Nuclear Technology Research and Development

Material Protection, Accounting and Control Technologies

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NEUP Webinar
August 10, 2018
NE-4 Organization Structure

**NE-4**
Deputy Assistant Secretary for Nuclear Technology Research and Development

*John W. Herczeg*

Associate Deputy Assistant Secretary for Nuclear Technology Research and Development:  

*Sal Golub*

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**Alice Caponiti**  
NE-41  
Office of Advanced Reactor Technologies  
- Fast Reactor  
- Gas Reactor  
- Molten Salt Reactor  
- Energy Conversion R&D  
- Special Purpose Applications

**Bill McCaughey**  
NE-42  
Office of Advanced Fuel Technologies  
- Advanced Fuels  
- System Analysis and Integration

**Patricia Paviet**  
NE-43  
Office of Materials and Chemical Technologies  
- Material Recovery and Waste Form Development  
- Material Protection, Accounting and Control Technologies
Mission – Develop innovative technologies and analysis tools to enable next generation nuclear materials management for existing and future U.S. nuclear fuel cycles, to manage and minimize proliferation and terrorism risk.

Objectives

- Develop and demonstrate advanced material control and accounting technologies that would, if implemented, fill important gaps
- Develop, demonstrate and apply MPACT analysis tools to assess effectiveness and efficiency and guide R&D and support advanced integration capabilities
- Perform technical assessments in support of advanced fuel cycle concepts and approaches
- Develop guidelines for safeguards and security by design and apply to new facility concepts

Technology

Development

Applications

Leadership
Methods and approaches for integrative advanced process monitoring to enhance nuclear material control and accounting in used nuclear fuel reprocessing facilities.

This area includes integrating radiation based and non-radiation based data with the goal of providing quantitative analysis and error propagation to supplement traditional nuclear material control and accounting measures resulting improved performance of the safeguards system to meet NRC Material Control and Accountability (MC&A) requirements.
The NTRD Programs are looking forward to partnering with universities to enhance their R&D portfolio and research capabilities.

This call is tailored to research topics that are well suited for university research.

The workscope seeks university researchers who want to actively participate in the MPACT program and enhance interactions with national laboratory research staff.

The NTRD Material Protection, Accounting and Control Technologies management team considers NEUP Principal Investigators to be an integral part of our research programs!

- We encourage and actively seek close engagement with the campaign.
Contact Information

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