

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

**OPERATING PROCEDURE**

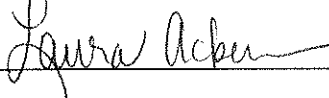
**Title: Purchasing of Services and Supplies**

**Effective Date:** July 10, 2009

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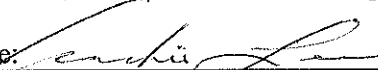
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## Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the SESD Document Control Coordinator (DCC).

History	Effective Date
<p>SESDPROC-015-R3, <i>Purchasing of Services and Supplies</i>, Replaces SESDPROC-015-R2</p> <p><b>General Information</b> Previous versions of the document will be maintained by the Document Control Coordinator (DCC). Changed from Field Quality Manager (FQM) to DCC.</p> <p><b>Title Page</b> Changed EIB Branch Chief from Antonio Quinones to Archie Lee.</p> <p><b>Section 1.1</b> Added "chemical" before the word standards in last sentence.</p> <p><b>Section 1.3</b> Changed requirement so that the DCC is responsible for ensuring the most recent version of the procedure is placed on the SESD LAN and for maintaining records of review conducted prior to its issuance. Deleted reference to the H: drive of the SESD local area network.</p> <p><b>Section 1.4</b> Added definitions for Chemical Hygiene Officer, Reference Material and Reagent.</p> <p><b>Section 1.4.3</b> Provided examples of buffers and standards for the purposes of this operating procedure.</p> <p><b>Section 1.6</b> Added reference to Quarantined Item Release Form, SESDFORM-015, most recent version.</p> <p><b>Section 2.2</b> Changed title to Field Supplies rather than Supplies.</p> <p><b>Section 2.2.1</b> Added information in second and third paragraphs about the Chemical Hygiene Officer and handling of chemical standards at the SESD laboratory.</p> <p><b>Section 2.2.2</b> Changes made to allow the BFEM to inspect and accept supplies received at the FEC. Removed requirement that the BFEM will retain a copy of all paperwork associated with the purchase. The original paperwork will be forwarded to the purchasing official by the BFEM. In order to be consistent with SESDPROC-108, changed requirement so the BFEM will compile all occurrences of unsuitable consumable supplies or services and determine what further corrective action may be necessary and notify the Field Quality Manager if deemed necessary. Previously the Branch Quality Assurance Officer compiled the list.</p>	<p>July 10, 2009</p>

<p><b>Section 2.2.3</b> Added note: Boxes containing one-time use buffers/standards do not need date box was opened. Added description of disposal of buffers and standards.</p> <p><b>Section 2.2.4</b> Added requirement that if supplies will be released for field use prior to being verified, the project leader will notify the FQM and appropriate BFEM. The project leader will fill out SESDFORM-015 (Quarantined Item Release Form) prior to taking supply items out of quarantine.</p> <p><b>Section 2.3, 2.4, and 2.5</b> These sections were added to this revision of the operating procedure.</p>	
<p>SESDPROC-015-R2, <i>Purchasing of Services and Supplies</i>, Replaces SESDPROC-015-R1</p> <p><b>Title Page</b> Changed title for Antonio Quinones from Environmental Investigation Branch to Enforcement and Investigations Branch.</p>	November 1, 2007
<p>SESDPROC-015-R1, <i>Purchasing of Services and Supplies</i>, Replaces SESDPROC-015-R0</p> <p><b>General</b> Changed title from Purchasing of Equipment and Supplies to Purchasing of Services and Supplies. Due to extensive revisions conducted by Laura Ackerman, author was changed from Sharon Matthews to Laura Ackerman. Changed header information from "Document Expires " with date and time to just date and time that document was printed.</p> <p><b>Section 1.1</b> Deleted all references to equipment. Incorporated information about purchasing services. Provided examples of services and supplies subject to this operating procedure.</p> <p><b>Section 1.2</b> Changed title from Documentation/Verification to Scope and Application. Added all text.</p> <p><b>Section 1.3</b> Changed title from Definitions to Documentation/Verification. Moved text that was previously in Section 1.2 to Section 1.3.</p> <p><b>Section 1.4</b> Changed title from Precautions to Definitions. Moved definitions that were previously in Section 1.3 to Section 1.4. Deleted definitions for Chemical Hygiene Officer and Reagent. Deleted last two sentences of definition of Verification.</p> <p><b>Section 1.5</b> Changed name from References to Precautions. Moved text that was previously in Section 1.4 to Section 1.5.</p> <p><b>Section 1.6</b> Added section 1.6.</p> <p><b>Section 2.1</b> Changed title from General to Services. Created new section to address purchasing services.</p>	October 1, 2007

