

**Standard Operating Procedure (SOP) for  
Computer Data Entry, Report Printing and System Maintenance  
for the National Performance Audit Program**

by

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**CAUTION**

Disclaimer: This Standard Operating Procedure has been developed for use by ManTech Environmental Technology, Inc. in support of the National Performance Audit Program (NPAP) under contract to the U.S. Environmental Protection Agency and may not be applicable to the activities of other organizations.

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## **PROCEDURAL SECTION**

### **1.0 SCOPE AND APPLICATION**

- 1.1 This procedure is intended for use when audit devices or materials have been calibrated, checked, shipped or returned from a National Performance Audit Program (NPAP) participant and when audit data sheets are submitted by a participant.
- 1.2 It also provides procedures for maintaining and backing up the NPAP Data Systems.

### **2.0 SUMMARY OF METHOD**

- 2.1 The information about an audit device or audit material or information from a participant data sheet is entered in the NPAP Data System for the calendar year when the audit is to occur or did occur.
- 2.2 Procedures are outlined for cases when information is incomplete or incompatible with the Data System software.
- 2.3 Results for individual audits and summary reports computed by the data system are printed and distributed to specified parties.
- 2.4 Regular system maintenance including regular system backups is specified.

### **3.0 CAUTIONS**

- 3.1 This procedure can only be executed by authorized personnel.
- The system requires a password for each authorized individual.
  - Operators are restricted to areas of the system for which they are responsible.
  - Only individuals trained, familiar with an audit program, and approved by the Program Manager will be given access to the audit program's software.
  - Do not share your password with someone else. A log is maintained of user access.
- 3.2 Importance of data entry sequence
- S** Entries must be made in chronological order as they happen; registration for an audit, standards data (calibrations and analyses), shipping information, and finally results and return shipment data.
- S** When a shipping entry is made, the standards or calibration data currently on file for the audit materials shipped are copied and stored for the laboratory to which the audit materials were sent.

**S** If the laboratory has not been registered, an error message states that the laboratory has not been scheduled for this audit quarter.

**S** When audit data sheets are returned and data is entered, the reported values are compared with the standard values stores for that audit when the shipping entry was made.

3.3 When registering a participant or working within the Data System, some avenues lead to errors from which it is difficult to escape. Follow one of the following sequences to exit the system:

**S** Press **Esc**, follow the prompts without saving, and select “Suspend” or “Cancel.”

**S** Follow the prompts to print the error screen. On the printout, note the computer in use and the activity prior to the error.

**S** Press **Ctrl-F2** to bring up the command window and type the word “Quit” to exit

**OR**

**S** Tap the **Alt** key to bring up the menu bar at the top of the screen.

- Pull down the “Program” menu.

- Move the cursor to “Cancel” if it is an option, then press **Enter**.

- Pull down the “File” menu, move the cursor to “Quit,” and press **Enter**.

**S** Inform the Data System Manager of the error.

3.4 If a participant’s data sheet is incomplete or has numbers that are incompatible for any reason with the NPAP Data System, delete any partial record entered. Contact the participant and request that a completed or corrected data sheet be transmitted to ManTech Environmental Tech. Inc.

3.5 When printing data or reports from the “Print Lists” menu, if **Enter** (the default) is pressed or “ALL” is selected for the Region, all the data for all the EPA Regions for the selected audit and quarter will print. This may take a long time and use a lot of paper.

3.6 When cleaning the laser printer, do not clean the transfer corona wires, even if directed by the manufacturer’s instructions. It has been determined that this may damage the wires.

## **4.0 PROCEDURES**

### **4.1 Accessing the Software**

4.1.1 Access the **NPAP Data System** which is located in the NPAP group by clicking on the NPAP icon. The database is menu driven.

- 4.1.2 Select the appropriate year from the **NPAP Windows for Workgroups Main Menu**. Press **Enter**.
- 4.1.3 Enter your password at the **PassWord Utility Program** screen.
- 4.1.4 At the main menu of the NPAP Data System for the calendar year of the audit, select "1. Enter Data."
- 4.1.5 Follow the directions in the appropriate subsection for the type of data to be entered.

**CAUTION**

Do not clean the transfer corona wires, even if directed by the manufacturer's instruction. It has been determined that this may damage the wires.

! Entries must be made in chronological order as they happen: registration for an audit, standards data (calibrations and analyses), shipping information and finally results and return shipment data.

! When a shipping entry is made, the standards or calibration data currently on file for the audit materials shipped are copied and stored for the laboratory to which the audit materials were sent.

! If the laboratory has not been registered, an error message states that the laboratory has not been scheduled for this audit quarter.

! When audit data sheets are returned and data is entered, the reported values are compared with the standard values stored for that audit when the shipping entry was made.

For example, if a shipping entry is made before the calibration data has been entered, the old calibration data will be linked to that laboratory. Similarly, trying to enter data before a shipping entry or standards entry has been made for that audit will result in error messages.

- 4.2.1 Scheduling participants for an audit year is normally done during the fall of the prior year.

**S** As of January 1 of the new year or a date set by the Data Systems Manager, the system tallies the number of participants registered for each audit by quarter and stores this information.

**S** Late requests may be entered by the EPA NPAP Coordinator or by ManTech Environmental personnel. Written notification of each change to the accepted schedule **must** be sent to the ManTech NPAP manager and shipping personnel.

