

Advanced Photon Source

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USDA Regulated Soil Use at the APS

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USDA Regulated Soil Use at the APS

1. INTRODUCTION

1.1. Purpose

This procedure describes the requirements for managing USDA (United States Department of Agriculture) regulated soil at the APS.

1.2. Scope

This procedure details how personnel shall ship, receive, store, and provide training for use of USDA regulated soil at the APS.

1.3. Applicability

This procedure is applicable to all experiments at the APS involving the use of USDA regulated soil.

1.4. References

Contact the APS USDA regulated soil custodian for a copy of the current version of the USDA regulated soil permit, USDA compliance agreement, and APS USDA regulated soil SOP.

2. BACKGROUND

Soil from foreign sources, US territories, Hawaii, and certain locations within the continental US are regulated by the USDA. A permit and/or compliance agreement is required to receive these soils unless they are sterilized prior to shipment. Consult the USDA regulated soil map (search “USDA Regulated Soil Map” online to obtain the most current map) for a county-by-county map of USDA regulated soil in the continental US.

3. PREPARATION OR PREREQUISITE ACTIONS

The APS must have a valid USDA regulated soil permit regulated by 7 CFR 330 and a compliance agreement supplementing the PPQ (Plant Protection and Quarantine) 330 soil permit, to allow for work with foreign and domestic USDA regulated soil. The APS must assign an individual to be the permit holder. This individual is the APS USDA regulated soil custodian and is responsible for executing the USDA regulated soil program at the APS.

The APS USDA regulated soil custodian or designee must maintain a log book tracking all experiment work with USDA regulated soil at the APS.

The log book must include the following for each experiment:

- Sample Information Log Sheet
- Soil Sample Internal Transfer Record Sheet (if applicable)
- Experimenter's PPQ permit and compliance agreement (if applicable)
- Signature sheet signed by the experimenters(s) attesting they received and read the APS SOP for work with USDA regulated soil
- If USDA regulated soil will be shipped to the experimenter at the conclusion of the experiment the log book must include:
 - Experimenter's USDA PPQ Form 550 label
 - Shipment address
 - FedEx or UPS account number
 - Shipping Order

4. PROCEDURE

4.1. Experiment Preparation

USDA regulated soil must be declared on an ESAF (Experiment Safety Assessment Form) by answering yes to the question on the materials tab of the ESAF; "Are you bringing regulated foreign or domestic soil to the APS?". Answering yes to this question populates the USDA regulated soil tab in ESAF. All required information must be provided on this tab. A USDA regulated soil permit and/or compliance agreement (issued by the USDA to the experimenter at the experimenter's home institution) must be attached to the ESAF. ESAFs with USDA regulated soil must be submitted as far in advance as possible to the experiment start date.

4.2. Shipment/Transport of USDA Regulated Soils

USDA regulated soil must either be shipped or hand carried (if permitted in the experimenter's USDA regulated soil permit) to the APS. If the experimenter's USDA regulated soil permit does not allow hand carry and/or the person bringing USDA regulated soil is not listed as an authorized hand carrier on the USDA regulated soil permit, the USDA regulated soil must be shipped via a bonded carrier (FedEx, etc.) to the APS USDA regulated soil custodian.

The USDA regulated soil shipment must:

- Weigh less than 3 total pounds.
- Be double bagged and packaged in a sturdy, leak proof container.
- Include a copy of the APS USDA regulated soil permit and/or compliance agreement inside the shipment container.
- A USDA PPQ Form 550 label must be affixed to the exterior of the shipment container. The experimenter must contact the APS USDA regulated soil custodian to obtain this label. The label will be emailed to the experimenter by the APS USDA regulated soil custodian. This is **NOT** a shipping label. **NOTE:** Contact the APS far in advance of the experiment start date to obtain this label and shipping instructions.
- Shipped to the USDA regulated soil custodian via bonded carrier (FedEx, etc.). Tracking information must be forwarded to the APS USDA regulated soil custodian.

4.3. Receipt and Storage of USDA Regulated Soils

Upon receipt of a shipment of USDA regulated soil, the APS USDA regulated soil custodian or designee must log required information into the APS USDA regulated soil log book.

Required information includes:

- Experimenter's name
- ESAF ID number
- Date of arrival at APS
- Sample(s) IDs
- Soil origin
- Sample(s) weight

If the USDA regulated soil will not be used immediately at a beamline or lab, it must be stored in a locked cabinet located in 437 C002. If storing in 437 C002, the APS Soil Sample Internal Transfer Record log sheet must be completed. Untreated USDA regulated soil may be stored for up to 6 months from date of arrival at the APS.