<p><b>Section 2.2</b>  Changed title from Purchasing and Receiving Equipment and Supplies to Supplies.</p> <p><b>Section 2.2.1</b>  Created Section 2.2.1, Purchasing Supplies. Incorporated and modified information from previous Section 2.2, Purchasing and Receiving Equipment and Supplies. Clarified who may initiate the purchase of supplies and that paperwork for purchases will be signed by BFEMs. Added requirement that supplies will be purchased from ISO 9000 certified vendors whenever possible.</p> <p><b>Section 2.2.2</b>  Created Section 2.2.2. Incorporated and modified information form previous Section 2.2, Purchasing and Receiving Equipment and Supplies. Clarified who can receive and verify supply orders. Added requirement that BFEMs will maintain a copy of the paperwork upon receipt of supplies. Added second paragraph.</p> <p><b>Section 2.2.3</b>  Created Section 2.2.3. Incorporated and modified information from previous Section 2.3, Storing and Tracking Equipment and Supplies. No changes to procedural information that was incorporated from Section 2.3. Changes were editorial or information was moved to another section within the procedure. Incorporated information from second paragraph of Section 2.4, Identifying, labeling and Tracking Buffers/Standards. Deleted information from third paragraph.</p> <p><b>Section 2.2.4</b>  Created Section 2.2.4. Incorporated and modified information from previous Section 2.5, Buffers/Standards Traceability into second paragraph of Section 2.2.4. Incorporated information from previous Section 2.6, Traceability, Certification, and Verification Records into third paragraph.</p> <p><b>Section 2.7 and 2.8</b>  Deleted these sections and the information contained in them.</p>	
<p>SESDPROC-015-R0, Purchasing of Equipment and Supplies, Original Issue</p>	<p>March 22, 2007</p>

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# **1 General Information**

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## **1.1 Purpose**

This procedure addresses the purchasing of services and supplies whose properties could affect the quality of sampling and measurement activities. Services can include but are not limited to equipment maintenance, repair, certification, and proficiency test providers. Supplies can include but are not limited to chemical standards, chemical reagents, sample containers, disposable sampling equipment (i.e., COLIWASAs, bailers), laboratory supplies, tubing and latex gloves.

## **1.2 Scope and Application**

This procedure applies to the purchase of services and consumable supplies that are used in support of sampling and measurement activities that may affect the quality of the results generated.

## **1.3 Documentation/Verification**

This procedure was prepared by persons deemed technically competent by SESD management, based on their knowledge, skills and abilities and has been tested in practice and reviewed in print by a subject matter expert. The official copy of this procedure resides on the SESD local area network (LAN). The Document Control Coordinator (DCC) is responsible for ensuring the most recent version of the procedure is placed on LAN and for maintaining records of review conducted prior to its issuance.

## **1.4 Definitions**

### ***1.4.1 Branch Field Equipment Manager***

Staff designated by management to be responsible for ensuring that the procedures for Equipment Inventory, and Equipment and Supply Management are followed. At least one Equipment Manager will be designated for the Enforcement and Investigations Branch (EIB) and the Ecological Assessment Branch (EAB).

### ***1.4.2 Branch Quality Assurance Officer***

Branch Quality Assurance Officers (QAOs) are designated by and report to the Section Chiefs in both field branches. The Branch QAOs assist the Field Quality Manager in disseminating, reviewing, and implementing the SESD field branches quality assurance system.

#### ***1.4.3 Buffer/Standard***

A reference material whose properties have been established so that it can provide a level of performance verification. For field measurements, examples are pH buffers, specific conductivity standards, turbidity standards, and oxidation-reduction potential standards.

#### ***1.4.4 Certification***

A document issued by the manufacturer of a chemical reagent, standard or reference material that certifies its identity, concentration or purity.

#### ***1.4.5 Chemical Hygiene Officer (CHO)***

An individual assigned by SESD management to monitor procurement and use of chemicals within SESD through a Chemical Inventory Program; also advises on the special handling and disposal requirements for chemicals.

