Idaho National Laboratory

# Nuclear Science User Facilities MY NSUF Quick Guide

Kelly A. Cunningham September 26, 2016

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Please send questions or suggestions regarding My NSUF Quick Guide to Kelly.Cunningham@inl.gov.

## **My NSUF Quick Guide**



### **Create Proposal for Open Call**

\*Indicates NSUF RTE guidelines

#### NSUF / Proposal / Proposal Home

#### **Proposal Home**

Create Proposal for Open Call

#### **Create new proposal**

\*A PI will not be allowed to propose a new RTE if he/she has three active experiments during the call period.

10 🔽				Search
Call	<ul> <li>Begin Date</li> </ul>	♦ End Date	ф Туре	
FY 17 RTE 1st Call	7/1/2016 7:00:00 AM (MST)	9/29/2016 4:00:00 PM (MST)	RapidTurnaround	
Showing 1 to 1 of 1 entries				Previous 1 Next

		Add PI information			
Working					
		*One principal investigator per proposal.			
Principal Investigator		*RTE proposals are open to Principal Investigators affiliated			
First Name:	Jane	with a U.S. university, national laboratory, domestic entity or			
Last Name:	DOE	foreign entity incorporated in the U.S. Proposals from			
Institution:	Idaho Nation	Principal Investigators not from a U.S. entity will be accepted			
Title:		as long as the proposal contains a co-Principal Investigator			
Phone Number:	2085555555				
Address:	123 Main				
City:	Idaho Falls				
State:	ID				
Zip:	83402				
٨dd	each memt	per by clicking the edit icon			
		team members (co PIs working on the same	$\rightarrow$ (		
Name: En team per c		rea) may only submit a total of two proposals	Status:		

#### Experiment Details

#### Experiment Title

New Proposal

Describe the work that you are proposing in detail. Please include as many specifics as possible (e.g., dose, dose rate, ion energy, types of ions, beam line x-ray energy, irradiation temperature, analysis temperature, atmosphere, etc.):

Work Description

Identify all equipment and instrumentation necessary to the performance of this experiment:

Equipment Description

#### Partner Facilities:

- University of Wisconsin Tandem Accelerator Ion Beam / Characterization Laboratory
- University of Michigan Ion Beam Laboratory (MIBL)
- Massachusetts Institute of Technology MITR Nuclear Reactor Laboratory
- North Carolina State University PULSTAR Reactor
- Oak Ridge National Laboratory HFIR / LAMDA
- Pacific Northwest Laboratory Radio Chemical Processing Laboratory
- Purdue University IMPACT LAB
- University of California-Berkeley Nuclear Materials Laboratory
- University of Nevada Las Vegas Radiochemistry Laboratory
- Westinghouse Materials Center for Excellence
- Center for Advanced Energy Studies MaCS
- Illinois Institute of Technology MRCAT at Advanced Photon Source
- Idaho National Laboratory PIE Facilities
- Intermediate Voltage Electron Microscopy Tandem Facility (IVEM)

Describe what data or images will be produced:

Data Description

#### **Facilities Available for RTEs**

Microscopy and Characterizaton Suite (MaCS) at the Center for Advanced Energy Studies

- Focused Ion Beam with EDS/EBSD/Omniprobe
- Local Electrode Atom Probe (LEAP)
- Nano Indenter Atomic Force Microscope
- Scanning Electron Microscope with EDS/EBSD/CL

Other Facilities Available for RTEs

\*One facility per proposal

- Beamline
- Post-irradiation Examination
- IVEM
- High-performance Computing
- NSLS II X-Ray Powder Diffraction (XPD) Beamline (only)

• FEI Technai TR30-FEG ST win STEM

Indicate how many specimens will be examined:

\*Limited time and funding, depending on facility, allow for only a small number of samples, historically < 9 is optimal.

