

**Region 4**  
**U.S. Environmental Protection Agency**  
**Science and Ecosystem Support Division**  
**Athens, Georgia**

**OPERATING PROCEDURE**

**Title: Logbooks**

**Effective Date:** November 1, 2007

**Number:** SESDPROC-010-R3

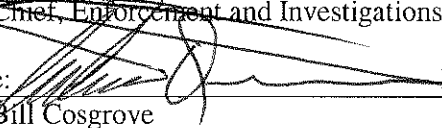
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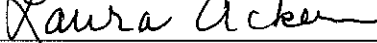
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## Revision History

History	Effective Date
<p>SESCPROC-010-R3, <i>Logbooks</i>, replaces SESDPROC-010-R2</p> <p>This revision reflects the following changes:</p> <p><b>General:</b> Updated referenced procedures to reflect most recent version.</p> <p><b>Title Page:</b> Changed title for Antonio Quinones from Environmental Investigation Branch to Enforcement and Investigations Branch</p> <p><b>Section 1.4</b> Alphabetized.</p>	<p>November 1, 2007</p>
<p>SESCPROC-010-R2, <i>Logbooks</i>, Replaces SESDPROC-010-R1</p> <p><b>General</b> The revision history in SESDPROC-010-R1 was incorporated using a hyperlink. In SESDPROC-010-R2, the hyperlink was removed and the revision history was incorporated into the document.</p>	<p>September 25, 2007</p>
<p>SESDPROC-010-R1, <i>Logbooks</i>, Replaces <i>Field Records (Logbooks)</i> SESDPROC-010-R0</p> <p>This revision reflects the following changes:</p> <p><b>General</b> Deleted all references to the SOSA.</p> <p><b>Cover Page</b> Author was changed from Daniel Thoman to Laura Ackerman due to extensive re-writes by Laura Ackerman. Changed name of procedure from <i>Field Records (Logbooks)</i> to <i>Logbooks</i></p> <p><b>Section 1.1</b> Deleted last two sentences of first paragraph and first sentence of second paragraph for clarity. Changed examiner/analyst to field investigator.</p>	<p>August 10, 2007</p>

<p><b>Section 1.2</b> Deleted second sentence.</p> <p><b>Section 1.3</b> Updated to reflect that the official copy of the procedure resides on the H: drive rather than with the FQM.</p> <p><b>Section 2.1</b> Deleted first paragraph for clarity. Reworded second sentence in second paragraph and deleted third sentence in second paragraph. Deleted second and third sentences in third paragraph. Added first and last sentences of third paragraph.</p> <p><b>Section 2.2</b> Deleted “Ideally” at beginning of first paragraph. Added second and third sentences in first paragraph. Added requirement for drawing a diagonal line and initialing at the end of unfilled pages. Reworded fourth sentence. Added last sentence of first paragraph. Deleted second paragraph. Added “or signing” in third paragraph. Added requirement for downloading logged data while in the field. Added requirement for indicating end of project notes in the logbooks. Added requirement for signing across adhesive labels onto logbook page if applicable.</p> <p><b>Section 2.3</b> Renamed Section 2.3. Added all text in Section 2.3.</p> <p><b>Section 2.4</b> Reformatted bulleted list into separate subsections (2.4.1, 2.4.2, 2.4.3, and 2.4.4). Added “full name and initials” to items 5 and 6 in Section 2.4.1. Added items 3 – 8 and 14 in Section 2.4.3.</p>	
<p>SESDPROC-010-R0, Field Records (Logbooks), Original Issue</p>	<p>February 5, 2007</p>

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# Contents

## **1 General Information**

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### **1.1 Purpose**

This procedure is to be used by field investigators when documenting pertinent and factual information in logbooks related to field investigations involving sampling and measurement procedures and/or other data collection events.

### **1.2 Scope/Application**

This document describes the various types of information that should be included in the field log books used to document field investigations conducted by SESD.

### **1.3 Documentation/Verification**

The procedures found within this document were prepared by persons deemed technically competent by SESD management, based on their knowledge, skills and abilities and have been tested in practice and reviewed in print by a subject matter expert. The official copy of this procedure resides on the H: drive of the SESD local area network. The Field Quality Manager is responsible for ensuring the most recent version of the procedure is placed on the H: drive and for maintaining records of review conducted prior to its issuance.

### **1.4 References**

SESD Operating Procedure for Control of Records, SESDPROC-002, Most Recent Version

USEPA Region 4 Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), November 2001

## **2 Field Records and Documentation Procedures**

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### **2.1 General**

Dedicated logbooks will be used for all projects and by each sampling team associated with a project. Logbook entries should be objective, factual, and free of personal feelings or other terminology which might prove inappropriate. All aspects of sample collection and handling, as well as visual observations, should be documented.