#### ***1.4.6 Reference Material***

A material with known analyte concentration and matrix type used to demonstrate that a measurement system is functioning.

#### ***1.4.7 Reagent***

Any water, solvent, gas, or chemical that potentially affects the outcome of environmental measurements.

#### ***1.4.8 Supplies***

Any materials such as calibration standards, sample containers, or disposable sampling equipment that potentially affects the outcome of environmental measurements.

#### ***1.4.9 Verification***

Visual inspection and/or testing of supplies to verify consistency with labeling and/or certification.

### **1.5 Precautions**

Proper safety precautions will be observed when handling and storing chemical supplies. Material Safety Data Sheets (MSDS) should be used for chemical specific safety requirements. Refer to the SESD Safety, Health and Environmental Management Program (SHEMP) Manual and any pertinent site-specific Health and Safety Plans

(HASPs) for guidelines on safety precautions. These guidelines, however, should only be used to complement the judgment of an experienced professional.

## **1.6 References**

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

SESD Safety, Health and Environmental Management Program (SHEMP) Manual, Most Recent Version

SESD Operating Procedure for Equipment Inventory and Management, (SESDPROC-108, Most Recent Version).

SESD Operating Procedure for Field Sampling Quality Control, (SESDPROC-011, Most Recent Version).

Quarantined Item Release Form, (SESDFORM-015, Most Recent Version).

## **2 Methodology**

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### **2.1 Services**

Purchases of services that affect the quality of field sampling and measurement activities can be originated by any employee. SESD purchases services through procurements, bank card orders, or contracts. Regardless of the mechanism utilized to purchase a service, it is the responsibility of the originator to:

1. ensure funding is available for the purchase;
2. determine the specifications for the service;
3. establish acceptance criteria for use in evaluating the service; and
4. provide source recommendations to the purchasing official.

Whenever possible, services will be purchased from vendors with quality systems comparable to the SESD field branches' (i.e., ISO 17025 compliant).

Once the purchasing documents have been completed, management will authorize and sign them and then forward the documents to the purchasing official. The purchasing official will maintain a record of all services purchased. The purchase originator will provide a copy of the purchasing documents to the appropriate Branch Field Equipment Manager (BFEM).

Following completion of the service, the purchase originator will evaluate the service based on the specification of the purchase to determine if the service was acceptable. If the service is deemed unacceptable, the purchase originator will work in conjunction with the vendor and the purchasing official to correct the problem. The purchase originator will provide the appropriate BFEM with the evaluation of the vendor. The BFEMs will maintain a list of vendors used and a notation of the evaluations.

### **2.2 Field Supplies**

#### ***2.2.1 Purchase of Field Supplies***

Supply purchases, other than chemical standards, are made using procurement requests (PR) or purchase card orders and can be initiated by any employee. The initiator of a purchase is responsible for preparing a PR or purchase card order that specifies the correct name of the item, the relevant quality criteria of the item, the item number, a quote or price, possible sources and any other associated information that helps identify the correct item to be purchased.

Once the PR or purchase card order has been prepared, the information is forwarded to the appropriate BFEM for origination of the purchase. Management will authorize and sign the order and forward it to the purchasing official. The purchasing official will ensure the order is processed according to the information on the PR or purchase card order.

For chemicals standards that are stored at the SESD laboratory and used to calibrate field meters, the purchase request should be prepared separately from other supplies. After required approvals from management, purchase requests will be routed to the Chemical Hygiene Officer (CHO). The CHO is responsible for ordering, receiving and tracking all chemicals at SESD. Upon receipt, each chemical received will be inventoried by name, Chemical Abstract Service (CAS) number, quantity, expiration date, NFPA Hazard Rating, and storage location. The CHO will then notify the BFEM of receipt and will coordinate transfer of the order to the BFEM. The CHO will track chemicals via the Chemical Inventory System throughout storage, use and disposal.

If the CHO is unavailable and there is an immediate need to place the order, the BFEM will get the required approval from management for the purchase and submit the order to the appropriate SESD purchasing representative. The SESD purchasing representative will place the order and subsequently transmit all information about the order to the CHO.

Whenever possible, the field branches will purchase supplies of chemical standards from ISO 9000 certified vendors.

