U.S. DEPARTMENT OF ENERGY | Nuclear Energy

Nuclear Science User Facilities

Experiment Awards And Status

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NSUF Nuclear Science User Facilities

NSUF Annual Program Review
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NSUF RTE Overview

NSUF Nuclear Science User Facilities

Rapid Turnaround Experiment solicitations are on a 4 month cycle:

- FY 16 1st call from May - September
- FY 16 2nd call from October - January
- FY 16 3rd call from February - May

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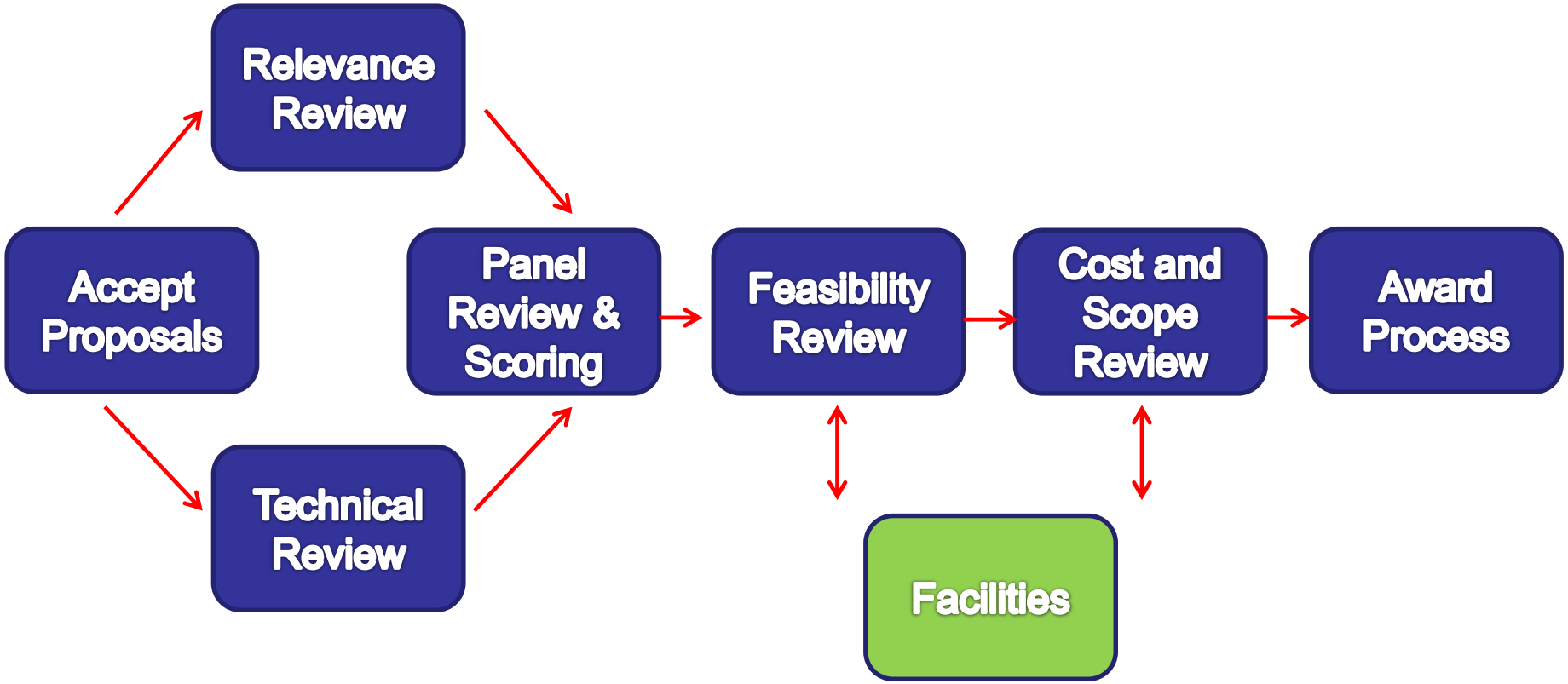
NSUF RTE Overview

NSUF Nuclear Science User Facilities

Rapid Turnaround Experiments (RTEs) offer researchers the opportunity to perform quick analysis of a small number of samples. Irradiation experiments that require use of the ATR, MIT, or HFIR reactors do not qualify as rapid turnaround experiments.

- All rapid turnaround experiment proposals are reviewed for feasibility, program relevance and scientific merit.
- NSUF makes every effort to match reviewers' expertise to the proposal's research areas. All reviewers are in the NEUP review pool. Proposals are scored on scientific merit (50%), technical feasibility (30%), and capability of the group (20%).
- The NSUF Director, Jon Carmack (INL) and Alison Hahn perform the relevance review. Proposals are also reviewed for feasibility at INL and partner facilities.
- A principal investigator and affiliated team members (co PI's working on the same team or research area) may only submit a total of two proposals per call.

