / ☐☐ / ☐☐
DP Batch: ☐☐	QXV: F S U M 1

Pagelink QC:
Init: _____

Chain of custody initiated (sig.): _____

Consigned to packet on: [ ] ____/____/____   Box UA G4-2.0

7706

Data Use Only:	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J
	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O