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Please provide the following:		The Nuclear Fuels and Materials Library can be found in the
Experiment ID:	08-139	NEID Infrastructure database.
Material Description:	TEM samp	les
KGT Number:	1234	
Location:	HFEF	
<ul> <li>FIB time is l in a month.</li> <li>All other in:</li> </ul>	limited to six day	eded to perform the experiment: s in a 6-month period (no more than two consecutive days at a time). Maximum of four da nited to a maximum 10 days (combined, not per instrument) in a six-month period with no for TEM) consecutive days at a time.
	cial requirement	nts for the performance of this experiment (i.e., material needs to be obtained
None		
On what timeline	would you like	this research performed?
		nt time must be scheduled within three months of award. Awarded
Are the experime	nt samples irra	diated?
*Work is li	mited to irradi	ated materials (neutron, charged particle, nuclear fuel), with the

exception of ion beam irradiations.

Technical A	bstract	Please see abstract instructions below.	
Program Re	elevance Abstract	Attach Abstracts and team member bios	
Proposal Na	arrative / Attachments	3	
File	Туре	Uploaded	Size
		Submit Proposal for Review	
		itted for review, the proposal can be viewed vailable for editing.	l but will no

#### **Technical Abstract:**

#### Limit Technical Abstract to 500 words.

Please describe the project objectives including methods to be employed, and the potential impact to the state-ofthe-knowledge if the research is successful. The abstract must also indicate the expected period of performance.

#### **Program Relevance Abstract:**

This is intended to be a blind narrative. Please do not identify the university(s) involved or list names of PIs or collaborators. Limit Program Relevance explanation to 500 words.

The programmatic relevance abstract should describe how the proposed research advances DOE's nuclear energy agenda. The programs funded by the Office of Nuclear Energy have the following two Program Goals:

Develop new nuclear generation technologies – that foster the diversity of the domestic energy supply through public-private partnerships that are aimed in the near-term (2015) at the deployment of advanced, proliferation-resistant light water reactor and fuel cycle technologies and in the longer-term (2025) at the development and deployment of next-generation advanced reactors and fuel cycles.

Maintain, enhance, and safeguard the Nation's nuclear infrastructure capability – to meet the Nation's energy, environmental, medical research, space exploration, and national security needs.

Information on the Advanced Fuel Cycle Initiative, Next Generation Nuclear Plant, Light Water Reactor Sustainability Program, and the Generation IV Nuclear Energy Systems Initiative may be found on the Office of Nuclear Energy Web Site at <a href="http://www.nuclear.gov">http://www.nuclear.gov</a>.

#### **Proposal Narrative/Attachments:**

Upload the following files: the proposal narrative, including graphics should be no more than 2 pages total (font size of 10 or more). The bibliographic sketch for the principal investigator, and co-investigators should be limited to 2 pages each. Each file must be in PDF format and should not exceed 8 MB in size. The proposal narrative should define the project objectives and significance, how the research would contribute to the state-of-the-knowledge in the field, why the methods proposed are optimal for achieving the results, the resources needed to perform the research, and the capabilities of the principal investigator and key team members/collaborators. It should also explain how each team member/collaborator will be participating. The biographical sketch is limited to two pages for the principal investigator and should include educational background, research and professional training, publications and synergistic activities.

Status			
Workin	g		
Validation Errors:	Validation errors will prohibit sub and resubmit proposal.	mittal. Correct errors	
A Specimens/Sa	mples description is required.		
		An electronically-genera	ited email will be
		sent to the proposer wh	
		successfully submitted.	
INL NSUF Proposal S	ystem - Proposal Submittal		

The purpose of this email is to notify you that the following proposal has been successfully submitted. Please contact NSUF (208-526-3841) if you need further assistance.

Principal Investigator Name: Jane Doe Proposal Title: Proposal Test #2

Thank you for your proposal.

## **My Proposals**

My Prop 10 🔽	osals			Working and submitted proposals are listed. Working proposals can be edited or deleted.	
ID	▲ Call	Status	♣ Title ♣ Ty	pe 🖨 Submitted 🍦 Updated 🔷 CAES 🐳	\$
742	FY 17 RTE 1st Call	Working	New Proposal		×
743	FY 17 RTE 1st Call	Working	New Proposal	ß	×
744	FY 17 RTE 1st Call	Submitted	New Proposal	9/14/2016	
Showing 1 to 3 of 3 entries S			Submitted prop	osals can only be viewed. Previous 1	Next