**S** Written notification of each change to be accepted schedule **must** be sent to the ManTech NPAP manager and shipping personnel.

**4.2.2** At the **Enter Data Section** menu, select "1. Enter Participant Requests and Addresses."

**4.2.3** The system responds: "Enter the number of the lab to schedule (0 or Escape to exit)."

**4.2.4** Enter the lab number from the Schedule Request sheet.

### **CAUTION**

Do not clean the transfer corona wires, even if directed by the manufacturer's instruction. It has been determined that this may damage the wires.

Some avenues lead to errors from which it is difficult to escape. If this occurs, attempt to exit by:

- !** pressing **Esc**, following the prompts without saving, and selecting "Suspend" or "Cancel." Follow the prompts to print the error screen. On the printout, note the computer in use and the activity prior to the error.
- !** pressing **Ctrl-F2** to bring up the command window and typing the word "Quit" to exit.
- !** tapping the **Alt** key to bring up the menu bar at the top of the screen
  - pulling down the "Program" menu
  - moving the cursor to "Cancel" if it is an option, then pressing **Enter**.
  - pulling down the "File" menu, moving the cursor to "Quit," and pressing **Enter**.

**4.2.5** **Type of Scheduling Requests**

**4.2.5.1** **Case 1: Laboratory is being scheduled for another audit in new year.**

The system responds:

This lab already exists. Do you want to edit it?  
Select 'Y'es or 'N.'

1. Press "N" to exit this screen and return to **Step 4.2.3, or**
2. Press "Y" to bring up a scheduling screen similar to the one shown in figure 1 with the new year's current schedule.
  - S** Ignore a flashing address box which may appear in the left-hand corner of the screen.
  - S** Whether or not this address box appears depends on the speed of the computer.
3. The cursor will be in the **Cont** field for the first quarter CO audit. Use the **Tab**, **Enter**, and **Arrow** keys to move the cursor to other audits and quarters as needed.
4. Move the cursor to the audit with a "1" in the **Cont** field.
5. Compare both the contact and shipping addresses of the audit to be scheduled with the address that appears in the lower left-hand corner of the screen.
  - S** If the addresses are not the same, move the cursor to the next higher number in the **Cont** or **Ship** fields and compare addresses. Write down the number if a matching address is found.
6. Move the cursor to the **Cont** field of the audit and quarter to be scheduled.
  - A. If a matching address was found in **Step 5**, enter the corresponding number. An address screen appears in the lower left-hand corner.
    - !** Press **Ctrl-Enter** or move the cursor to <<OK>> and press **Enter** to return to the scheduling screen.
    - !** Move the cursor to the **Ship** field and enter the number for the shipping address if a match was found.
    - !** Press **Ctrl-Enter** or move the cursor to <<OK>> and press **Enter** to return to the scheduling screen.
    - !** Move the cursor to the **Samp** field. Enter the number of samplers to be audited.

Note: Enter a "1" in the **Samp** field for audits without a "number of samplers," such as lead or carbonyls.

Figure 1. Scheduling screen showing a registered participant

**NPAP-SOP-005** NPAP Data Entry

Date: March 2001

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Audit	QTR 1			QTR 2			QTR 3			QTR 4		
	Cont	Ship	Samp									
CO	1	2	5	0	0	0	0	0	0	0	0	0
SSI	1	2	10	0	0	0	1	2	10	0	0	0
Dichot	0	0	0	0	0	0	0	0	0	0	0	0
Lead	0	0	0	1	3	1	0	0	0	1	3	1
SO <sub>2</sub> cont	0	0	0	0	0	0	0	0	0	0	0	0
NO <sub>x</sub> cont	0	0	0	0	0	0	0	0	0	0	0	0
Ozone	0	0	0	0	0	0	0	0	0	0	0	0
VOCs	1	4	1	0	0	0	0	0	0	0	0	0
Carbonyls	0	0	0	0	0	0	0	0	0	0	0	0

-----  
Lab # - XXXXXX

Region - Y  
-----

F6 - copy address

F7 - default

F8 - next address

F9 - home

F10 - clear row

F11 - search

F12 - edit

Enter an existing address number or a new number to create an address.

## Key

- ! Cont = Contact person for the laboratory
- Ship = Shipping address for the audit equipment
- Samp = Number of samplers to be audited
- ! A zero in an address field or the sampler field means that an audit is not scheduled.
- ! Contact and shipping addresses and the sampler field must all contain zeros or all contain positive numbers.
- ! Instructions are listed on a bar across the bottom of the screen to facilitate data entry.

- B. If no contact (or shipping) matching address was found, enter the next unused address number.

The system responds:

Enter a New Address?  
Select 'Y'es or 'N'o.

- (1) Press 'N' to return the system to the previous screen. The message "Please enter a valid address label" will appear. Press **Esc** to quit. The system responds:

Save schedule for lab XXXXXX?  
Select 'Y'es or 'N'o.

Press 'N' to cancel the entry. Return to **Step 3.1.2**.

