SAND2024-09625PE

INNOVATE. COLLABORATE. DELIVER.

FRMAC LABORATORY ANALSIS WORKING GROUP UPDATE

National Nuclear Security Administration

Lab Analysis Working Group Update

Programmatic Improvements and Training Development

- **Preparations for CM-25**
  - **CM-25 Dry run drill – Nov 5th -6th 2024**
  - **Fly Away Lab Training – Jan 14th – 16th 2025**
  - **LA-100 virtual refresher – Feb 18th 2025 (contact ecniels@sandia.gov if you are interested)**
  - Cross-training with AFRAT laboratory personnel

- **Official retirement of EPA MERL announced by EPA**
  - This leaves a major gap in the nation's ability to respond. How can FAL fill this gap?

- **Relocation of Fly Away Lab gear to ABQ, NM**

- **New iMatic unit for the Fly Away Lab**
  - **Radon-compensated alpha/beta detector with automated sample changer (50 sample stack) with diameter <2 inches (smears and lo-vol filters)**

National Nuclear Security Administration

Lab Analysis Working Group Update

Drill Activities

- **CM-25 (March 14th – March 21st, 2025)**

  - Participants: All skillsets

- **INL Live radiological drills (June 2025)**

  - Participants: Sample Control Specialists, QA Specialists, and Fly Away Laboratory, Gamma Spectroscopists

- **RAP Regional Drills – Late summer 2025**

  - Participants: Sample Control Specialists, QA Specialists, and Fly Away Laboratory, Gamma Spectroscopists

National Nuclear Security Administration

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Lab Analysis Working Group Update

Current Joint EPA/FRMAC FEMA-NIRT Projects

- Pre-planned analytical strategies
  - What to do about Sr-89/90?
  - Estimating MDAs for in-situ measurements for mission planning
  - How to verify resuspension factor and weathering factor assumptions with field measurements and samples
  - Estimating MDAs for handheld instruments
  - How to design a campaign to confirm no contamination is present

Nuclear Incident Response Self-Paced Learning Opportunities

AS-100: Introduction to Assessment Science
24 ABHP CECs
- 22 module course covering FRMAC Assessment methods for public protection, worker protection, and ingestion pathway *PNNS-KDXC*

Turbo FRMAC Advanced Methods
1 ABHP CEC each
- Administration of Potassium Iodide Derived Response Level Calculation *OMXL-NMBV*
- Analytical Action Level Calculation *HZAK-EWAX*
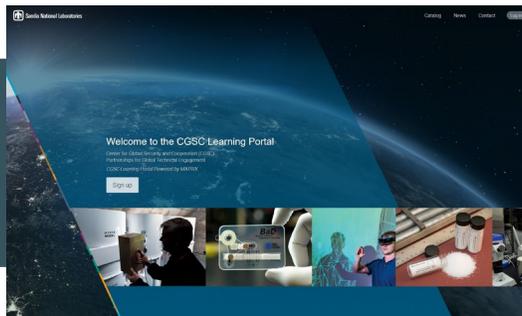
LA-050: Support Laboratory Briefing
- What labs should expect when called to help FRMAC *CMOT-EKHS*

LA-075: Laboratory Data Reporting (Sept 2025)
- Detailed walkdown of data reporting in CBRNResponder

Gamma Spectroscopy Fundamentals *ERXF-ZREQ*
- Detector Calibration Methods
- Sample Analysis
- Software Functions
- Mathematical Instrument Calibration
- True Coincidence Summing Corrections
- In-Situ Gamma Spectrometry

Sandia and partners have developed *free, online* training!
Learn more: https://snl.matrixlms.com/