

CIRMS'12 Radiation Protection

Presentations

- O Svetlana Nour [University of Hawaii/NIST], USDOE Radiological Traceability Program**
- O Jerome LaRosa [NIST], NIST Radiochemistry Intercomparison Program**
- O Jacqueline Mann [NIST], CRMs for Countering RN Weapons of Mass Destruction**
- O John Keightley [NPL], Traceability of activity standardisations supporting Nuclear Forensics**
- O Lisa Meyers [University of Cincinnati], Radiological Chronometry of Uranium Metal Samples**
- O Updates on Current MPDs**

Current MPDs

MPD B.7.2 Traceability to NIST for Reference, Monitoring and Service Laboratories

MPD B.8.2 Sorption of Radioactive Elements in Soils/Sediments/Urban Structural/Other Materials

MPD B.9.2 Atom-Counting Measurement Techniques for Environmental and Radiobioassay Monitoring

MPD C.3.4 Intercomparison Transfer Standards for Neutron Source Calibrations

MPD C.4.4 Improvements for In-vivo and In-vitro Radiobioassay Metrology

MPD C.17.3 Improved Radiation Measurement Infrastructure for Occupational Radiation Protection

MPD C.20.2 Implementation of Support for Personnel Dosimetry Proficiency Testing per ANSI N13.11

MPD E.1.1 Emergency Radiological Response Metrology Infrastructure

MPD E.4.0 Traceability for High Energy Photon Dosimetry for Non-Intrusive Inspection Systems

MPD E.5.0 Traceability of Neutron Cross Sections, Measurements, and Detector Development

New MPDs

- **Title**
- **Objective**
- **Background**
- **Action Items**
- **Resource Requirements**

Hex-chart

Title	Champions	\$k
Intercomparison materials: Smears [⁶³ Ni, ²⁴¹ Am]; Replacement of Cs-137 using ceramics	US ARMY	25
Small Angle Alpha Detector	Mike Unterweger/Ryan Fitzgerald (NIST), John Keightley (NPL)	1,000
Testing the Bq: Traceability to the second	Ryan Fitzgerald, Jackie Mann, Robert Vocke (NIST), John Keightley (NPL)	5,000
High Resolution Bolometry: alpha/beta/gamma spectra, quantification	John Keightley (NPL), Ryan Fitzgerald (NIST), (IRMM)	2,000
NIST Advanced Mass Spec: Hi-Res Multi-detector ICP-MS	Jackie Mann (NIST), John Keightley (NPL)	10,000
Spontaneous Fission Chronometer	Kenneth G.W. Inn (NIST)	5,000
Quantitative surface analysis: DESI	Denis Bergeron, Jackie Mann, Steve Stein (NIST)	10,000

Isotope Separator	Michael Unterweger (NIST)	25,000
Equipment: HClO₄ hood, microwave digestion, automated fusion station, sub-boiling still, micro-XRF	Jerry LaRosa, Jackie Mann (NIST)	3,000
Radiation Detection Calibration Laboratory	Leticia Pibida (NIST), Tim Margrave (ORNL)	200,000
Radiation Physics Laboratory	Steven Seltzer, Lisa Karam (NIST)	150,000
50 MWatt Reactor	M. Arif	10,000,000

TECHNOLOGY AREA: Physical / Mechanical **Title:** **LEAD SERVICE:**
CCG #

REQUIREMENT:

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CUSTOMERS:

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PRODUCT / SOLUTION:

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- Solution 1:
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- Solution 2:
- Solution 3:

APPLICATION:

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IMPACT IF NOT EXECUTED:

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FUNDING PROFILE (\$K): **FY START: 2011**

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
Funding						32,000

POC: