
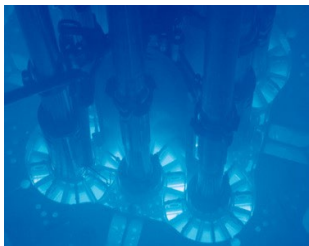


Nuclear Science User Facilities (NSUF) Annual Program Review

**Christopher Barr, PhD
NSUF Program Manager**

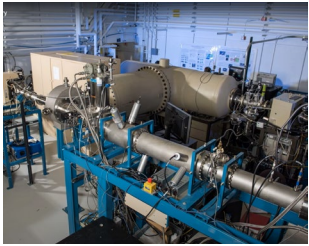



Neutron
Reactors




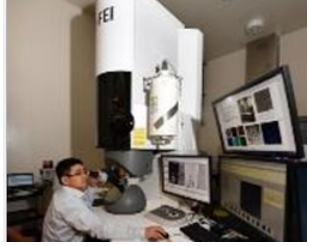
Ten reactor facilities at national laboratories and universities including the Advanced Test Reactor at INL


Gamma & Ion
Irradiation




Five gamma irradiation facilities and ten ion beam facilities at national laboratories and universities


Post-Irradiation
Examination




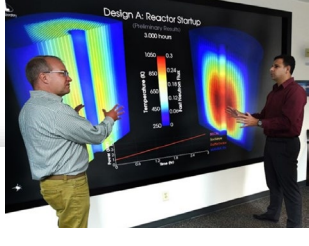
Multiple hot cell and broad post-irradiation examination facilities including advanced characterization methods


Beamlines



Synchrotron and neutron beamlines for nuclear fuel and materials studies


Computational
Resources



Scientific high-performance computing capabilities for advanced modeling and simulation at INL

Cutting-Edge Resources: Access to infrastructure and associated capabilities across 21 partner sites

Open access: Available to industry, academia, and national labs for non-proprietary R&D

Education and training: Workshops and hands-on skill development

Impact: Increase understanding to drive innovation across nuclear energy technologies

Key Program Elements



User Awarded Access

- Rapid Turnaround Experiments
- Consolidated Innovative Nuclear Research FOA
- Technical Expertise and Project Support