- (2) Press 'Y' and a blank address screen appears in the lower left-hand corner. The name field will be highlighted.
- (3) Enter the contact person's name in capital letters. Press **Enter**. Enter the 2-letter abbreviation for the state. Note that the first letter of "Search," "Clear," and "New" are highlighted as well as the nOKo.  
**Do not press Enter.**
- (4) Press "S" for "Search".
- ! The system searches for a match to the name and state entered.
  - ! If the name or agency found is correct, but the address is wrong, there may be multiple addresses for the same person.
  - ! Press "S" for "Search" to check for other addresses for this contact.

- (5) If a correct address is found, press **Ctrl-Enter** to link this address with the number and to return the system to the scheduling screen.
- (6) If an address was not located, "Address not found" appears.
  - ! Enter only the state and press "S" for "Search". The system brings up a different address record in this state each time "S" is pressed. This includes multiple addresses for the same contact, if they exist.
  - ! If a correct address is found, press **Ctrl-Enter** to link this address with the number and to return the system to the scheduling screen.
- (7) If a match is not found using the "Search" function, use the **down arrow** key to highlight "New" and press **Enter**.
  - ! The name field of the address box will be highlighted.
  - ! Enter the name and address.
  - ! Press **Tab** to move from one row to the next.
  - ! Use **Shift-Tab** to move back one field.
  - ! The city name must be on the last line of the address box.
  - ! Enter the other data as requested.
  - ! An optional entry can be made in the Comment Box.
  - ! Use the **Tab** key to exit the Comment Box. nOKo will be highlighted.
  - ! Press **Enter**.
  - ! The system responds:
    - Save the New Address?
    - Select 'Y'es or 'N'o.
  - ! Press 'Y' to save the address or 'N' to exit this screen.
7. Move the cursor to the **Ship** field and repeat **Step 5** to enter a shipping address.
8. Move the cursor to the **Samp** field and enter the number of samplers to be audited.

**Note:** Enter a "1" in the **Samp** field for audits without a "number of samplers," such as lead or carbonyls

#### 4.2.5.2 Case 2: Laboratory not scheduled in new year but was scheduled in last year.

The system responds by displaying a screen similar to the one shown in figure 1 that shows the last year's schedule. Compare the new year's schedule to the schedule on the screen:

1. If audit schedules match,

- ! Highlight each number in **Cont** and **Ship**. Check the contact person and addresses for accuracy.
  - ! Check the number in the **Samp** field for agreement. Change the number of samplers if necessary.
2. If additional audits need to be scheduled, follow **Steps 4 - 6** in **Section 4.2.5.1 Case 1: Laboratory is being scheduled for an additional audit in new year**.
  3. If audits need to be deleted from last year's schedule,
    - ! Move the cursor to the **Cont** field of the audit-quarter.
    - ! Replace the numbers in the **Cont**, **Ship**, and **Samp** fields with zeroes.
    - ! All three fields **must** contain zeros.

#### 4.2.5.3 Case 3: Laboratory not scheduled in new or last year.

**Note:** Except on rare occasions, laboratories will be in the NPAP data base system. If the laboratory has not participated in any NPAP audit during the new or the last year, add the laboratory by following the steps below:

1. The system brings up a screen similar to figure 2. Depending of the speed of the computer, a flashing address box may appear in the left-hand corner of the screen. Ignore it.
2. The cursor will be in the **Cont** field for the first quarter CO audit. Use the **Tab**, **Enter**, and **arrow** keys to move the cursor to other audits and quarters as needed.
3. With the cursor in the **Cont** field of the audit being scheduled, enter "1" to indicate that this is the first address used for this laboratory. This numerical entry links this specific audit and this contact person. Press **Enter**.

The system responds:

Enter a New Address?  
Select 'Y'es or 'N'o.

- A. Press 'N' to return the system to the previous screen. The message "Please enter a valid address label" appears. Press **Esc** to quit.

The system responds:

Save schedule for lab XXXXXX?  
Select 'Y'es or 'N'o.

Press 'N' to cancel the entry. Return to **Step 4.2.3**.

- B. Press 'Y' and an address screen appears in the lower left-hand corner. The name field will be highlighted.
4. **!** Enter the contact person's name in capital letters.  
**!** Press **Enter**.  
**!** Enter the 2-letter abbreviation for the state.  
**!** Note that the first letter of "Search", "Clear", and "New" are highlighted as well as the nOKo.  
**!** **Do not press Enter.**
5. Press "S" for "Search". The system searches for a match to the name and state entered.
6. If an address was located, follow section 4.2.5.1.
7. If an address was not located, "Address not found" appears.  
**!** Use the **Tab** key to highlight "New."  
**!** Press **Enter**.  
**!** Re-enter the name although it appears to be entered in the field.  
**!** Press **Tab** to move from one row to the next.  
**!** Use **Shift-Tab** to move back one field.  
**!** The city name must be on the last line of the address box.  
**!** Enter the other data as requested.  
**!** An optional entry can be made in the Comment Box.  
**!** Use the **Tab** key to exit the Comment Box.  
**!** With nOKo highlighted, press **Enter**. The system responds:

Save the New Address?  
Select `Y'es or `N'o.

Press `Y' to save the address or `N` to exit this screen. The system returns to a scheduling screen similar to the one shown in figure 1.

