

OIO-TP-222	Revision: 0	
Effective Date: 3/17/2015	Next Review Date: 3/17/2018	

Environment, Safety, Health Directorate

Operations Integration Office

Technical Procedure

Shipping/Receiving of Environmental Samples by the Sample Management Office (SMO)

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Derivative Classifier: Unclassified or DUSA ENVPRO

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REVISION HISTORY

Document Number and Revision <i>[Include revision number, beginning with Revision 0]</i>	Effective Date <i>[Document Control Coordinator inserts effective date]</i>	Description of Changes <i>[List specific changes made since the previous revision]</i>
OIO-TP-222 RO	03/17/2015	This document supersedes SOP-5255, formatted into Technical Procedure template. Document to Keith Greene for revision to procedure.

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1.0 INTRODUCTION

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.

1.1 Purpose and Scope

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.

1.2 Applicability

This procedure is applicable to all SMO staff members.

2.0 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.

2.1 Precautions

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

2.2 Limitations

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

3.0 PREREQUISITE ACTIONS

None

4.0 STEP-BY-STEP PROCESS DESCRIPTION

4.1 Receipt of Samples for Shipment

- SMO Team**
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.
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4.2 Packaging of Samples for Shipment

- SMO Team
- 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 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.

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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
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 OIO-QP-221 with the following additional Completed field chain-of-custody forms.
 - Must have prior approval from the SMO manager and STR from the project the samples were collected for.
 - Confirmed charge code and disposal path, either back to site from which the samples were collected from or projects approved waste stream.

NOTE: If the above conditions are not met the samples must not be accepted.

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5.0 TRAINING

All other applicable SMO Standard operating procedures.

6.0 DEFINITIONS AND ACRONYMS

See LANL [Definition of Terms](#).

6.1 Definitions

None

6.2 Acronyms

See LANL [Acronym Master List](#).

DOE	Department of Energy
LANL or the Laboratory	Los Alamos National Laboratory
SMO	Sample Management Office

7.0 RECORDS

Follow OIO-SOP-5269, Chain of Custody and Final Records Preparation for Analytical Data.

8.0 REFERENCES

OIO-QP-221, Handling, Packaging, and Transporting Field Samples.

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9.0 ATTACHMENTS OR APPENDICES

None



Environment, Safety and Health

Electronic Public Reading Room - Posting of Controlled Procedures

Operations Integration Office Management Approval:

Print Name	Signature	Date
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Derivative Classifier:

OOU
 UCNI
 Unclassified
 Classified

Print Name	Signature	Date
Larry W. Maassen	<i>Larry Maassen</i>	3/4/16

List of Controlled Documents:

Procedure No.	Title/Description
Air Monitoring (ENV)	
ENV-ES-TPP-003	Technical Project Plan for the Neighborhood Environmental Watch Network (NEWNET)
ENV-ES-TPP-007	Technical Project Plan for the Direct Penetrating Radiation Monitoring Network (DPRNET)
Data Validation (ADESH)	
OIO-TP-5161	Routine Validation of Volatile Organic Compound Analytical Data
OIO-TP-5162	Routine Validation of Semivolatile Organic Compound Analytical Data
OIO-TP-5163	Routine Validation of Organochlorine Pesticide and Polychlorinated Biphenyl Analytical Data
OIO-TP-5165	Routine Validation of Metals Analytical Data
General Field Work	
OIO-TP-222	Shipping/Receiving of Environmental Samples by the Sample Management Office (SMO)
OIO-QP-219	Sample Control and Field Documentation
Soil, Foodstuffs, and Biota Sampling (ENV)	
ENV-ES-TPP-002	Technical Project Plan for Biota Dose Assessment
ENV-ES-TP-003	Collection of Soil and Vegetation Samples for the Environmental Surveillance Program
ENV-ES-TP-004	Produce Sampling
ENV-ES-TP-007	Game Animal Sampling
ENV-ES-TP-006	Sampling Soil and Vegetation at Facility Sites
SOP-5247	Collection of Benthic Macroinvertebrates in the Rio Grande
ENV-ES-TP-008	Collection of Crawfish in the Rio Grande
Well Drilling, Construction, Development, Maintenance, and Abandonment	
ENV-RCRA-QP-010	Land Application of Groundwater