NSUF	Proposal System - Final Technical Review Request Inbox	x	÷ Ľ	7
-	lonotreply@inl.gov o me	Reviewers will receive a computer-generated emai	il.	
	NSUF Proposal			
	INL NSUF Proposal System - Final Technical Review Request			
	The purpose of this email is to notify you that the following proposal(s)are bein review. If you have a conflict of interest on any of the proposals, please notify the proposal will be reassigned to another reviewer.		ł	
	Thank you for your participation in this process.			
	Principal Investigator Name: #pi# Proposal Title: #title#			
	#action#			
	Thank You			
	#url#			

#### Working and completed reviews are listed. Working reviews can be edited.

1y Reviews					$\backslash $	Search	
Name	▲ Туре		A Proposal		🛓 Due	Completed	\$ \$
Jane DOE	Technical	Assigned	Proposal Test #2	9/23/2016	9/24/2016		
Jane DOE	Technical	Completed	New Proposal Test	9/19/2016	9/20/2016	9/23/2016	
howing 1 to 2 of 2	2 entries					Previous	1 Next
			 Completed revie			СНАЛ	IGE TO VIEW

Completed reviews can only be viewed.

CHANGE TO VIEW ICON

#### Open Proposal For Review C

Proposal will open in a new tab.

#### Scientific Merit (50%)

#### Edit each section to input review

comments and scores.

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This criterion includes the importance of the scientific or technological need addressed in the proposal as well as the innovation and validity of the approach described to meet that need. Consider such aspects as the influence that the characterization might have on the future direction, progress, and thinking within the area of science and technology; the likelihood of achieving valuable results; and the scientific innovation and originality indicated in the proposed research.

- Does the proposal describe a logical approach in applying materials characterization to solve a technological problem and/or provide new scientific knowledge?
- Does the proposal demonstrate a high degree of innovation or is substantially similar work being pursued elsewhere?

Score: 0.0 50 points available.

Technical feasibility (30%)

This criterion provides an assessment of the risk that the proposed research tasks may not be accomplished. The reviewer should take into account the present state-of-the-art as well as the capabilities and expertise that would be provided by the NSUF User Facility. A low probability that the requirements of the project can be met using all available knowledge and existing NSUF facilities dictates a low score on this criterion. The highest scores should also reflect the most effective utilization of capabilities at the NSUF User Facility.

Based on background information presented in the proposal, in relevant literature, and from your own knowledge of the field, is it reasonable to expect that the proposed tasks can be completed successfully?

- Is there a potential showstopper that has not been addressed?
- Will the present capabilities and expertise at NSUF be adequate to perform the required tasks? (Please see the Feasibility Review provided by NSUF staff for help on this question.)
- Do the proposed tasks use capabilities at the NSUF that are not widely available?

Score: 0.0 30 points available.

#### Capability of group (20%)

This score should include consideration of the background, past performance, and/or potential of the principal investigator, and the research environment and facilities that will be provided by the PI and co-PIs. The research potential and background should be weighted more heavily for a junior investigator who may have a more limited track record.

- Does the PI have a background that is appropriate for leading the proposed collaboration?
- Does the assembled research team have expertise in all of the key areas needed to achieve the project objectives?
- Does the group publish regularly in highly regarded, peer-reviewed journals?

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i c	This criterion includes the importance of the scientific or technological need addressed in the proposal as well as the nnovation and validity of the approach described to meet that need. Consider such aspects as the influence that the characterization might have on the future direction, progress, and thinking within the area of science and technology; the ikelihood of achieving valuable results; and the scientific innovation and originality indicated in the proposed research. • Does the proposal describe a logical approach in applying materials characterization to solve a technological proble
	and/or provide new scientific knowledge? <ul> <li>Does the proposal demonstrate a high degree of innovation or is substantially similar work being pursued elsewhere</li> </ul>
	Answer
ſ	0.0
5	0.0 50 points available. Please enter your score in the box, not to exceed 50.

Overall Recommendation	
Please rate the proposed researched as o provide several brief sentences that justif	one of the following: High Priority, Recommended, or Not Recommended. In addition, fy your overall recommendation.
Total Score 0.0	
Entire review can be edited until it has been submitted as complete.	Submit Review As Completed Return to Proposal