Figure 2. Blank Scheduling Screen

Audit	QTR 1			QTR 2			QTR 3			QTR 4		
	Cont	Ship	Samp									
CO	0	0	0	0	0	0	0	0	0	0	0	0
SSI	0	0	0	0	0	0	0	0	0	0	0	0
Dichot	0	0	0	0	0	0	0	0	0	0	0	0
Lead	0	0	0	0	0	0	0	0	0	0	0	0
SO <sub>2</sub> cont	0	0	0	0	0	0	0	0	0	0	0	0
NO <sub>2</sub> cont	0	0	0	0	0	0	0	0	0	0	0	0
Ozone	0	0	0	0	0	0	0	0	0	0	0	0
VOCs	0	0	0	0	0	0	0	0	0	0	0	0
Carbonyls	0	0	0	0	0	0	0	0	0	0	0	0

-----  
 Lab # - XXXXXX  
 Region - Y  
 -----

- F6 - copy address
- F7 - default
- F8 - next address
- F9 - home
- F10 - clear row
- F11 - search
- F12 - edit

Enter an existing address number or a new number to create an address.

**Key**

- ! Cont = Contact person for the laboratory
- ! Ship = Shipping address for the audit equipment
- ! Samp = Number of samplers to be audited
- ! A zero in an address field or the sampler field means that an audit is not scheduled.
- ! Contact and shipping addresses and the sampler field must all contain zeros or all contain positive numbers.
- ! Instructions are listed on a bar across the bottom of the screen to facilitate data entry.

8. **!** Move the cursor to the **Ship** field.  
**!** Enter the same number as in the **Cont** field if the address is the same or enter the next unused address number and press **Enter**.  
**!** Enter the new address following the steps in **Section 3.1.3.1**.  
**!** Use the "Search" option to check that this address is not already in the data base.
9. Move the cursor to the **Samp** column for that quarter to record the number of samplers.

**Note:** Enter a "1" in the **Samp** field for audits without a "number of samplers," such as lead or carbonyls

10. Use the arrow keys to move to the next audit and quarter to be scheduled.

**4.2.6** Continue (Case 1, 2, or 3) until all audits have been recorded for their respective quarters for this laboratory. Press **Esc**. The system responds:

Save Schedule for lab #XXXXXX?  
Select 'Y'es or 'N'o.

Press 'Y' to accept the schedule or "N" to delete the entry. The system will return to the prompt:

Enter the number of the lab to schedule (0 or Escape to exit)."

**4.2.7** Repeat **Section 4.2.5** to schedule another laboratory or press "0" to return to the **Enter Data Section**. Follow the screen menu prompts to exit the NPAP database.

### **4.3 Entering Information from Participant Data Sheets**

- 4.3.1 If the data sheet is complete and compatible, select “1. Enter Data” at the Main Menu.
- 4.3.2 Select “2. Enter Audit Data” at the Enter Data menu.
- 4.3.3 Select the audit from the list on the screen.
- 4.3.4 Type the calendar quarter.
- 4.3.5 Type the lab number from the label on the data sheet.
- 4.3.6 Type 'N' or 'Y' in response to "Survey" and the date received, if requested. This entry field will not appear for systems before 1996 or for systems or situations where a questionnaire is not applicable.
- 4.3.7 **Entering data**

If a data sheet is incomplete or has numbers that are incompatible for any reason with the NPAP Data System, delete any partial record entered. Contact the participant and request that a completed or corrected data sheet be transmitted to ManTech Environmental Technology, Inc.

#### **4.3.7.1 VOCs and Carbonyl data:**

1. An AIRS code, participant site ID, and data serial number may be requested. These may be left blank.
  - ! Follow the instructions on the screen for data serial numbers.
  - ! Press the **Tab** key to move to the next box.
  - ! Press **Shift-Tab** to move back a box.
  - ! No more changes can be made once the last entry space is filled or "Entered"  
When this field is filled, the next screen appears.
2. The system checks for data already entered for this specific lab, audit, quarter, and data serial number where applicable.
3. If it finds data already exists, it warns the user and asks "Print this data?"

- ! If "Y" is pressed, continue to **Step 3.2.8**.
  - ! If "N" is pressed, the audit selection list is presented.
4. If no data is found, the shipping records are checked to see that an audit packet was sent for this audit and to retrieve the identity of any cylinders and devices sent. If no standards or shipping records are found the user is warned and the system returns to **Step 4.3.5**.
  5. If shipping and standards records are found, a data entry screen resembling the data entry section of the field data sheet should appear. Any device or cylinder numbers found through checking the shipping records appear on the data entry screen in the appropriate blanks and will be used later to find calibration data and determine "Actual" values. Make entries in the appropriate blanks. User keys are listed across the bottom of the screen and they may vary depending on the screen:
    - ! **Ctrl-End** may be required to move from the first screen to the next screen.
    - ! **PgUp** may be used to return to the preceding screen.
    - ! **PgDn** may be used to move to the next screen.
    - ! **Tab** must be used to exit large text entry boxes.
    - ! **Ctrl-End** exits the last screen.
  6. When all data and information requested have been entered, press **Ctrl-End**. On the same screen, a choice box containing "Store this data/Abort & escape" appears. Press **Enter** for the default of "Store this data" or use the **down arrow** key to highlight "Abort & escape" to cancel this entry.
  7. If the data is stored, the system prints a data entry report for VOCs and carbonyls. Continue to **Step 4.3.8**.