Any deviations from the quality assurance project plan that occur while in the field will be noted in the logbook(s). Logbook entries that may be considered privileged or confidential information will be handled in accordance with the relevant sections of SESD Operating Procedure for Control of Records (SESDPROC-002). The logbooks will be placed in the SESD project file upon transmittal of the final report to the project requestor.

### **2.2 Field Data Integrity and Accountability**

- Logbooks should be bound and each page in the logbook numbered and dated.
- Observations, data and calculations should be recorded at the time they are made.
- Unless prohibited by weather, pens with permanent ink should be used to record all data. When weather conditions do not make it feasible to use permanent ink, entries should be made using a non-smear lead pencil (e.g., 2H or 3H). The penciled entries should be repeated with a permanent ink pen as soon as possible after the original entry.
- Logbook entries should be legible and contain pertinent, accurate and inclusive documentation of project activities.
- Field investigators should draw a diagonal line and initial to indicate the conclusion of an entry at 1) the end of all entries for each day, and 2) at the end of unfilled pages.
- Upon completion of the field investigation, the end of project entries in the logbook should be clearly indicated. This may be accomplished by noting “End” on the last page of notes and dating and initialing the notation.
- In order to demonstrate continuity of the project and to preclude questioning of the integrity of the data collection process, pages should not be removed from bound logbooks under any circumstances.

- Data or other information that has been entered incorrectly will be corrected by drawing a line through the incorrect entry and **initialing or signing and dating** the lined-through entry. Under no circumstances should the incorrect material be erased, made illegible or obscured so that it cannot be read.
- If pre-printed adhesive labels are used in logbooks to facilitate organization of information entry, the field investigator who is responsible for taking notes should sign the label with the signature beginning on the label and ending on the page of the logbook book such that the label cannot be removed without detection.

## 2.3 Bound Forms

In order to facilitate accurate and complete documentation of many field sampling and measurement activities, bound forms may be used. The information in Section 2.4 below should be included with bound forms. The forms must be numbered using the page x of y format and bound prior to use in the field. At the conclusion of the project, the sample team leader should strike through any unused forms with a diagonal line that covers the entire page, and initial and date the page.

## 2.4 Logbook Entry Information

### 2.4.1 General Information Required in All Logbooks

The following information will be included either on the front cover or the first page of **all logbooks**:

1. Project name
2. Project location
3. Project identification number
4. Project leader (full name)
5. Sample team leader (full name) and initials
6. Sample team member(s) (full name) and initials.

### 2.4.2 Information Required for Sample Collection

In addition to the information listed in Section 2.4.1, the following information will be included in all logbooks when **samples** are collected:

1. Date and time of collection
2. Sample station identification
3. Method of collection
4. Number and type of containers
5. Sample collection equipment
6. SESD equipment identification number, if applicable

7. Physical description of sample
8. Matrix sampled
9. Sample team member duties (calibration, collection, deployment, etc.)
10. Sample preservation (including ice), if applicable
11. Indication of sample team member duties
12. Conditions that may adversely impact quality of samples, if applicable (rain, wind, smoke, dust, extreme temperature, etc.)
13. GPS coordinates (Non-logging GPS units), if applicable
14. Location of electronic data file backups, if applicable
15. Monitoring of condition of ice in coolers or sampler
16. Other pertinent information.

### ***2.4.3 Information Required for Field Measurements***

In addition to the information listed in Section 2.4.1, the following information will be included in all logbooks when **measurements** are conducted:

1. Date and time of measurement or deployment
2. Sample station identification
3. Sample measurement equipment
4. SESD sample measurement equipment identification number
5. Manufacturer name, lot number and expiration date of all buffers and standards\*
6. Calibration information, including before and after calibration readings\*
7. Meter end check information
8. Deployment depth and total depth, if applicable
9. Pinger identification number and frequency for deployed equipment, if applicable
10. Time of retrieval for deployed equipment, if applicable
11. Physical description of matrix
12. Sample team member duties (calibration, collection, deployment, etc.)
13. Measurement values for non-logging equipment
14. GPS coordinates (non-logging GPS units), if applicable
15. Location of electronic data file backups, if applicable
16. Ambient air temperature, where applicable
17. Conditions that may adversely impact quality of measurement (Ex. temperature extremes)
18. Maintenance performed, if applicable
19. Meter malfunctions, if applicable
20. Other pertinent information

\* Entry of calibration information in logbooks is only required for calibrations conducted in the field. All calibrations conducted at the Field Equipment Center or SESD laboratory will be recorded in the appropriate equipment tracking logbook.

#### ***2.4.4 Additional Information for Inclusion***

The following information may be included in logbooks as appropriate:

1. Maps/sketches
2. Photographic or videographic log
3. Process diagrams