

Nuclear Fuels and Materials Library Policy

The Nuclear Fuels and Materials Library (NFML) is an archive of thousands of valuable irradiated and unirradiated samples that are publicly available for nuclear researchers from academia, national laboratories, and industry, and exists to further our understanding of irradiation on reactor components and fuels. Additionally, the NFML contains pedigrees, experiment information, and publications related to the samples. The Department of Energy-Office of Nuclear Energy (DOE-NE) owns the NFML and the Nuclear Science User Facilities (NSUF) curates the archive via NSUF competitive award processes or direct requests granted by the NSUF Director.

Since its inception, the NSUF has awarded hundreds of projects through the [Consolidated Innovative Nuclear Research \(CINR\)](#) and [Rapid Turnaround Experiment \(RTE\)](#) solicitation processes that offer nuclear researchers access to unique nuclear facilities, equipment, and the materials in the NFML. As the competition for awards increased, so have the guidelines and rules for awarding research and granting NFML sample requests. This policy provides current guidance and explanation of the award and approval process for the use of the NFML samples and materials. This guidance should be used as a reference for all researchers requesting materials from the NFML or those offering nuclear materials or samples to be archived in the NFML. These policy concepts are incorporated into the CINR and RTE solicitations as well as any revised and new user agreements. The policy is a live document that will continue to evolve and change as needed. Extenuating circumstances may dictate case-by-case decisions that are not addressed in the policy or may not reflect exactly what is contained in the policy. These decisions are made by the NSUF Director alone or with the NSUF Federal Program Manager.

The updated NFML policy guidelines are as follows:

1. All materials and samples in the NFML are owned by the DOE-NE and curated by the NSUF.
2. Materials offered to and accepted into the NFML for curatorship must be transferred to the NSUF.
 - a. Materials or samples from DOE programs that were not funded by the NSUF will be transferred from the DOE program to the NSUF through a documented agreement. The documented agreement should come from the offering DOE Federal Program Manager or their DOE delegate.
 - b. Materials or samples from third parties (industry, foreign entities, other non-DOE federal agencies, etc.) should be transferred to the DOE-NE per a legal Agreement on Transfer of Title and Ownership.

Upon transfer, the curation of the materials or samples will be administered solely by the NSUF. The transferring party will have no further authority regarding the disposition of the transferred materials or samples.

3. Samples offered and accepted into the NFML should be accompanied by an adequate pedigree. Pedigree documents may include, but are not limited to:

- a. Material certifications and compositions,
- b. Irradiation conditions (temperature, dose, flux, fluence)
- c. Fabrication methods,
- d. Sample geometry, and
- e. Related publications.

The pedigree information will be publicly available. In the rare instance a portion of the pedigree is proprietary, an appropriate arrangement may be agreed upon that excludes sensitive information from the public domain.

- 4. All available samples in the NFML can be requested for use through the NSUF CINR and RTE solicitation processes. Request for samples outside of the solicitation processes can be made directly to the NSUF Director.
- 5. Samples transferred into the NSUF as a result of an awarded CINR or requested for an RTE are managed according to the policies of the NFML.
- 6. Following the completion of the sample irradiation portion of an awarded experiment, the Principal Investigator (PI) will be given exclusive rights to the samples for a three-year period of post-irradiation examination unless other conditions are agreed upon. After the three year period, the samples will be made available to the general research community for subsequent competitively awarded proposals.
 - a. As a courtesy, subsequent proposers will be provided the contact information of the original project PI for potential collaboration opportunities. The original PI may collaborate or not but may not deny access to NFML sample requests included in an awarded proposal.
- 7. The NSUF reserves the right to fabricate, irradiate, and add to the NFML additional material samples as part of any irradiation project supported by the NSUF.
- 8. In the case of a dispute regarding the use of NFML samples or the admittance of samples into the NFML, the final arbiter of decision will reside with the DOE-NE.
- 9. NFML samples may be requested for projects/experiments outside of NSUF proposal processes. Requests must be made to and granted by the NSUF Director. As these requests are not specifically related to the NSUF proposal process, alternative or additional guidelines may be established on an individual basis.
 - a. The requesting party may be responsible for costs to retrieve and ship samples as well as return the samples to the original NSUF storage location.

- b. All samples and materials in the NFML are generally intended for non-proprietary work. Samples requested to perform proprietary work will be subject to additional review and conditions.
- 10. Any and all publications resulting from the use of NFML samples must acknowledge the NSUF and NFML by including the following citation: "Materials or samples employed in this study are from the Nuclear Fuels and Materials Library and were provided by the U.S. Department of Energy, Office of Nuclear Energy under DOE Idaho Operations Office Contract DE-AC07-051D14517 as part of the Nuclear Science User Facilities".

The guidelines listed in this policy have been established, in part, because of issues and questions that have occurred since the inception of the NFML. The guidelines are not immutable. As NSUF users and NFML sample requests increase, new situations and questions may compel the need for flexibility or additional guidance. The NSUF reserves the right to amend or add new guidelines as needed.