#### **4.3.7.2 Audits other than VOCs and Carbonyls:**

1. For most audits an AIRS or other site number and a unique sampler serial number will be requested.
  - ! The site number may be left blank.
  - ! A unique set of characters **must** be entered for the sampler serial number. If none is given by the participant,
    - Select and enter the next number from the "none" list near the computer.
    - Write it on the data sheet in the blank space and cross off that number.
  - ! Enter other information from the participant's data sheet as requested by the computer. This will vary depending on the audit and may include monitor make, model, age, temperature, pressure, *etc.*

! No more changes can be made once the last entry space is filled or "Entered."  
When this field is filled, the next screen appears.

2. The system checks for data already entered for this specific lab, audit, quarter, and sampler serial number where applicable.

If it finds data already exists, it warns the user and asks "Print this data?"

! If "Y" is pressed, continue to **Step 4.3.8**.

! If "N" is pressed, the audit selection list is presented.

If no data is found, the shipping records are checked to see that an audit packet was sent for this audit and to retrieve the identity of any cylinders and devices sent. If no standards or shipping records are found the user is warned and the system returns to **Step 4.3.5**.

3. If shipping and standards records are found, a data entry screen resembling the rest of the data sheet will appear. Any device or cylinder numbers found through checking the shipping records will appear on the data entry screen in the appropriate blanks and will be used later to find calibration data and determine "Actual" values.  
! Make entries in the appropriate blanks.  
! Press **Enter** in the last entry space.
4. The system always pops up a choice box in the lower right corner of the screen with two choices: "Store this data or Abort & escape." If "Abort" is selected, no data will be recorded and the system will return to **Step 4.3.5**.
5. If "Store" is selected, the system requests comments. Press **Ctrl-W** to exit the comments box. Continue with **Step 4.3.8**.

#### 4.3.8 The system then asks:

Print data report now? ( ) Yes ( ) No ( ) X=yes & stop asking ( ) Quit

Type a letter, or move the cursor to highlight a selection and then press **Enter** or the **spacebar**:

X or Y: "Y" prints the report and asks this question again on the next data entry.

"X" prints the report and doesn't ask the question any more, assuming "yes" for the rest of this data entry session.

- N or Q: If either "N" or "Q" is selected, no report is printed and the system pops up a choice box in the lower right corner of the screen with two choices: "Store this data or Abort & escape."
- ! If "Store" is selected, data will be saved in the data system.
  - ! If "Abort" is selected, no data will be recorded.
  - ! If "N" was selected, the system goes on to the next data entry (**Step 4.3.5**). Press zero to exit.
  - ! If "Q" was selected, the system quits audit data entry and returns to the menu in **Step 4.3.2**. Press zero to exit

**4.3.8.1** If "X" or "Y" was selected, the system asks:

Number of copies? 0

See Section 5.2 for guidance on the number of copies to print and distribution of reports. Enter a number between 1 and 9 inclusive and the system begins writing a print file to disk. When the print file is complete, printing of the requested number of copies begins.

**4.3.8.2** If a graph of the data is presented, press the "L" key to print it on a LaserJet printer. If any other key is pressed, the graph will not be printed. This is useful for rapid print-outs when printing to non-laser printers.

**Note:** Graphs are computed for CO, SO<sub>2</sub>, NO, NO<sub>2</sub>, and O<sub>3</sub>.

**4.3.8.3** After the graph, if any, the system computes the mean absolute per cent difference of the data from "Actual" values.

- ! If this exceeds management determined limits, the user is warned about the large error with a flashing message.
- ! There is no computation or warning for VOCs or carbonyls because the criteria are complex.
- ! Hold the data until the device is returned and checked.

**4.3.8.4** After printing the requested copies, the system pops up the choice box:  
"Store this data or Abort & escape."

- ! If "Abort" is selected no data is recorded.
- ! If "Store" is selected the data is stored.

**4.3.8.5** The system presents the audit selection list.

- ! Enter either zero to exit or enter "X", then enter "0" (the number zero) for the lab number if no more data is to be entered.
- ! To exit, continue pressing the zero key until the Main Menu appears.
- ! Exit the **Main Menu** by selecting "6. Exit."

#### **4.4 Entering Audit Standards & Shipping Information**

- 4.4.1 At the data entry menu select "3. Enter Standards Data."
- 4.4.2 Select the audit from the list on the screen.
- 4.4.3 Select from the menu the appropriate entry as explained in the following subsections. All menus contain,
  - "0. Exit" which returns to the main menu,
  - "3. Ship ..." which enters a shipping record for that audit, and
  - "5. List # of ..." which gives a summary of shipments for all audits.
- 4.4.4 Audit programs require one or two selections to be completed before selection number 3 can be executed properly. These selections, numbers 1 and 2 on the menu, are audit specific and cover device calibrations, standards, and/or cylinder concentrations, as required.
- 4.4.5 Selection "4. Returned ..." is for entering return shipments of audit equipment.
- 4.4.6 Selection "6. List ... devices that are out" lists pairs of device numbers and lab numbers for devices that are out and must be shipped back at the conclusion of an audit.
- 4.4.7 Selection "7. List ... shipping records for 199x" prints a chronological list of all shipments and returns for the year 199x for the selected audit if devices have been returned.