### ***2.2.2 Receipt of Field Supplies***

Anyone can accept delivery of supply orders. For purchases received at the SESD laboratory, the BFEM will inspect the items to ensure they comply with the PR or purchase card order. If the items are acceptable, the BFEM will sign and date the invoice that accompanied the order and any other required documentation. For purchases received at the Field Equipment Center, contract personnel or the BFEM will inspect the items to ensure they comply with the PR or purchase card order. If the items are acceptable, the contract personnel or BFEM will sign and date the invoice that accompanied the order and any other required documentation. The original paperwork will be forwarded to the purchasing official.

If any supplies prove to be unsuitable for use, the BFEMs will document the issue in an email to the appropriate Branch Quality Assurance Officer (QAO). The documentation should include a description of the item, the deficiency and the vendor. The BFEM will compile all occurrences of unsuitable consumables, supplies or services and determine what further corrective action may be necessary and notify the Field Quality Manager if deemed necessary.

### **2.2.3 Storage of Field Supplies**

Upon acceptance, supplies will be stored either at the SESD laboratory or the Field Equipment Center (FEC). An inventory of consumable supplies, such as sample containers, buffers/standards, latex gloves, and tubing will be maintained by the Branch Field Equipment Managers. The inventory will be examined periodically, to identify supplies to be ordered.

All buffers/standards will be labeled with the chemical/reagent name, the material's concentration, manufacturer or vendor, lot number, and expiration date. Chemical hazard information is addressed in Material Safety Data Sheets (MSDSs). Buffers/standards will be managed to prevent contamination. Buffers/standards that have been found to be improperly stored or have exceeded the manufacturer's expiration date and are no longer suitable for use will be removed from service and disposed of by pouring them down the sink drain in one of the SESD laboratories or at the FEC as long as the pH is greater than 2 or less than 12.5. Otherwise, the SESD Hazardous Waste Control Officer should be consulted for disposal instructions.

### **2.2.4 Verification of Field Supplies**

SESD will ensure that supplies are not used until they have been inspected or otherwise verified as complying with SESD Quality Assurance requirements. If supplies will be released for field use prior to being verified, the project leader will notify the FQM and appropriate BFEM. The project leader will fill out SESDFORM-015 (Quarantined Item Release Form) prior to taking supply items out of quarantine.

National Institute of Standards and Technology (NIST) traceable buffers/standards and reagents will be used whenever possible. Certificates of traceability will be obtained for all NIST traceable buffers/standards and reagents. All buffers/standards and reagents will be tested prior to use and the test results will be compared to those of similar materials from independent sources or lots for verification. A record of the tests and the results will be maintained at either the FEC or the SESD laboratory, depending on the storage location.

Verification of supplies such as sample containers, disposable sampling equipment (e.g., COLIWASAs, bailers), latex gloves, and tubing is conducted as described in the SESD Procedure for Field Sampling Quality Control (SESDPROC-011). In general, rinse blanks are collected for each lot number in an order for sample containers, latex gloves and tubing. The blanks are analyzed for relevant contaminants and the data is evaluated by the EIB QAO prior to releasing the items for use during field investigations. The EIB QAO is responsible for maintaining records of the results of the verification of sample containers, latex gloves, and tubing.

## 2.3 Laboratory Supplies

### 2.3.1 Purchase of Laboratory Supplies

For consumable laboratory supplies, the purchase request is prepared by the analyst and must be authorized by management. The purchase request is then forwarded to the purchasing official. The purchasing official will ensure the order is processed according to the information on the PR or purchase card order. Purchased supplies can be accepted by the PR initiator, the SESD ordering official, or the SESD mail room attendant. The initiator inspects the item to ensure consistency with the PR and packing slip. Inconsistencies will be brought to the attention of the ordering official for correction. Once the item is deemed consistent with the PR, the receiver dates and initials the packing slip and forwards the packing slip to the ordering official.

If any supplies prove to be unsuitable for use, the person making that determination shall document the issue in an email to the appropriate Branch Quality Assurance Officer (QAO). The documentation should include a description of the item, the deficiency, and the vendor. The Branch QAO will compile all occurrences of unsuitable supplies and determine what further corrective action may be necessary and notify the Field Quality Manager if deemed necessary.

For chemicals, the purchase request should be prepared separately from other supplies. After required approvals from management, purchase requests will be routed to the Chemical Hygiene Officer (CHO). The CHO is responsible for ordering, receiving and tracking all chemicals at SESD. Upon receipt, each chemical received will be inventoried by name, Chemical Abstract Service (CAS) number, quantity, expiration date, NFPA Hazard Rating, and storage location. The CHO will then notify the requestor of receipt and will coordinate transfer of the order to the analyst/initiator. The CHO will track chemicals via the Chemical Inventory System throughout storage, use and disposal. Reagents which are not deemed hazardous, critical to the success of the analysis, or those that are used in negligible quantities do not have to be tracked. For example, acids and solvents used in rinsing glassware prior to use typically would not require reagent traceability.

If the CHO is unavailable and there is an immediate need to place the order, the requestor will get the required approval from management for the purchase and submit the order to the appropriate SESD purchasing representative. The SESD purchasing representative will place the order and subsequently transmit all information about the order to the CHO.

### ***2.3.2 Storage of Laboratory Supplies***

Requestors are responsible for insuring that all chemicals are maintained within the designated storage areas. Storage location choice will take into consideration any special storage requirements to maintain the physical integrity and safety of the material. The Hazardous Materials Building serves as temporary storage for bulk shipments of acids and solvents until the individual containers are needed by personnel. The CHO must be notified and all tracking documentation updated if the materials need to be moved and/or stored in a different room within the SESD. Notification of the CHO is not required when acids and solvents are transferred from the Hazardous Materials Building to a laboratory. For laboratories containing flammable solvents, the maximum allowable amount is posted in the laboratory and may not be exceeded. Because of fire safety considerations it is acceptable to have less than the posted amount, but never more. For other chemicals, the maximum amount is determined by the volume which can be stored and used within a reasonable amount of time within an individual laboratory. If a new chemical needs to be added to the inventory or if inventories must be increased, this must be coordinated with the CHO. Chemical supplies found to be improperly stored will be removed from service by the user if the integrity is undermined. Reagents, chemicals, solvents, and standard reference materials (excluding high demand items) should be purchased in small quantities to minimize extended shelf storage.

### ***2.3.3 Identifying and Labeling***

The CHO and analysts will ensure that chemical standards, reagents, and reference materials are uniquely identified and correctly labeled. Labels on all chemicals will include the name, concentration, manufacturer or vendor, lot number, date received, date opened and expiration date. Specific hazard information for each chemical is addressed in its MSDS, which should be kept in the laboratory in which the chemical is used.

Labels on stock and intermediate chemicals will show the chemical name, and either reflect or be traceable to its concentration, manufacturer or vendor, lot number, date opened/prepared or expiration date, special storage conditions and hazard warnings. Additional chemical hazard information is specifically addressed in the MSDS, and generally addressed in the SESD annual laboratory safety training.

### ***2.3.4 Verification of Laboratory Supplies***

The quality of chemicals, reagents, solvents, and standards used in the laboratory is determined by the sensitivity and specificity of the analytical techniques being used. Reagents of lesser purity than specified by a method will not be used. When not specified by the method, analytical reagent grade materials should be used.

Suitability of routine reagents is documented through method blanks. A clean method blank documents that all reagents used in the associated batch were suitable for use. A contaminated method blank requires corrective action to determine whether the contamination is the result of unsuitable reagents, or contamination introduced in the sample handling process.

Where integrity may be compromised or in question, or when no certificate of analysis is available, chemical standards and reference materials will be tested and the test results compared to those of similar materials from independent sources for verification.

## **2.4 Records**

Records shall be maintained on reagent, standard and reference material preparation. These records shall indicate traceability to purchased stocks, reference to the method of preparation, date of preparation, expiration date and preparer's initials. A unique ID shall be assigned to each prepared reagent and standard. Procedures for achieving traceability are documented either in the individual method SOPs or stand-alone procedure documents for procedures which may apply across a variety of methods. The unique ID and expiration date shall be recorded on each standard container. The preparation date shall be recorded on each reagent container. A cross-reference to the Element ID shall be recorded in standard preparation records and on the certificate-of-analysis.

## **2.5 Chemical Disposal**

Chemicals will be disposed of in accordance with the SHEMP Manual. The CHO will track chemicals via the Chemical Inventory throughout storage, use and disposal.