4.4. Use of USDA Regulated Soils

If the USDA regulated soil has been stored in 437 C002, the APS USDA regulated soil custodian or designee will bring the USDA regulated soil to the experimenter(s) at the beamline or lab where the experiment with USDA regulated soil is scheduled to run. The APS USDA regulated soil custodian or designee will complete the APS Soil Sample Internal Transfer Record log sheet.

If the experimenter(s) hand carried USDA regulated soil to the APS, the USDA regulated soil custodian or designee will log the required information into the APS USDA regulated soil log book as described in Section 4.3.

The APS USDA regulated soil custodian or designee must meet with the experimenter group and provide training on the APS USDA regulated soil SOP prior to the start of the experiment. The experimenter(s) must sign a signature sheet attesting they received and read the APS SOP for work with USDA regulated soil. A copy of the SOP must be posted in all areas where work with USDA regulated soil will occur.

The following conditions must be met when working with USDA regulated soil at the APS:

- Samples must be secured (in a lockable drawer, cabinet, etc.) when unattended.
- USDA regulated soil spilled on lab benches, equipment, etc. must be collected immediately. Contact the APS USDA regulated soil custodian or designee to heat treat the USDA regulated soil via autoclave.
- Collect any wipes, swabs, etc. used for sample prep and place in a container or bag. Contact the APS USDA regulated soil custodian or designee to heat treat the material via autoclave.
- Fixed surfaces or tools that have come in contact with USDA regulated soil must be decontaminated with 70% ethanol.

4.5. Conclusion of Experiment Requirements/Shipment Off-Site

At the conclusion of the experiment the USDA regulated soil may be returned to the experimenter's home institution via one of the following methods:

- Hand carried back to the experimenter's home institution if authorized by their USDA regulated soil permit. The experimenter must attest via email to the APS USDA regulated soil custodian they are hand carrying their samples back to their home institution.
- Ship untreated USDA regulated soil back to the experimenter's home institution if the experimenter has a USDA regulated soil permit and/or compliance agreement. The USDA regulated soil must be stored in a locked cabinet in 437 C002 at the conclusion of the experiment until the samples are ready for shipment off-site. If storing in 437 C002, the APS Soil Sample Internal Transfer Record log sheet must be completed. The experimenter must provide the following information for return shipment:
 - Experimenter's USDA Regulated Soil Permit and/or compliance agreement
 - Experimenter's USDA PPQ Form 550 label

- Shipment address
- FedEx or UPS account number
- If shipping USDA regulated soil off-site, the APS USDA regulated soil custodian or designee must prepare and submit an ANL-126C Shipping Order form in XINK. The Shipping Order form must be printed and attached to the exterior of the shipment prior to drop off for delivery to Building 46.
 - The USDA regulated soil return shipment must:
 - Weigh less than 3 total pounds.
 - Be double bagged and packaged in a sturdy, leak proof container.
 - Include a copy of the experimenter's USDA regulated soil permit and/or compliance agreement inside the shipment container.
 - A USDA PPQ Form 550 label supplied by the experimenter must be affixed to the exterior of the shipment container.
 - Shipped to the experimenter via bonded carrier (FedEx, etc.).
- USDA regulated soil may be heat treated via autoclave for a minimum of 30 minutes and 15 inches of pressure at 121 degrees Celsius. After heat treatment, samples can be shipped back to the experimenter's home institution as unregulated soil.

If the experimenter does not want their USDA regulated soil returned to them, the USDA regulated soil will be heat treated via autoclave and disposed of in the same manner as unregulated soil.

At the conclusion of the experiment, the APS USDA regulated soil custodian or designee must log in the APS USDA regulated soil log book the date of return shipment, shipment destination, and experimenter's permit number.

5. RECORDS CREATED BY THIS PROCEDURE

The records listed below are created in the execution of this procedure and must be retained as indicated.

Description of Record	Custodian	Record Storage Location	Retention Requirement
Sample Information Log Sheet	APS USDA Regulated Soil Custodian	437 C002	3 years
Soil Sample Internal Transfer Record	APS USDA Regulated Soil Custodian	437 C002	3 years
SOP Signature Sheet	APS USDA Regulated Soil Custodian	437 C002	3 years

6. TRAINING REQUIRED

All personnel working with USDA regulated soil at the APS must receive training on the APS USDA regulated soil SOP. Experimenter(s) must sign a signature sheet attesting they received and read the APS SOP for work with USDA regulated soil

7. FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the [APS Policies and Procedures Comment Form](#)* to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure ([APS 1408152](#)).

* <https://www.aps.anl.gov/Document-Central/APS-Policies-and-Procedures-Comment-Form>