

<p><b>Volume III</b>  <b>Other Laboratory Operations</b>  Section 2 – Chain of Custody – Sample Handling</p>	<p><b>ORA LABORATORY MANUAL</b>  FDA Office of Regulatory Affairs  Division of Field Science</p>	<p>DOCUMENT NO.: III-2  VERSION NO.: 1.7  FINAL  EFFECTIVE DATE:  4/17/04  Revised:  01-17-12</p>
<p><b>Section 2 Chain of Custody – Sample Handling Section 2</b></p>		

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## 2.1 Introduction

The FDA national procedures for sample management are found in ORA Laboratory Manual, Volume II, ORA.LAB.5.8 Sample Management. This document provides additional sample chain of custody work instructions for such operations as laboratory receipt of sample, storage, protection, opening the sample package, handling split samples, shipment of samples, and disposition.

Field Accomplishments Compliance Tracking System (FACTS) centralizes the data gathered by Office of Regulatory Affairs (ORA) into one nation-wide system. FACTS is therefore recognized as the Food and Drug Administration's (FDA) automated system for field assignments, analytical results, firm information, compliance actions, and time reporting. FACTS manages assignments and work results for the following laboratory activities: sample accountability, analytical reporting, analyst time reporting and sample dispositions. FACTS is the primary means for documenting sample transfers between the sample collector, sample custodian, and the analyst or the secondary laboratory. FACTS, coupled with writing the analytical worksheet, will be an essential part of reporting analytical information on all work products.

Basic FACTS training is provided by local FACTS cadre or an identified training unit during the analysts training period.

### 2.1.1 Sample Documentation

Laboratory receipt of samples is documented in FACTS. The method of documenting the laboratory receipt of samples is dependent on the following:

- sample has been entered into FACTS for sample analysis prior to arriving at the laboratory;
- sample has not been entered into FACTS for sample analysis prior to arriving at the laboratory, or
- sample has been entered into FACTS for storage only.

If a sample has not been entered into the FACTS database prior to arriving at the laboratory, the sample accountability procedures can not be performed (e.g. laboratory receipt, sample transfer). Sample analysis can proceed only with management approval and special circumstances (e.g. when the nature of the sample dictates that withholding

such analysis will seriously affect the product causing microbial growth, deterioration or contamination, or immediate results are needed due to an emergency situation).

## 2.1.2 Definitions

**Analyst** - The term “Analyst” applies to all professional and paraprofessional positions associated with the analytical operation of the laboratory.

**Analytical package** - The Analytical package consists of the Analytical Worksheet and other documents directly related to the sample (e.g. collection report, memorandum of analysis).

**Controlled areas** – Controlled areas are designated areas that contain information or material requiring additional protective measures and strict access controls. These areas may store pharmaceuticals, alcohol, samples, or be a document/computer room. Authorized personnel are allowed only in controlled areas.

**Controlled drugs and substances (Schedule I and II)** – Controlled drugs and substances (scheduled I and II) are designated by the Controlled Substance Act as amended to 21 Code of Federal Regulations (CFR) 1308.11-12, April 2003.

**FACTS** – FACTS is the FDA acronym for the Field Accomplishments and Compliance Tracking System.

**Laboratory supervision** – Laboratory supervision includes managerial positions from the First-Line Supervisor to the Laboratory Director.

**Official Sample (21 CFR 2.10)** - An official sample is one taken from a lot for which Federal jurisdiction has been established. If violative, the official sample provides a basis for an administrative or legal action. Official samples generally consist of “goods,” or a physical portion of the lot sampled, but not always. Official samples are further classified according to the manner in which they are collected, how Federal jurisdiction is established, and their intended use or purpose.

**Sample accountability** - The term “sample accountability” includes requirements for proof of sample receipt, storage, transfer of sample or sample portions between individuals, analysis, disposition authorization and destruction. Records covering these transactions are part of the regulatory file. A permanent FACTS record achieves uniform accountability for samples in the FDA/ORL laboratory system. See ORL Laboratory Manual, Volume II, ORL.LAB.5.8 Sample Management.

