

Global Security

at the Savannah River National Laboratory

srnl.doe.gov

We put science to work.™



Coulometer for plutonium measurements

Interested in finding out more?

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Domestic and Foreign Safeguards Program

The Savannah River National Laboratory (SRNL) has extensive experience in supporting implementation of safeguards programs domestically and internationally and provides a conduit for making this technical capability available to the U.S. nonproliferation programs and foreign partners.

SRNL's expertise stems from the Savannah River Site's (SRS) rich history of missions supporting the nation's nuclear weapons stockpile. SRS has a broad base of expertise in implementation of safeguards programs in fuel fabrication facilities, reactors and reprocessing facilities and the operation of supporting analytical laboratory facilities for both destructive analysis and non-destructive analysis. This experience allows SRNL to be a valuable resource in the U.S. and foreign government nonproliferation efforts.

SRNL Areas Of Expertise in Safeguards Program Development

- > IAEA guidelines and International Regime controls of the export of fuel cycle equipment
- > Development and implementation of material control and accounting programs for both bulk and item facilities
- > Development of material balance areas, key measurement points, and identification of associated measurement equipment, methodologies and reference materials
- > Non-Destructive Assay and Destructive Assay methodologies for nuclear material accountability measurements including certification to IAEA and ISO 17025 standards
- > Statistical analysis for NM inventory differences and material balance calculations
- > Internationally recognized expertise in coulometry development and measurements
- > Development of policies, concepts and infrastructure necessary to strengthen and sustain a safeguards system consistent with IAEA guidelines



Workshop on the IAEA Additional Protocol



Savannah River National Laboratory™

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