

REVISION HISTORY

Document No./Revision No.	Issue Date	Action	Description
OIO-TP-222 RO	03/17/2015	Major	This document supersedes SOP-5255, formatted into Technical Procedure template.
ER-SOP-10095, R0	5/2/2017	Major	Updates to transfer from ADESH to ADEM.

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1. PURPOSE

The purpose of this procedure is to describe the process for shipping and/or receiving environmental samples from the Los Alamos National Laboratory (LANL or Laboratory) Sample Management Office (SMO) to/from analytical laboratories.

2. SCOPE

The work specified in this procedure shall be followed by all SMO employees and designated supply help.

3. PRECAUTIONS AND LIMITATIONS

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.

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

This standard operating procedure (SOP) is for samples shipped and/or received by SMO staff members. This does not apply to any other LANL shipping or receiving entity.

4. PERFORMANCE

4.1 Receipt of Samples for Shipment

SMO Team

NOTE *Samples should be accepted 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.*

- [1] Immediately after being properly received at the SMO, **STORE** samples 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 Samples for Shipment

- [2] **SEAL** and **SECURE** the drainage hole at the bottom of the cooler in case of sample container leakage.
- [3] **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.
- [4] Individually **WRAP** glass bottles in plastic to contain sample if breakage occurs during shipment, then **WRAP** in cushioning material or use of self-sealing pre-ordered bubble bags to help prevent breakage, whichever is applicable.
- [5] **PROTECT** plastic containers from possible puncture during shipping using cushioning material.
- [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.

4.2 Packaging Samples for Shipment (continued)

NOTE *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 cannot 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 Team

- [1] **SHIP** each cooler, or other shipping container, directly to the analytical laboratory by FED-EX.
- [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 Receipt of Samples from Analytical Laboratory

SMO Team

NOTE 1 *In the abnormal situation that samples need to be returned from the analytical laboratory, the same conditions of acceptance must be followed as specified in EM-SOP- 10094 with the following additional Completed field chain-of-custody forms.*

NOTE 2 *If the following conditions are not met the samples must not be accepted.*

- [1] **OBTAIN** prior approval from the SMO manager and Subcontractor Technical Representative from the project the samples were collected for.
- [2] **CONFIRM** charge code and disposal path, either back to site from which the samples were collected from or projects approved waste stream.

5. TRAINING

All other applicable SMO Standard operating procedures.

6. RECORDS

Records generated while performing this procedure must be processed and maintained in accordance with EP-AP-10003, Records Management.

Record Name	QA Record	Non-QA Record
Chain of Custody Forms	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7. REFERENCES

EP-AP-10003, Records Management

ER-SOP- 10094, Handling, Packaging, and Transporting Field Samples