**APS Radioactive Sample Information**

**DATE:** Click or tap to enter a date.

**BEAMLINE:** Click or tap here to enter text.

**PROPOSAL/ESAF#** Click or tap here to enter text.

**PI:** Click or tap here to enter text.

**CONTACT:** Click or tap here to enter text.

**BEAMTIME:** Click or tap here to enter text.

Please provide the following information for the review of your experiment involving radioactive samples. This document must be attached to the description tab of your ESAF.

1. Provide the total sample matrix, weight, and dimensions:

Click or tap here to enter text.

2. Provide the amount (weight & activity) of each radioactive isotope in the sample(s):

Click or tap here to enter text.

3. Have any of your samples been irradiated with neutrons or ion beams? If yes, they are considered radioactive samples at the APS. Please provide the following information:

* Source of irradiation (neutrons/ion beams): Click or tap here to enter text.
* If ion beams, the ion and energy used: Click or tap here to enter text.
* Date and location of irradiation: Click or tap to enter a date. At: Click or tap here to enter text.
* Current radiation dose of the samples (at contact and 30 cm):

Contact: Click or tap here to enter text. 30 cm: Click or tap here to enter text.

* Isotopes present from neutron activation (with weight or activity):

Click or tap here to enter text.

* Provide release criteria or paperwork (final survey) for the samples (if possible).

\*Note: even if the samples were free released from another facility, the above information still needs to be provided.

Click or tap here to enter text.

4. Provide a detailed description of the sample containment.

* A diagram or schematic showing all levels of containment MUST be included (attach files to the ESAF).

Click or tap here to enter text.

5. If a previously run radioactive sample, what is the periodicity that layers of encapsulation are checked and replaced? Click or tap here to enter text.

* Please reference any previous APS experiments that included the proposed containment and if the samples have been re-encapsulated.Click or tap here to enter text.

6. Provide any data on integrity of the sample, the sample holder, and containment under the expected experiment conditions (e.g., heating, cooling, pressure, etc.).

All experimental conditions must be tested on an identical non-rad sample holder and results documented and presented for review.

\* Only tested conditions that have been reviewed and approved will be allowed.

Click or tap here to enter text.

7. Special training requirements, in reference to handling, accountability, transport, etc. of the samples. ANL RadWorker 1 and Practical (ESH 700 & ESH 700PR) are required for radioactive sample handling at the APS.

* Provide list of experimenters participating and their ANL ESH 700/700PR status:

Click or tap here to enter text.

8. Requirements on loaded sample holders:

\*This information may not be available at the time of ESAF submission but MUST be provided before approval will be given to ship the radioactive samples.

* Provide exposure readings from the sample at contact and at 30 cm, with a description of the instruments used to perform the measurements:

Contact:Click or tap here to enter text. 30 cm:Click or tap here to enter text. Instruments: Click or tap here to enter text.

* Provide wipe/smear test results on loaded sample holder(s): Click or tap here to enter text.
* Provide liquid scintillation results (if required): Click or tap here to enter text.
* Provide photographs of the loaded sample holders: (attach here or to the ESAF)

Click or tap here to enter text.

9. Provide the contact information (name, email, shipping address, & phone) for the person at your institution who will be responsible for shipping your radioactive samples to ANL/APS. Even if the samples are not regulated as radioactive per DOT they are radioactive per DOE on ANL/APS site. The person responsible for the shipment will receive an authorization memo from the ANL-RSO with the proper shipping address when the proposed samples are approved.

Click or tap here to enter text.

10. Provide the requirements and shipment contact for the return of your samples after your experiment:

Click or tap here to enter text.

11. Provide approximate beam size and maximum flux on sample: Click or tap here to enter text.

12. Provide beam type (Mono/Pink/White): Choose an item.

13. Provide beam energies if Mono, ID gap if Pink/White: Click or tap here to enter text.keV

\*Note: Contact the Beamline to obtain the information for items 10-13.