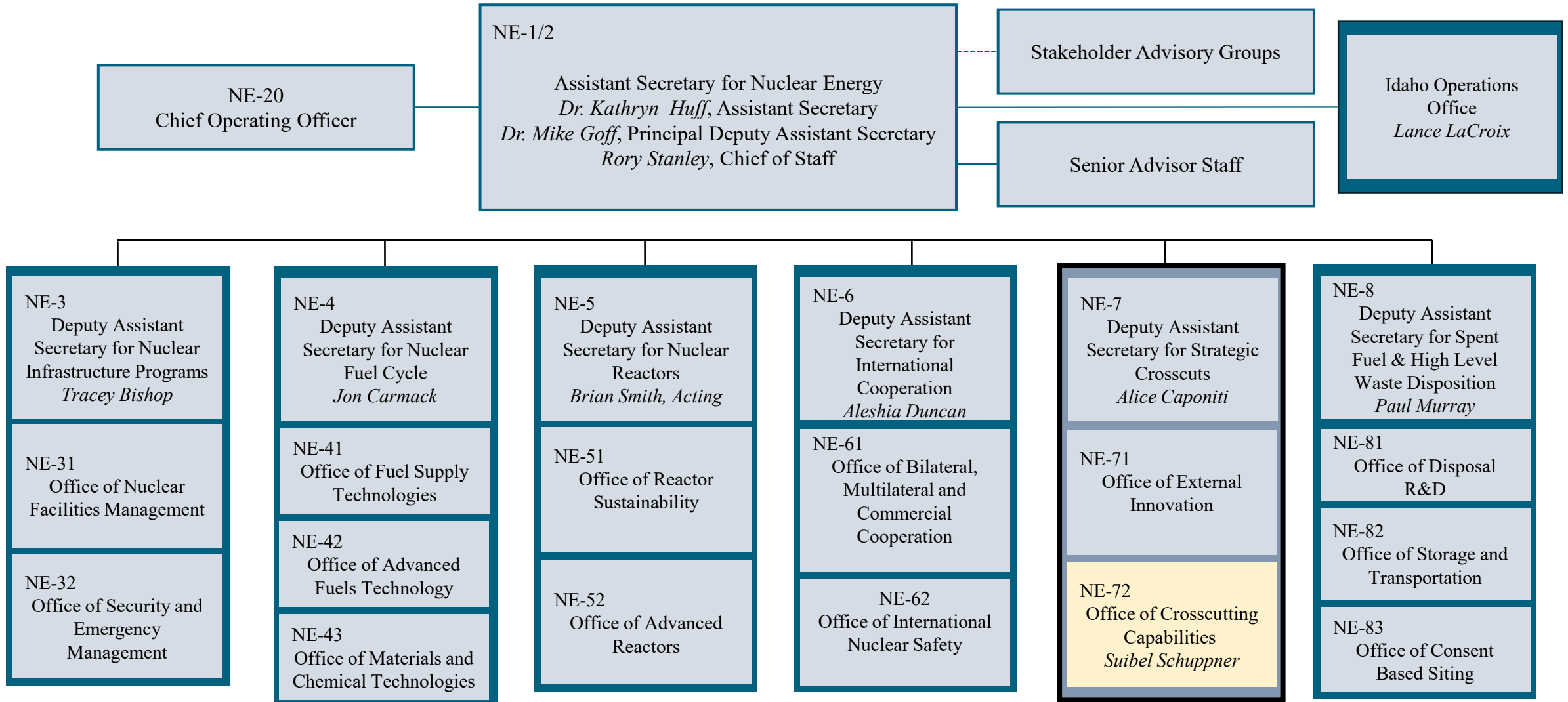
Capabilities and Library

- Nuclear Fuel and Materials Library (9000+ materials)
- Capability improvements and international collaboration library irradiations

High Performance Computing

- User access to high performance computing resources (HPC) at Idaho National Laboratory (INL)
- Nuclear Research Data System (NRDS)

NSUF Location within Office of Nuclear Energy



Office of Crosscutting Capabilities

Conducts research and development (R&D) and makes strategic investments in research capabilities to develop innovative and crosscutting nuclear energy technologies to resolve U.S. industry nuclear technology development issues

Nuclear Energy Enabling Technologies (NEET) Budget Program Elements:

- Crosscutting Technology Development (CTD)
- Nuclear Energy Advanced Modeling and Simulation (NEAMS)
- **Nuclear Science User Facilities (NSUF)**

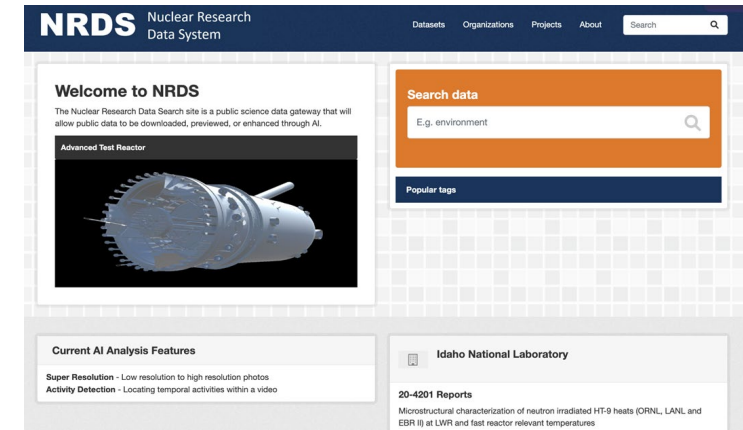
NSUF Budget Overview (Dollars in Thousands):

- FY 2024 Enacted: \$35,000 total, \$12,000 for Computational Support
- FY 2025 Request: \$34,500 total, \$12,000 for Computational Support

NSUF Perspective

- Maintain emphasis on open and competitive user access opportunities for all users across industry, national labs and academia
- Enhance stakeholder engagement and communication to highlight the significant technical contributions and success stories from user access projects
- Provide equitable access to NSUF data
- Expand the user base – new initiatives include future MSI pilot workshop

Encourage active program review participation from stakeholders, feedback, and communication with NSUF program office





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