#### **4.5 Entering or Editing Not-Reporting Reasons**

- 4.5.1 Select "1. Enter" or "2. Change" from the **NPAP Data System Main Menu**.
- 4.5.2 Select #4 on the next menu: "4. ... Not-Reporting Reasons."
- 4.5.3 Select the audit from the list on the screen.
- 4.5.4 Enter the calendar quarter.
- 4.5.5 Enter the laboratory number.
- 4.5.6 A screen showing the quarter, laboratory number, and current reason appears.

To save this reason, press **Enter** or "N."

**4.5.7** To change the reason, enter "Y" in the Change box.

A. If this is a "standard" reason, the list of standard reasons appears.

! Chose the new reason by number.

! If the reason is not listed, press **Enter** to enter a special reason.

- A text entry box appears.
- Enter the reason, including appropriate dates, names and references to memos, notes or data sheets.
- Record any written reason exactly as received.
- Press **Ctrl-W** to save and exit the edit window.

B. If this is a special reason, the computer responds on the same screen:

! After editing the reason, use **Ctrl-W** to save.  
(do not use "Esc.")

! Press any key to continue.

! Edit the current reason that appeared when the key was pressed or enter a new reason.

! Press **Ctrl-W** to save (**Esc** cancels the change).

**4.5.8** The system returns to the screen requesting a lab number (**Step 3.4.5**). Enter "zero" for the lab number to exit.

## **5.0** **PRINTING REPORTS**

**5.1** Accessing the NPAP Data System which is located in the NPAP group by clicking on the NPAP icon. The database is menu driven.

**5.1.1** Select the appropriate year from the **NPAP Windows for Workgroups Main Menu**. Press **Enter**.

**5.1.2** Enter your password at the **PassWord Utility Program** screen.

## **5.2** **Printing Results of Individual Audits**

**5.2.1** Reports of results of each individual audit are printed immediately after entry of each audit's data sheet information. (See **Section 4.3**)

- 5.2.1.1 Hold all lead (Pb) and carbonyl audits until the closing date of the audit.
- Mail lead data within five working days of the close of the audit
  - Mail carbonyl audits within ten working day of the close of the data provided the participant has returned all audit equipment.
- 5.2.1.2 Hold all other data until the cylinder and/or device has returned and been checked.
- 5.2.1.3 If the mean absolute percent difference > 10%, make two copies.
- S** If the audit equipment, if any, has been returned, mail one directly to the participant agency/contact address with a cover letter about the audit.
  - S** Attach the other copy to the original data form for filing.
- 5.2.1.4 If the mean absolute percent difference > 10%, make three copies. Use two copies as above.
- S** Save the third copy to possibly attach to the summary which is sent to the Regional Office at the end of each month.
  - S** Before any "bad" data is sent out, the audit equipment must pass its QC checks. If the device fails the post-audit check, follow "Non-Routine Protocol 6 - Data Outside the Specified Limits."
  - For results that are outside of EPA determined action limits (see **Section "B10.5 Unacceptable Results"** of the **QA Project Plan**), the participants are requested in the cover letter to investigate to determine the cause of their error and report what corrective action was taken to ManTech Environmental. Fill out the top of a Corrective Action Survey Form and enclose it and a return envelope with the data report.
- 5.2.2** Individual audit reports may also be printed from the "Print lists" menu as follows:
1. At the main menu of the NPAP Data System for the calendar year of the audit, select "4. Print Lists."
  2. At the print lists menu, select "3. Lists Reporting Results."
  3. Select any output device (Screen, Printer or Disk File). Output will be to the printer regardless of the selection.
  4. Select the audit from the list on the screen.
  5. Enter the calendar quarter.
  6. The next menu has many report selections. Select "5. List Individual audit results."

- S** There is a cautionary note indicating these reports do not print intact if sent to a network printer. This means they will only print correctly to a printer directly attached to your PC.
- S** However, a single report may print intact to a network printer.

**CAUTION**

Do not clean the transfer corona wires, even if directed by the manufacturer's instruction. It has been determined that this may damage the wires.

7. Enter the U.S. EPA Region to limit reports to one Region or one lab.
8. After a Region number has been entered, the computer will request a lab number. Press **Enter** to accept "ALL" (the default) and reports will print for all agencies in the selected Region, or enter a specific lab number and reports will print only for that agency in that quarter for the selected pollutant.
9. After a lab number has been entered, the computer will request AIRS code and Serial No. Enter "ALL" in either blank to print all data sets for that pollutant, agency and quarter, or enter a specific serial number (AIRS code for 1989 data) and it will print only one data set.
10. Next the system will ask the question:  
  
Print data report now? ( ) Yes ( ) No ( ) X=yes & stop asking ( ) Quit
11. Type a letter or move the cursor to highlight a selection and then press **Enter** or the **spacebar**.

X or Y: If either key is pressed, all the reports for a selected lab are printed. There is no further prompting for that lab from the computer regarding printing.

"Y" prints the report and asks this question again for the next lab.

"X" prints the report and doesn't ask the question any more assuming "yes" for the rest of this data printing selection.

N or Q: If either "N" or "Q" is pressed, no report is printed. If "N" was selected, control returns to requesting a Region (**Step 7** of this section)  
. If "Q" is selected, the system responds "Press any key to continue." After pressing any key, control returns to the menu in **Step 6**.

