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Environmental Programs
Waste and Environmental Services

Standard Operating Procedure

for **SHIPPING OF ENVIRONMENTAL SAMPLES BY THE WES SAMPLE MANAGEMENT OFFICE (SMO)**

APPROVAL SIGNATURES:

Subject Matter Expert:	**Organization:**	**Signature:**	**Date:**
Keith Greene	WES-EDA	Signature on file	01/21/2010
Responsible Line Manager:	**Organization:**	**Signature:**	**Date:**
Craig Eberhart	WES-EDA	Signature on file	01/21/2010

1.0 PURPOSE AND SCOPE

This purpose of this procedure is to describe the process for shipping environmental samples from the Los Alamos National Laboratory (LANL or Laboratory) Environmental Programs (EP) Directorate Waste and Environmental Services (WES) Sample Management Office (SMO) to analytical laboratories.

The work specified in this procedure will be conducted in accordance with the applicable sampling activity Integrated Work Documents, in accordance with LANL IMP 300-00-00, Integrated Work Management for Work Activities, or with the applicable sampling activity Hazard Review.

2.0 BACKGROUND AND PRECAUTIONS

2.1 Background

The chain-of-custody process provides confidence and documentation in analytical data integrity by establishing the traceability of the data from the time of collection, to delivery, through processing, to final maintenance as a record.

2.2 Precautions

Chain-of-custody must be maintained for legally defensible environmental sampling.

3.0 EQUIPMENT AND TOOLS

None

4.0 STEP-BY-STEP PROCESS DESCRIPTION

4.1 Receipt of Samples for Shipment		
Sample Management Office (SMO) Personnel	1.	Accept samples only if they are described on completed chain-of-custody forms. Completed chain-of-custody forms include date and time of sample collection, acknowledgement that containers are accounted for or canceled, annotation for any container deviations, and representation for field screening results. Acceptance is also contingent on the custody seals being in place. Once the above has been verified Relinquished and Received signatures and date/time must be completed.
	2.	Immediately after the samples are properly received at the SMO, store in secondary containment (for breakable storage containers) and place in refrigerated storage area where applicable until they are prepared for shipment to the analytical laboratory.

4.2 Packaging of Samples for Shipment

SMO Personnel	1.	Seal and secure the drainage hole at the bottom of the cooler in case of sample container leakage.
	2.	Pack individual sample containers to prevent breakage and transport in a sealed cooler with ice or other suitable coolant, or other EPA or industry-wide accepted method.
	3.	First, individually wrap glass bottles in plastic to contain sample if breakage during shipment. Then wrap in cushioning material to help prevent breakage.
	4.	Protect plastic containers from possible puncture during shipping using cushioning material.
	5.	Include temperature blanks with each shipping container.
	6.	Apply chain-of-custody seals to each cooler prior to shipment of samples from LANL to the designated analytical laboratory.
	7.	Include the chain-of-custody form and analytical request form within the sealed storage container to be delivered to the analytical laboratory. Samples may be bundled and shipped to the analytical lab. In this case, chain-of-custody analytical request forms are also bundled with the shipment and placed in one of the shipping containers. The paper work is also faxed to the analytical lab in case the shipping containers get separated in transit. However, some programs can not be bundled. Samples associated with NPDES compliance, UN2910 Rad and New Mexico Special waste (high TPH) must be shipped in their own shipping container with its corresponding paperwork.

4.3 Submission of Samples to Analytical Laboratory

SMO Personnel	1.	Ship each cooler, or other shipping container, directly to the analytical laboratory.
	2.	Submit all samples to the laboratory in a timely manner to allow the analytical laboratory to conduct analyses within analytical method holding times.

4.4 Records

Sampling Personnel and/or SMO Personnel	1.	Complete Form 1701 Records Transfer Request form and send to IRM-RMMSO to capture records being transferred to the offsite Federal Records Center (FRC) in Denver, CO. Prepare, package and submit records and/or documents directly to the offsite FRC: • Completed field chain-of-custody forms. • Completed Analytical Request forms. • Analytical data package results generated from the collected samples. • Data validation reports corresponding to the analytical data package.

5.0 PROCESS FLOW CHART

None

6.0 ATTACHMENTS

None

7.0 REVISION HISTORY

Revision No. *(Enter current revision number, beginning with Rev.0.0)*	**Effective Date** *(DCC inserts effective date for revision)*	**Description of Changes** *(List specific changes made since the previous revision)*	**Type of Change** *(Technical [T] or Editorial [E])*
0.0	8/16/07	New document.	T/E
0.0	12/21/09	New document. Supersedes EP-ERSS-SOP-5095.	T/E
1.0	1/21/10	Minor change to Section 4.4, to reflect ADEP Records Management procedures.	T/E

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