**Sample custodian** – The Sample custodian refers to person(s) granted the role of Sample Custodian within FACTS. The Sample custodian refers to the person(s) responsible for

receiving all samples into the laboratory, both physically and electronically in FACTS, from the collector and assures the samples are stored under the appropriate environmental conditions until such time as the sample is transferred to the analyst to whom it is assigned. The Sample custodian also ensures proper disposition of all samples in FACTS, whether or not the sample is analyzed.

Samples – Samples are identified as all items, both domestic and import, collected and identified as Official Samples. Import samples need not be sealed, unless District Policy dictates, as long as the integrity of the sample is maintained. (See Investigators Operations Manual, IOM Chapter 4, Official Samples, and Section 2.10 References)

- 702(b) Portion. - In accordance with the provisions of Section 702(b) of the FD&C Act, a portion of an official domestic sample collected directly from the manufacturer or if requested under other circumstances, is to be available for examination or analysis by any person named on the label of the article, or the owner thereof, or his attorney or agent. The two exceptions to this regulation are Medical Devices and Import Samples. Medical devices are not specifically referenced in 21 CFR 2.10(b) and samples being imported or offered for entry into the United States are exempt under 21 CFR 2.10(b)(4).

The sample, no matter what the content, may be involved in a court proceeding, and therefore must be preserved by the best means possible. Preservation must be effective until any legal or regulatory proceedings are terminated.

## 2.2 Protection and Storage of Samples in the Laboratory

### 2.2.1 Physical Security of FDA/ORL Laboratory Facilities

The General Services Administration (GSA) has established government-wide minimum physical security standards for federal facilities. Due to the differences found in federal facilities, (e.g. size of the facility, number of employees, use and mission of the agencies) there are five security levels based on minimum standards for each security level. The categories range from Level I (e.g. a leased space with ten or fewer employees) to level V (e.g. a large building with many employees and a critical national security mission as found in the Pentagon).

The FDA Physical Security Staff (HFA-204) maintains a database for all FDA facilities, their assigned security level, and the physical security standards associated with each security level.

The FDA Staff Manual Guide f:2280.2, Physical Security in Field Activities, <http://inside.fda.gov:9003/PolicyProcedures/StaffManualGuide/VolumeIIIGeneralAdministration/ucm007448.htm> provides additional instructions for physical security in FDA

field offices. This includes building security, protection of official samples, visitor control, document security, controlled substances (Schedule I and II), alcohol (95% and absolute) and other laboratory items such as platinum dishes, United States Pharmacopoeia (USP) reference standards, National Institutes of Standards Technology (NIST) test weights, and syringes (1 mL to 20 mL).

### **2.2.1.1 Controlled Areas**

The following areas are designated as controlled areas within the laboratory and need additional protective measures to ensure the integrity of the security interest involved:

- Drug vault/storage area;
- Solvent storage area;
- Alcohol storage area;
- Sample storage area;
- Radioactive Material Area;
- Infectious Materials Room;
- Sterility Testing Room;
- PCR Room;
- Document room;
- Computer room; and
- Mail room

For these controlled areas, the following additional protective measures are provided:

- Access is limited to only those employees who need access in the performance of their official duties.
- Entrances are secured at all times or monitored by an authorized employee or security guard.
- Doors are equipped with high security locks or card readers with alarm contacts. High security locks are keyed “separately” from the building master key system. Card readers are keyed “alike.”
- Controlled areas are cleaned only during normal working hours and under the supervision of an authorized employee or security guard.
- Locks or their combinations are changed if the key or combination has been compromised, if the area has been discovered unsecured or unattended, or when an employee no longer needs access due to transfer, termination, retirement.

## 2.2.2 Security of Samples and Controlled Substances in the Laboratory

### 2.2.2.1 Custodial Storage of Samples

The sample custodian is responsible for the initial and final stages of sample storage. Samples are secured in a storage area where additional security measures can be effectively implemented in accordance with Section 2.2.1.1 Controlled Areas.

### 2.2.2.2 Analyst Storage of Samples

The analyst is responsible for the integrity, security, and proper handling of the sample while it is in his or her possession. All portions of the sample in the analyst's possession are kept in locked storage (e.g., analyst's lockable cabinet) when not under the analyst's control. The analyst can use temporary seals when appropriate.