**12.** If "X" or "Y" was selected, the system will ask:

Number of copies? 0

**S** Enter a number between 1 and 9 inclusive and the system will begin writing a print file to disk.

**S** When the print file is complete, printing of the requested number of copies will begin.

**13.** If a graph of the data is presented, type the "L" key to print it on a LaserJet printer. If any other key is pressed, the graph is not printed. This is useful for rapid print-outs of data only to non-laser printers.

**14.** After the graph, if any, the system computes the mean absolute per cent difference of the data from "Actual" values. If it exceeds the value set by management, the user is warned about the error with a flashing message. Hold the data until the device is returned and checked (See Section 5.2.1 for details).

**15.** When the report(s) have been printed, control returns to the Region request in **Step 7**. To exit, enter zero for both the Region and the lab number.

### **5.3 Printing Status and Summary Reports**

**5.3.1** Status reports are printed upon request and for each ManTech Environmental staff meeting. Other reports are printed as needed or as requested by the EPA NPAP Coordinator.

**5.3.2** At the main menu of the NPAP Data System for the calendar year of the audit:

Select "4. Print Lists."

**5.3.3** At the print lists menu, select "5. List # of Devices Shipped/Returned" and/or "4. List # of Audits Scheduled/Reported."

**5.3.3.1** If "4 List # of Audits Scheduled/Reported" is selected:

- S Select the output device (Screen, Printer, or Disk File).
- S The report will print or display and control will return to the print lists menu.
- S Enter zero to exit.

**5.3.3.2** If "5 List # of Devices Shipped/Returned" is selected:

- S Select the output device (Screen, Printer or Disk File).
- S The system will ask for a date range (beginning and ending dates) for the report to cover.
  - S The earliest date allowed is 9/1 of the preceding year and the latest date allowed is today's date.
  - S Enter 9/1/(past year) and today's date as starting and ending to report on everything year-to-date.

- S After the date range has been selected, two yes/no questions will be displayed:

Apply these dates to the count of data reports also?

Also print a report of per cent complete by quarter?

- S Normally both questions are responded to with "Y". After answering these two questions, the reports will print or display.
  - S Control will return to the print lists menu.
  - S Type zero to exit.

**5.4** Printing Lists of Participants for Each Quarter

- 5.4.1** At the main menu of the NPAP Data System for the calendar year of the audit, select "4. Print Lists."
- 5.4.2** At the print lists menu, select "1. List Addresses by Audit and Quarter".
- 5.4.3** Select the output device (Screen, Printer or Disk File).
- 5.4.4** Select the audit from the list on the screen.
- 5.4.5** Enter the calendar quarter.
- 5.4.6** Only enter the U.S. EPA Region if a list limited to one Region or one lab is desired; otherwise, press **Enter** to accept "ALL" (the default):
  1. If the screen output is selected, the list displays on screen.

**S** page up and down to view the entire list.  
**S** press ESC and it ask, "Print this report?"

2. If printer output is selected, it asks if this is the official printout, "Y" or "N"  
**S** If disk file output is selected, the report runs and control returns to the "Print Lists" menu.

5.4.7 If a Region number was entered above, the computer will request a lab number. Press **Enter** to accept "ALL" (the default) and the report will print all agencies in the selected Region, or enter a specific lab number and the report will contain only those audits scheduled for that agency in that quarter for the selected pollutant.

5.4.8 Control will return to the "Print Lists" menu when the report is completed.

5.4.9 Select zero to exit.

## 5.5 Printing Lists of Participants for the Year

### 5.5.1 Accessing Software

**S** At the main menu of the NPAP Data System for the calendar year of the audit, select "4. Print Lists."

**S** At the print lists menu, select "2. List Addresses or Lab No.'s for the Year".

**S** Select the output device (Screen, Printer or Disk File).

**S** A menu with many options will appear:

**S** Each option in this menu includes all audits for the year.

**S** The first group of options prints lab numbers and addresses associated with each audit and the number of samplers requested where applicable; each option is a different way of sorting the list.

**S** The second group of options prints only to the printer or a disk file (not to the screen at this time) and prints only the lab numbers (no addresses) sorted in different ways.

**S** The final group of options prints lab numbers and addresses to specific disk files for merging with invitation or confirmation forms in Word Perfect.

5.5.5 For some options a "Region" will be requested next. Enter the U.S. EPA Region to limit the list to one Region or one lab. Otherwise, press **Enter** to accept "ALL" (the default) and the report will run.

- 5.5.6** If a Region number was entered above, the computer will request a lab number.  
**S** Press **Enter** to accept "ALL" (the default) and the report will print all agencies in the selected Region, or  
**S** Enter a specific lab number and the report will contain only those audits scheduled for that agency for the year.

5.5.7 After the Region and optional lab number have been entered, the system requests

Audit(s): ALL

- S** Press Enter for all audits or "1" (the number one) to select only one audit.  
**S** If the number one was typed, a pop up list will appear with audit selection options.

**5.5.8** When the report is done control will return to the "Print Lists" menu; select zero to exit.

## **5.6** Printing Statistical Summary Reports

**5.6.1** Accessing the program.

- S** At the main menu of the NPAP Data System for the calendar year of the audit, select "4. Print Lists."  
**S** At the print lists menu, select "3. Lists Reporting Results."  
**S** Select the output device (Screen, Printer or Disk File).  
**S** Select the audit from the list on the screen.  
**S** Enter the calendar quarter.