RTE Solicitation Review Process



RTE Guidelines

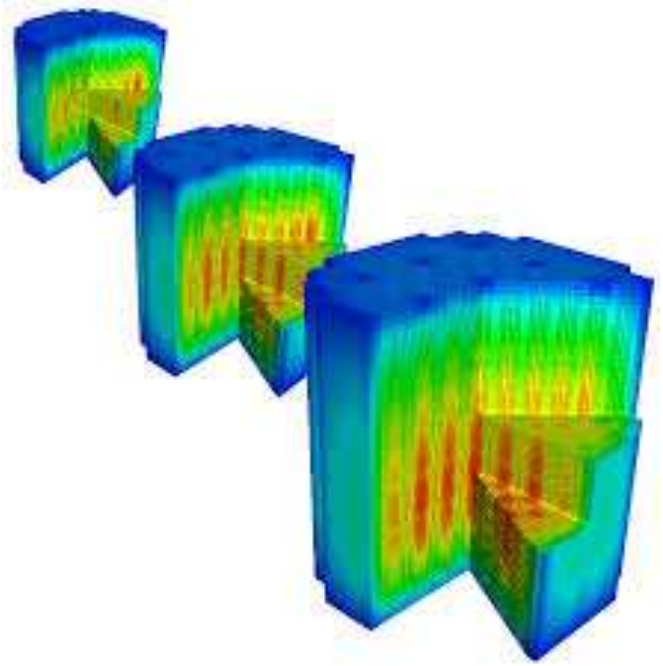
Guidelines for the use of CAES MaCS

- Award for RTE awards is limited to 9 months in duration from date of award.
- Awarded proposals are granted access to the lab for a single researcher per proposal
- FIB time is limited to 6 days in a 6 month period (no more than 2 consecutive days at a time). Maximum of 4 days in a month
- All other instruments are limited to a maximum of 10 days (combined, not per instrument) in a 6 month period with no more than 2 consecutive days at a time

RTE Guidelines

Guidelines for the use of other partners

- Time limits for instrument use are similar to the CAES MaCS
- MRCAT proposals may not exceed five days of beam time
- IVEM beam time proposals limited to five days
- High-performance computing proposals cannot exceed 1 million core hours per proposal



Submitted Proposals FY 2016

76 total proposals were submitted in FY 16

FY 2016 NSUF RTE Awards

Total awards by Organization for FY 16

Argonne National Laboratory	4
Boise State University	3
Florida State University	1
Idaho National Laboratory	5
Illinois Institute of Technology	1
Los Alamos National Laboratory	2
Massachusetts Institute of Technology	3
Michigan State University	2
North Carolina State University	1
Oak Ridge National Laboratory	4
Pacific Northwest National Laboratory	2
Pennsylvania State University	1
University of Florida	3
University of Illinois	1
University of Liverpool	1
University of Michigan	3
University of Oxford	2
University of Wisconsin	1
Total	40

Next call closes on January 31, 2017

FY 16 NSUF CINR Summary

FY 2016 NSUF CINR Summary

- **Letters of Intent- 80**
- **Pre-applications- 67**
- **Invited Full Applications- 35**
- **Full Applications-32**
- **Awards-12**

FY 16 NSUF CINR Awards

First Name	Last Name	Title	Institution
Philip	Edmondson	Correlative Atom Probe and Electron Microscopy Study of Radiation Induced Segregation at Low and High Angle Grain Boundaries in Steels	Oak Ridge National Laboratory
Fei	Gao	Fission Product Transport in TRISO Fuel	University of Michigan
Tyler	Gerczak	Radiation Enhanced Diffusion of Ag, Ag-Pd, Eu and Sr in Neutron Irradiated PyC/SiC Diffusion Couples	Oak Ridge National Laboratory
Ronald	Horn	Irradiation Testing of LWR Additively Manufactured Materials	GE Hitachi Nuclear Energy
Zhijie	Jiao	Feasibility of Combined Ion-Neutron Irradiation for Accessing High Dose Levels	University of Michigan
Yutai	Katoh	Radial Heat Flux – Irradiation Synergism in SiC ATF Cladding	Oak Ridge National Laboratory
Jeffrey	King	Irradiation Performance Testing of Specimens Produced by Commercially Available Additive Manufacturing Techniques	Colorado School of Mines
Florence	Sanchez	Effect of Gamma Irradiation on the Microstructure and Mechanical Properties of Nano-modified Concrete	Vanderbilt University
Julie	Tucker	Role of minor alloying elements on long range ordering in Ni-Cr alloys	Oregon State University
Haiming	Wen	Enhancing Irradiation Tolerance of Steels via Nanostructuring by Innovative Manufacturing Techniques	Idaho State University
Janelle	Wharry	Effects of High Dose on Laser Welded, Irradiated AISI 304SS	Purdue University
Yong	Yang	Understand the phase transformation of thermally aged and neutron irradiated duplex stainless steels used in LWRs	University of Florida

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