### 2.2.2.3 Temporary Sealing of Samples

When locked storage is not possible (e.g. sample needs refrigeration and is stored in an unlocked, "common" laboratory refrigerator overnight), a *temporary seal* is used to demonstrate that sample integrity was maintained. The temporary seal is an Official Seal (FDA-415a) used for securing a sample for a short period. When the temporary seal is broken, the seal is initialed and dated.

The temporary seal and the following information are submitted with the worksheet:

- the fact a temporary seal was used,
- how the temporary seal was used, and
- the quoted temporary seal.

### 2.2.2.4 Import Samples

Import Samples are Official Samples and require the same integrity as domestic Official Samples. Import Samples need not be sealed, unless District Policy dictates, as long as the integrity of the sample is maintained. (See Investigations Operations Manual, IOM Chapter 4, Subchapter 4.1.4 - Official Samples)

### 2.2.2.5 Controlled Substances (Schedule I and II drugs)

Controlled substances are secured in a drug storage vault/area where additional security measures can be effectively implemented in accordance with Section 2.2.1.1 Controlled Areas. After issuance, additional security controls, (e.g. sample storage, inventory) are implemented.

### 2.2.3 Environmental Storage Conditions for Samples

When a sample custodian or analyst receives a sample for analysis, he or she assures that the product is provided proper environmental storage. Samples are stored at frozen, refrigerated, or ambient temperatures, depending on the type of sample and the analysis that is being conducted.

Environmental storage conditions are in accordance with those instructions:

- received with the sample,
- described in the FACTS record for the sample, or
- instructed by the Laboratory Supervisor or Analyst.

Samples are maintained at the following temperatures:

- frozen samples are maintained at -28 to -18 °C;
- refrigerated samples are maintained at 2 to 8 °C; and
- ambient samples should be protected from heat and moisture.

Refrigerated and frozen sample storage location temperatures are recorded daily. Various temperature measurement devices (e.g. calibrated thermometers, thermocouples interfaced with computer systems and temperature recorders) may be used to monitor temperature control. All sample storage temperature information is recorded daily on temperature monitoring forms in accordance with the laboratory's local Standard Operating Procedures (SOP) or work instructions. See ORA Laboratory Manual, Volume II, ORA.LAB 5.3 Facilities and Environmental Conditions for general laboratory requirements.

## 2.3 Custodial Receipt and Storage of Samples

Samples are delivered to the FDA laboratory receiving area, (e.g. FedEx®, UPS®, Airborne®, FDA or state personnel, and other private courier).

Any chain of custody form (e.g. from the Office of Criminal Investigations) received with the sample follows the sample records throughout the laboratory.

It is the responsibility of the person receiving physical custody of the sample to initiate the original record of sample receipt. The sample custodian receives the majority of samples delivered to the laboratory. Occasionally, an analyst or supervisor may receive a sample into the laboratory. Only those designated with the FACTS sample custodial role may electronically receive and sign for the laboratory receipt of the sample within FACTS. If the sample is received in the laboratory by someone who does not possess the role of Sample Custodian, the receipt of the sample must be documented.

If FACTS is unavailable (e.g. computer server is down) at the time of laboratory receipt of the sample, the laboratory uses its Computer Contingency Plan in order to document sample receipt and handling operations.

All samples should be kept in their original shipping container until ready to be entered into FACTS by the Sample Custodian. Frozen samples should be priority to avoid thawing. Sample packages are inspected during laboratory receipt processing to assure the following:

- physical condition is satisfactory,
- official seal (if present) is unbroken, and
- identification on the sample package matches that described in the accompanying records and/or in the FACTS “Collection Report” record.

Immediate action is taken to document and reconcile any discernible abnormalities and/or discrepancies such as the following:

- conflicting sample numbers,
- broken seals,
- breakage, and
- leakage or thawing.

Abnormalities and/or discrepancies are documented using the Laboratory’s Complaint/Corrective Action procedures. The sample is placed on hold pending resolution of the non-conformance.

The sample custodian (or designee) completes laboratory receipt and custodial storage of the sample by recording the relevant information in the FACTS “Lab Receipt of Sample” record.

Stored samples are provided the physical security measures as described in the Section 2.2.1.1 Controlled Area and Section 2.2.3 Environmental Storage Conditions for Samples.



## 2.4 Receiving Samples from Custodial Storage and Opening the Sample Package

### 2.4.1 Receiving Samples from Custodial Storage

When needed for laboratory use, the Analyst obtains a stored sample from the sample custodian, and the transfer of the sample is documented using FACTS.

The analyst verifies that the physical sample received matches that described in the Sample Packages section of the FACTS “Lab Receipt of Sample” record. Any observed discrepancies (e.g., package number, condition, seal inscription, seal condition) are documented using the Laboratory’s Complaint and Corrective Action Procedures.

The analyst verifies that the physical sample received matches that described in the FACTS “Sample Transfer” record. Any discrepancies (e.g., quantity, unit, split number) between the sample and that described in the FACTS “Sample Transfer” record are immediately reported to the sample custodian. Discrepancies are reconciled and, if needed, the FACTS record is corrected.

If FACTS is unavailable, (e.g. computer server is down) at the time of the sample transfer, the laboratory uses its Computer Contingency Plan in order to document the sample transfer operations.

### 2.4.2 Opening the Sample Package

After receiving custody of a sample, the analyst performs the following functions:

- breaks the Official Seal (if present); and
- opens the package, and inspects the sample.

#### 2.4.2.1 Breaking Official Seals

For samples, Form FDA-415a is the Official Seal. A numbered self-locking “US Food and Drug” metal seal may be used where a paper seal is not possible or practical. This seal is effective for use on metal drums and baskets where the FDA-415a cannot be used.

Once the sample is packaged for transport to its designated laboratory, it is sealed so that it cannot be opened at any point without evidence of tampering.

The Investigations Operations Manual (IOM) Chapter 4, Subchapter 4.5.4 Official Seals, discusses the following:

- application of official seals,
- sealing methods,
- protecting the official seals,
- broken official seals and temporary seals, and
- metal seals.

The seal is initialed and dated in ink in the space provided and, when possible, is broken across the section showing the sample number, date, and signature. In the designated area at one end of the paper seal, it is initialed and dated in ink by the analyst and broken across the section showing the sample number, date and signature of the Collector. It is acceptable to break the paper seal in another location, if necessary. See IOM Exhibit 4-17. When breaking a metal seal, a sharp metal tool is used to scratch initials and date on the seal.

Generally, original seals are not to be removed from the sample package. If removed, the broken seal is submitted with the Analyst Worksheet as an attachment, and the fact the original seal is submitted is quoted on the Analyst Worksheet, Item 11, Reserve Sample. The entire seal, with the investigator's inscription, analyst's initials, and dates, easily visible, are attached to mounting paper. The mounting paper is identified with the Attachment number, sample number, date, and initials in the upper right corner. See ORA Laboratory Manual, Volume III, Section 3.3, Completing Worksheets and Continuation Sheets.

#### 2.4.2.2 Opening the Package and Inspecting the Sample

After breaking the Official Seal (if present) and opening the package, the analyst removes and inspects the sample.

Using the Laboratory's "Complaint/Corrective Action" Procedure, the analyst documents any discernible abnormalities, discrepancies, and problems such as the following:

- discrepancies between the sample received from the sample described in the FACTS "Collection Report" or any other record,
- broken paper seals without initials or date in the designated area,
- damaged sample or sample package,
- records failing to describe type of analysis requested, and
- sample inappropriate for sample analysis requested.

The report is immediately forwarded to his/her Supervisor for follow-up.

## 2.5 Intra/Inter Laboratory Splitting and Transferring of Samples

### 2.5.1 Splitting and Transferring Samples within the Laboratory

A split/transfer of a sample occurs when a sample requires an additional analysis to that performed by the original analyst. If the sample will be analyzed in its entirety at the designated servicing laboratory, an intralaboratory split/transfer is performed in FACTS.

If the original analysis is complete, the entire sample may be transferred to the next analyst for the additional analysis. If the original analysis is not complete, the sample may be split into smaller portions. Of these smaller portions, one portion will be analyzed by the original analyst and the “split” portion will be transferred to the next analyst who will perform the additional analysis.

#### 2.5.1.1 Recording the Sample Transfer on the Analytical Worksheet

To ensure sample integrity, information regarding delivery and receipt of samples or sample portions is recorded on the analyst worksheet, FDA 431, as follows:

- Sample description and amount delivered (Blocks 7 and 8);
- Sample identification (Block 2);
- Date (Block 4);
- Name of analyst(s) involved in the sample exchange (Block 5), and;
- Brief explanation of the reason for transfer (on 431 or 431a).

#### 2.5.1.2 Recording Sample Transfer through FACTS

The FACTS “Sample Transfer” “In-House Split” operation documents intralaboratory sample splits. The “In-House Split” is initiated by the original Analyst. A unique alphanumeric identification will be added after the sample number for each sample portion assigned to Analysts within the same laboratory. The “In-House Split” allows each analyst to independently return the reserve portion to the sample custodian, or dispose of appropriately. These individual transactions are documented in FACTS

## 2.5.2 Splitting and Transferring Samples between FDA/ORALaboratories or External (Non-ORA) Entities

If additional analysis of a sample will be performed at a facility other than the designated servicing laboratory, an interlaboratory split/transfer is performed in FACTS.

A sample that needs an additional analysis performed by a second FDA/ORA laboratory or external entity (e.g. non ORA contract laboratory for specialized testing, return of a claimant's sample) may be split into smaller portions and shipped.

For samples that are split between FDA/ORA laboratories, each examining laboratory handles and describes its portion of the sample as an original analysis. The original servicing laboratory retains an intact 702(b) portion, when required. The receiving laboratory is informed of the amount retained as the 702(b) portion.

### 2.5.2.1 Recording the Sample Transfer on the Analytical Worksheet

Documentation on the analyst worksheet includes the following:

- description of sample and amount delivered,
- how it was prepared for delivery,
- how it was identified and sealed,
- brief explanation as to why the sample was sent,
- to whom the sample was sent and,
- date of shipment.

### 2.5.2.2 Recording Sample Transfer through FACTS

The FACTS "Sample Transfer" "Split" operation documents this operation. The "Split" will add a unique alphanumeric identification after the sample number for each sample portion that is split or transferred within the laboratory.

The FACTS "Sample Transfer" "Split" operation documents sample splits. This operation is performed by the original servicing laboratory and documents the sample splitting between the original servicing laboratory and another ORA facility or an external entity.

## 2.6 Reserve Samples

At the conclusion of the analysis, the analyst annotates the status of the reserve sample on the worksheet and prepares the reserve sample for storage or shipment.

The samples are returned to the sample custodians. Exceptions include the following circumstances:

- analyst has received permission in advance from laboratory supervision to effect immediate In-House Disposition of the sample (see 2.9 Disposition of Samples),
- entire sample has been consumed during analysis, and,
- reserve sample needs special environmental storage or handling conditions not found in the sample storeroom.

The reserve sample consists of any remaining FDA portion and exhibits associated with an Official Sample (e.g. Investigator/Inspector filth exhibits and Analyst filth analysis plates), and the 702(b) claimant's portion. Section 702(b) of the FD&C Act requires '...upon request, provide a part of such official sample for examination or analysis by any person named on the label of the article, or the owner thereof, or his attorney or agent....' A domestic sample collected directly from a manufacturer may not be used in its entirety, as an analyst is not authorized to use a 702(b) claimant's portion.

Each portion of the reserve sample should remain in its original container, if possible, and, if appropriate, officially sealed using FDA-415a. The sample is then returned to the sample custodian for storage until the sample is dispositioned. If a seal is placed on the reserve sample, the seal is quoted on the Analyst Worksheet, FDA 431, Reserve Sample.

### 2.6.1 Sealing the Reserve Samples

The reserve portion of samples is officially sealed using FDA-415a prior to being returned to the sample custodian. The seal is affixed so that it actually seals the sample package and the sample package cannot be opened without any evidence of tampering. More than one seal may be needed. The original broken seal is not to be defaced or hidden when resealing a sample. All seals must be visible to provide a continuity chain. The Investigator's seal on the sample, the Analyst's information on the broken seal and the Analyst's seal(s) on the sample should all be visible should the sample be introduced as a court exhibit

### 2.6.2 Documenting the Reserve Samples

For accountability purposes, a clear description of the reserve sample, including the 702(b) claimant's portion (if present), is documented on the analyst worksheet. The amount of reserve sample remaining is compatible with the amount received and the amount used in the analysis; any discrepancies are explained on the analyst worksheet.

If no physical sample or exhibits remains:

- Analyst records “NONE” or “NO RESERVE” on the Analyst Worksheet, Item 11, Reserve Sample, and, if applicable, documents the sample disposition in the FACTS “In-House Disposition” record.
- If a sample is received with an official seal, and no reserve portion remains, the analyst must include the broken official seal in the worksheet package.

Conditions where no reserve sample remains are usually confined to no action indicated (NAI) import and NAI perishable samples where the supervisor has concurred in immediate destruction.

If the entire FDA portion of the sample has been used in the analysis, an analyst may be instructed by a supervisor to return the empty container(s) under an official seal to the sample custodian for possible use in court.

## 2.7 Returning Samples to Custodial Storage

The laboratory reserve sample is kept until all legal or other action requiring the sample is closed. The reserve sample consists of the remaining FDA portion, and, if applicable, exhibits and the 702(b) claimant’s portion.

Upon completion of the analysis, the Analyst returns any remaining sample reserve to the Sample Custodian for storage, unless the reserve needs storage conditions not under the control of the Sample Custodian. (e.g. storage in the laboratory).

### 2.7.1 Returning Samples to the Sample Custodian

For those samples returned to the sample custodian, the sample custodian and the analyst document the transfer of the sample in FACTS.

The sample custodian verifies that the physical sample received matches that described in the FACTS “Sample Transfer” record. Any discrepancies (e.g. quantity, unit) between the physical sample and the sample description in the “Sample Transfer” record are immediately reported to the analyst. Discrepancies are reconciled and, if needed, the FACTS record is corrected. The sample custodian updates the sample storage location in the FACTS “Sample Transfer” record.

### 2.7.2 Returning Samples to Storage Areas not Controlled by the Sample Custodian

Special storage may call for all or a portion of the sample or exhibits to be stored in areas not controlled by the sample custodian (e.g. the laboratory). If the reserve sample is not

returned to the sample custodian, the following documentation is recorded on the Analyst Worksheet, Block 11, Reserve Sample:

- location and environmental conditions where the reserve is stored;
- an explanation why the sample was not returned to the sample custodian for storage; and,
- amount of sample stored.

## 2.8 Shipping Samples from the Laboratory

Samples or portions of samples thereof are shipped from the FDA/ORA laboratory facility by various means. All shipment information is documented by the sample custodian or their designee in FACTS.

The individual circumstance will dictate whether the entire sample or only a portion of the sample is shipped. The sample custodian is generally responsible for shipment of samples to other facilities. He or she assures that the sample is packaged in a manner that maintains its integrity. If the sample custodian is uncertain how a sample should be packaged for shipment, a supervisor or analyst is consulted.

When a 702(b) portion of a sample is to be shipped to a claimant, an FDA portion shipped to another laboratory, or a complaint sample is returned to the consumer, the sample custodian proceeds only with electronic or written authorization from laboratory management.

Samples are shipped from the FDA/ORA laboratory facility by various means, (e.g. FedEx®, UPS®, Airborne®, FDA personnel, or personal deliveries such as the sample custodian to the local police).

### 2.8.1 Shipping the Entire Sample

Preparation and shipment of the entire sample depends upon whether the sample:

- is stored in the sample storage area under the custody of a sample custodian; or
- is in the custody of an analyst.

#### 2.8.1.1 Sample is Stored in the Custodial Storage Area

If the sample to be shipped is in the sample storage area, the sample custodian retrieves the sample from the storage area, packs the sample for shipment, and ships the sample following the laboratory's local SOP or work instruction(s) for shipping samples.

### 2.8.1.2 Sample is in the Custody of the Analyst

If the sample to be shipped is in the custody of the analyst, the analyst prepares the sample for shipment.

The analyst returns the sample to be shipped to the sample custodian following the procedure described in Section 2.7, Returning Samples to Custodial Storage.

The sample custodian packs the sample for shipment, and ships the sample following the laboratory's local SOP or work instruction(s) for shipping samples. The sample custodian ships the sample in accordance with carrier and federal regulations, i.e., dangerous goods, infectious substances, hazardous materials..

## 2.8.2 Shipping a Portion of the Sample

For the preparation and shipping of a portion of the sample to a claimant or another laboratory, an analyst prepares the portion for shipment. Preparation and shipment of the portion depends upon whether the sample:

- is stored in the sample storage area under the custody of a sample custodian, or,
- is in the custody of the analyst.

### 2.8.2.1 Samples Stored in the Custodial Storage Area

Samples that are stored in the sample storage area are obtained by the analyst from custodial storage following procedures described in Section 2.4 Receiving Samples from Custodial Storage and Opening the Sample Package. If the sample had previously been analyzed by the laboratory, the analyst whose name appears on the seals(s) of the Reserve Sample (if applicable) obtains the sample, prepares, and seals the portion for shipment.

After receiving custody of the sample, the analyst breaks the official seal and opens the sample package following the procedure described in Section 2.4 Receiving Samples from Custodial Storage and Opening the Sample Package. The analyst splits the sample into portion(s) and documents the split by following the procedure described in Section 2.5 Intra/Inter Laboratory Splitting and Transferring of Samples. Additionally, the analyst documents the process of breaking seals, preparing samples, and describing the reserve sample on a new Analyst Worksheet. The worksheet is processed through normal channels to become an addition to the original worksheet.



The analyst prepares the portion(s) for shipment. The analyst returns the portion of the sample to be shipped to the sample custodian following the procedure described in section 2.7 Returning Samples to Custodial Storage.

The sample custodian packs the sample portion for shipment, and ships the portion in accordance with federal regulations. The sample custodian documents shipment of the sample following the procedures described in Section 2.8.3 Documenting Sample Shipment.

### 2.8.2.2 Samples in the Custody of the Analyst

The analyst splits the sample into portions following the procedure described in Section 2.5 Intra/Inter Laboratory Splitting and Transferring of Samples.

If the sample being prepared for shipment is in process, the analyst states the following on the Analyst Worksheet:

- sample description, sample provided, and amount;
- how it was prepared for delivery;
- sample identification (description of seal, if appropriate);
- brief explanation as to why the sample was sent;
- to whom the sample was sent; and,
- date of shipment.

If the sample being prepared for shipment is a reserve sample that has not been returned to the sample custodian due to special storage (refer to Section 2.7, Returning Samples to Custodial Storage), a new Analyst Worksheet is initiated to document the following:

- the process of breaking seals (if applicable),
- preparing the sample portions,
- sample description and amount provided,
- to whom the sample was sent,
- how the sample was sent for delivery,
- short explanation why the sample portion was sent, and
- description of the reserve sample.

The worksheet is processed through normal channels to become an addition to the original worksheet.

The analyst prepares the portions for shipment. The analyst returns the now split portions of the reserve sample to the sample custodian following the procedure described in Section 2.7 Returning Samples to Custodial Storage.

The sample custodian packs the sample portion identified for shipment, and ships the portion in accordance with carrier and federal regulations, i.e., dangerous goods, infectious substances, hazardous substances. The Sample Custodian documents shipment of the sample following the procedures described in Section 2.8.3 Documenting Sample Shipment.

### 2.8.3 Documenting the Sample Shipment

The Sample Custodian (or designee) documents the shipment of samples or sample portions by entering the information into FACTS.

## 2.9 Disposition of Samples

Once all legal action requiring the sample is concluded, the sample custodian receives notification for disposition of the sample. Sample disposition notification is initiated through FACTS. Additional sample disposition notification may be provided through written authorization from the laboratory supervision. Upon receipt of the sample disposition notification, the sample is removed from its place of storage and destroyed within thirty (30) days.

The sample custodian or other personnel as directed by the laboratory management perform sample destruction. When any portion or the entire reserve sample is stored in a location other than the custodial storage area, the analyst may be assigned to destroy the sample.

### 2.9.1 Sample Destruction

Sample destruction entails destroying and denaturing the entire reserve sample to the point the material is rendered unusable. The manner of destruction will depend on the individual sample. Destruction processes that minimally impact the environment are considered. Methods such as incineration, de-characterization, chemical destruction, landfill disposal, and autoclaving can be used. Immediate sample containers are empty when placed in a waste receptacle. Sample destruction is conducted in accordance with the laboratory hazardous waste management plan, applicable biosafety guidelines, and general safety precautions.

Controlled drugs (CRx/DEA) regulations require the destruction of CRx/DEA controlled drugs must be witnessed by a designated Supervisor. The person assigned to perform the

sample disposition must contact the laboratory management if there is any question to the method.

Destruction or other authorized disposition is the last step in accountability for the physical sample. FACTS documents sample destruction; only the sample custodian, or those designated with this role within FACTS, may complete and document the disposition of the sample through the FACTS “Sample Disposition” record.

## 2.9.2 In-House Disposition of Reserve Samples

In certain instances, the Analyst may destroy the Reserve Sample prior to receiving official notification through FACTS authorizing sample disposition. Conditions where no Reserve Sample remains are usually confined to NAI import and NAI perishable samples where the laboratory supervisor has concurred in immediate destruction. The Analyst documents the In-House destruction on the Analyst Worksheet, Reserve Sample and in the FACTS “In-House Sample Disposition” record.

With the approval of the Laboratory or Compliance Branch Director, the Reserve Sample may be used for FDA purposes rather than destroyed (e.g., research, working standard, exhibit). In these instances, sample numbers are removed or obliterated to avoid potential confusion with samples that are in-progress.

## 2.10 References

- U.S. Food & Drug Administration, Office of Regulatory Affairs, Division of Field Investigations. Investigations operations manual or the website address, <http://www.fda.gov/ICECI/Inspections/IOM/default.htm>
- U.S. Food & Drug Administration, Office of Regulatory Affairs, Division of Field Science, ORA laboratory manual or the website address, <http://www.fda.gov/ScienceResearch/FieldScience/default.html>

## 2.11 Document Change History

Version 1.3	Revision	Approved: 02-02-10	Author: LMEB	Approver: LMEB
Version 1.4	Revision	Approved: 07-20-10	Author: LMEB	Approver: LMEB
Version 1.5	Revision	Approved: 09-14-10	Author: LMEB	Approver: LMEB
Version 1.6	Revision	Approved 01-11-11	Author: LMEB	Approver: LMEB
Version 1.7	Revision	Approved 02-06-12	Author: LMEB	Approver: LMEB

Version 1.3 changes:  
Contents – updated

Footer - web link updated

Minor revisions made to following sections – 2.1; 2.1.1, 2.1.2, 2.2.3, 2.3, 2.4.2.1, 2.4.2.2, 2.5.2, 2.5.1.1, 2.5.1.2, 2.5.2, 2.6, 2.6.1, 2.6.2, 2.7.2, 2.8, 2.8.1, 2.8.1.1, 2.8.1.2, 2.8.2, 2.8.2.1, 2.8.2.2, 2.9, 2.9.2, 2.10

Version 1.4 changes:

2.5.1 – changed “interlaboratory” to “intralaboratory”; moved last sentence of paragraph 1 to 2.5.2

2.5.1.2 – changed “interlaboratory” to “intralaboratory”

2.5.2 – deleted second paragraph; moved last paragraph up

2.5.2.1 and 2.5.2.2 – section titles added

Version 1.5 changes:

2.5.1.1 – corrected identification on analyst worksheet

Version 1.6 changes:

2.1.2 – IOM reference changed to Chapter 4

2.2.2.4 – IOM reference changed to Chapter 4

2.4.2.1 – IOM reference changed to Chapter 4

2.10 – updated second reference

Version 1.7 changes:

2.2 - Title changed

2.2.2.4 – updated IOM reference

2.4.2.1 – added Subchapter 4.5.4; corrected IOM Exhibit to 4-17

2.5.2 – revised second line in second paragraph

2.8.1.2 – removed “standard Operating Procedure” in third paragraph; revised last sentence in last paragraph

2.8.2 – changed “subdivision” to “portion”

2.8.2.2 – revised first sentence in last paragraph