5.6.2 Select the type of report required from the statistical report selections. The number of options varies depending on the audit selected.

5.6.3 Respond to the question "Remove outliers? (Y or N)."

- !** If "N" is selected, the computer will accumulate data and print or display the report.  
**!** If "Y" is selected, a percentage is requested. When a percentage has been entered, the computer will accumulate all data in error by less than the percentage entered and will print the report including the outlier percentage chosen.

Note: For data validation, quarterly and monthly reports, outliers have not been removed (all data has been included).

**5.6.4** After the report has printed or displayed, the system will return to the menu in **Step 5.6.2** above. Select zero to exit.

5.6.5 Select zero to exit.

## **5.7** **Printing Participant's History Reports**

**5.7.1** Accessing the program:

**S** At the main menu of the NPAP Data System for the calendar year of the audit, select "4. Print Lists."

**S** At the print lists menu, select "6. List Shipping History for 1 Agency."

**S** Select the output device (Screen, Printer or Disk File).

**5.7.2** Entering report parameters

**S** The screen displays two years: 1989 (the first year data are available) and the current year. Below the years is "Region" set to a default of "ALL."

**S** Enter the first (start) and last (end) years for the history range and an EPA Region number (zero to ten).

Note: If you leave Region as "All," there will be two opportunities to abort and change the selection. One of the messages will list the number of labs to print and a time estimate for the run. This option, "All," is not recommended.

**S** After a Region number has been entered, the screen displays a lab # entry space set to a default of "All." If "All" is selected, options to back up, abort, or select a sort option are offered.

**S** Enter the lab number.

**5.7.3** A history from the start year to the end year will be printed (or displayed) for the selected agency. The report will list:

**S** Each audit scheduled for the agency.

**S** How long the equipment was kept.

**S** If data was reported by the agency.

**S** Not reporting reasons, if any, will be printed as footnotes to the table.

**5.7.4** The system returns to the screen requesting the years and Region (Step 5.7.2) after completing the report.

**5.7.5** To exit, press **Enter** for both years and enter "0" (zero) for both Region and lab #.

## 6.0 Computer System Operations

6.1 Computer Software. The NPAP Data Base System requires a PC LAN with multi-user, multi-tasking software:

- S Flexible data base management software.
- S Word processing software compatible with customer software.
- S Spreadsheet software.
- S Data acquisition software compatible with laboratory instrumentation.

6.2 Computer Hardware. The NPAP Data Base System requires a PC LAN with adequate speed and storage for NPAP data.

## 6.3 Software Backups

### 6.3.1 Daily Backups

- S Perform a backup at the end of every business day.
- S Secure it off-site or keep it with you at all times until the next back replaces it.
- S When the next backup has been performed and secured off-site, return the “old” backup to the storage area for the backup media.
- S To ensure that the media with the oldest backup date is selected for the next backup, place the media with the most recent date at the back of the queue.

### 6.3.2 Monthly Whole System Backups

- S Each month perform backups for the NPAP server and development hard disks.
- S Execute the backup software.
- S Reformat or erase the media if necessary.
- S Use the FULL backup routine to copy each logical disk drive, (C, D, etc.) To the backup media.
- S When the next backup has been performed and secured off-site:
  - S Return the “old” backup to the storage area for the backup media.
  - S To ensure that the media with the oldest backup date is selected for the next backup, place the media with the most recent date at the back of the queue.
- S

## 6.4 **SYSTEM MAINTENANCE AND BACKUPS**

**Note:** These activities are only to be performed by authorized system maintenance personnel. These activities are only to be performed by authorized system maintenance personnel.

### 6.4.1 Floppy Disk

- S Clean floppy disk drives as needed.
- S Follow the manufacturer's directions in floppy disk cleaning kit.

## **6.4.2 Hard Disk**

### 6.4.2.1 Annual maintenance, or if software crashes.

- S Remove extraneous and old files.
- S Run CHKDSK or SCANDISK

### 6.4.2.2 "As Needed" Maintenance

- S Use SpinRite, Norton Disk Doctor, Scandisk, or similar software to perform a complete disk surface test.
- S Begin the operation at the close of the business day as it may last several hours.
- S Specific software recommendations:
  - S SpinRite II: Reboot system; use depth 4
  - S Norton Disk Doctor: Exit Windows and use the following settings:
    - Disk test
    - Weekly
    - 10 repetitions
    - Prompt before repair

### **6.4.3 Laser Printer Maintenance**

**CAUTION**

Do not clean the transfer corona wires, even if directed by the manufacturer's instruction. It has been determined that this may damage the wires.

- S Replace laser printer cartridges as needed.
- S Perform the cleaning steps given in the printer or cartridge manufacturer's manual.

### **QUALITY ASSURANCE/QUALITY CONTROL SECTION**

- 1.0 Data validation is conducted following NPAP-SOP-006 Data Validation for Data Bases of the National Performance Audit Program.
- 2.0 The activities specified in this SOP are subject to EPA Systems Audits.

### **REFERENCES**

- 1.0 *Non-Routine Protocol 6 - Data Outside the Specified Limits.*
- 2.0 *QA Project Plan, Section 5.2.*
- 3.0 NPAP-SOP-006 Data Validation for Data Bases of the National Performance Audit Program.