

Institute of Nuclear Materials Management
Accredited Standards Committee N15 (ASC N15)
Annual Report to the Executive Committee
July 2009

This report covers the highlights of the year July 2008 to July 2009. This report is suitable for all readers.

ANSI Audit

In late 2008, ASC N15 underwent a comprehensive mail-in audit conducted by the American National Standards Institute, which was completed in March 2009. To address issues found during the audit, ASC N15 revised its 2008 Operating Procedures, which were reviewed and approved by the Executive Committee, and provided to ANSI for approval. They were approved by ANSI, and ASC N15 is once again fully accredited and operating normally. Accreditation is always held in abeyance until the successful conclusion of an audit, so the brief period of non accreditation is no reflection upon the quality of N15's operations, nor its compliance with ANSI's Essential Requirements.

INMM's 50th Anniversary - Capturing the Historical Significance and Evolution of ASC N15

In light of the auspicious anniversary of INMM, and N15's long history within it, the N15 Board of Officers prepared a paper for the conference (to be given on Wednesday afternoon, in Session D). The paper describes the creation of N15 (circa 1970), its significance to the nuclear materials management community, its evolution over the years since, and current status, priorities and challenges ahead. Two other papers will be given in this session as well; one covering the Guide for the Expression of Uncertainty in Measurement (GUM), and one describing a new standard on estimating quantities of nuclear material in hold-up using NDA methods.

Outreach to the Community

N15 participates in the Nuclear Standards Coordinating Committee (NSCC), formed by the National Institute of Standards and Technology (NIST), NRC, DOE and other Standards Developing Organizations (SDOs) to promote collaboration and cooperation among standards development activities. The NSCC is developing complementary standards with other SDOs on topics of mutual interest. For example, ASC N15 will develop a standard for measurement of nuclear material in holdup in cooperation with ASC N16, which is developing a standard on the use of nondestructive assay measurements for nuclear safety.

Status of Standards:

N15.8 "Methods of Nuclear Material Control at Nuclear Power Plants"

This standard is now published. It can be purchased from www.ansi.org.

N15.19 "Tank Volume Calibration Methods"

All six parts of this ISO standard (18213-1 through 18213-6) have been published. N15 has begun the process of putting to ballot its adoption as an American National Standard, to supersede the N15.19 document.

N15.28 “Training and Qualification of Safeguards Personnel”

The writing group is in need of a new Chair.

N15.36 “Methods for Measurement Control for Nondestructive Assay Measurements of Nuclear Material”

This standard is undergoing final revisions, to incorporate comments made during the voting process, with publication expected in late 2009.

N15.41 “General Principles of Nuclear Material Measurement Control Programs”

The writing group has prepared additional language addressing the expression of uncertainty, and references to ISO quality standards, which was circulated in late 2008 and will be reviewed and hopefully approved during the N15 5.1 Subcommittee meeting in July 2009.

N15.51 “Measurement Control Principles for Destructive Assay Laboratories”

This standard will be revised to include new language guiding the expression of uncertainty. A PINS form was submitted in October 2008 for this action to be undertaken. Charles Pietri will lead the Writing Group for the revision. N15.51 is currently an active standard available at www.ansi.org.

Nuclear Material Hold-Up Standard: A PINS form has been submitted for this new action, which involves the development of a standard to guide the estimation of quantities of nuclear material held up in situ, using non-destructive assay methods, for MC&A, criticality safety, waste characterization, and other purposes. Dave Bracken of Los Alamos National Laboratory and Frank Lamb, formerly of Rocky Flats, are leading this effort. They plan to present a paper on this standard during the INMM annual meeting.

Unique Identification of Items: The concept of a new standard to define the features of unique identification for containers of UF₆ was discussed at the July 2008 N15 meeting. No decision was reached as to whether or not to initiate this project. Discussions among the N15, N14 and other stakeholders are continuing, and the topic will be raised again in 2009.

N15.1 and N15.10 – Classification of U and Pu Scrap. Jeff Allender of Savannah River National Laboratory planned to raise this topic at the Advanced Fuel Cycle Initiative lead meeting, including also those involved in the MOX fuel fabrication plant at Savannah River, as well as DOE and NRC, to discuss these standards and determine a path forward. N15 awaits a report on this effort during the July 2009 meeting.

Possible New Topics for 2009

Recognizing the breadth of scope for which N15 is responsible, the Board of Officers will add some new topics to the agenda for the July 2009 meeting. In addition to reviewing current standards, and current development efforts, the following topics will be proposed for discussion, to determine if a need exists in the N15 stakeholder community in these areas.

- 1) Methods and approaches to categorization of nuclear and radiological/radioactive materials as related to risk of sabotage and/or theft.
- 2) Addressing and defining standard methods and best practices for various high-level physical protection activities which would benefit from standardization and guidance (e.g., system effectiveness evaluation, integrated evaluation of safeguards, safety and security systems.) This will be a brainstorming effort, if sufficient experts from the PP community attend the meeting.
- 3) Unique identifiers for nuclear material containers, perhaps integrated with a DOE effort to define standards for security of wireless networks used in nuclear facilities, also to support efforts to standardize the control of UF₆ cylinders (30B's) mentioned above.

Outreach

All members of INMM, the nuclear industry, vendors, licensees, and regulators, have an important role to play in developing and maintaining N15 voluntary consensus standards. Any interested individuals are invited to contact one of N15's officers to discuss participation.

Respectfully submitted,

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