

MARCUS R. NICHOL

*Senior Project Manager, Quality Issues and
Licensing Actions*

1201 F Street, NW, Suite 1100
Washington, DC 20004
P: 202.739.8131
mrn@nei.org
nei.org



June 4, 2014

Mr. Edward H. Roach
Chief
Mechanical Vendor Inspection Branch
Division of Construction Inspection and Operational Programs
Office of New Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Quality Assurance Program Requirements for National Metrology Institutes as Suppliers of Primary Reference Standards and Calibration Services

Project Number: 689

Dear Mr. Roach:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)¹ is requesting clarification of the U.S. Nuclear Regulatory Commission's (NRC's) position on the quality assurance (QA) program requirements for international National Metrology Institutes (NMIs) as suppliers of primary reference standards and calibration services. By letter dated August 24, 1983², the NRC clarified that for the U.S. NMI, which is the National Institutes of Standards and Technology (NIST) (formerly known as the National Bureau of Standards), it is not necessary for the purchaser to assure that NIST has a QA program that meets the applicable requirements of 10 CFR Part 50, Appendix B. However, the NRC letter is silent on applicability of the NRC position to NMIs in other countries.

NMIs are the highest level of calibration standards in their respective country, and all calibration suppliers must provide traceability of the standards used for calibration back to national measurement standards set by NMIs. NMIs are government institutions and do not permit customers to independently audit or survey their

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

² "QA Program Requirements for Suppliers of Calibration Services," NRC Letter from Uldis Potapovs, Chief Vendor Program Branch to J.L. Wood, Bingham-Williamette Company, August 24, 1983.

Mr. Edward H. Roach

June 4, 2014

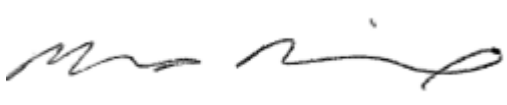
Page 2

quality programs. Calibration laboratories that have a QA program that complies with 10 CFR Part 50, Appendix B, and those which are accredited by a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) trace their standards back to NMIs. In some cases, the calibration service can only be performed by a NMI. Therefore, the ability to use primary standards and calibration services from international NMIs without the need to perform an audit or commercial grade survey of their QA program is important for a robust U.S. nuclear supply chain.

The International Bureau of Weights and Measures (BIPM) is an international organization that ensures world-wide uniformity of measurements and their traceability to the International System of Units. NIST and many other international NMIs are signatories to the BIPM's International Committee for Weights and Measures Mutual Recognition Agreement (CIPM MRA), which establishes the degree of equivalence and consistency of national measurement standards maintained by NMIs. Equivalence and consistency are established based upon comparison across a set of key quantitative measures, a suitable way of assuring quality, and participation in appropriate supplementary comparisons. The CIPM MRA recognizes the degree of equivalence of national measurement standards, and the validity of calibration and measurement certificates issued by participating NMIs. Thus, NMIs that are CIPM MRA signatories are nationally and internationally recognized with proven abilities and disciplines, similar to NIST. Based on the above, it is reasonable to conclude that, similar to NIST, it is not necessary for purchasers to assure that international NMIs, that are CIPM MRA signatories, have a QA program that meets applicable requirements of 10 CFR Part 50, Appendix B.

We appreciate the NRC's consideration of this topic and look forward to the NRC's clarification. If you have any questions or require additional information, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'm nichol', is written over a thin horizontal line.

Marcus Nichol

c: Mr. Michael C. Cheok, NRO/DCIP, NRC
Ms. Andrea D. Valentin, NRO/DCIP, NRC
Mr. Yamir Diaz-Castillo, NRO/DCIP/MVIB, NRC
NRC Document Control Desk