



A2LA News: The Newsletter of the American Association for Laboratory Accreditation__*October, Number 86*

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A2LA News October 2004

Remembering Jackie Sample



It was with great sadness that A2LA learned of the death of Ms. Jackie Sample on September 18, 2004. She was widely regarded by the accreditation community as an outstanding contributor, both nationally and internationally.

Our business relationship with Jackie extended back to 1983 when she first became involved with the offices at NIST/NVLAP. When John Locke, Peter Unger, and Lisa Drake made the transition from NVLAP to A2LA in 1986, she continued her involvement by establishing the NAVSEA-A2LA Memorandum of Understanding in 1991, recognizing the comparability of accreditations by the Naval Shipyard Laboratory Accreditation Program and A2LA.

Jackie had served on the Accreditation Council of A2LA since 1987 and was involved in our efforts to develop a national environmental laboratory accreditation program. A2LA was also very pleased to support her involvement in ILAC, going back to the Sydney meeting in 1998. Since then, she not only participated actively, but was elected chair of the ILAC Public Affairs Committee. Under her stewardship, the committee developed a marketing plan, not an easy task in a global volunteer organization. She made the most significant impact very recently with her final edits to the ILAC Strategic Plan and with her calming influence during meetings of the ILAC Executive Committee.

Jackie was a consummate professional at all times. She will be greatly missed.

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A2LA Inspection Body Accreditation Program Update

The revision of the A2LA Inspection Body Accreditation Program documentation has been completed, and A2LA is now accepting applications. The program now reflects the requirements of *ISO/IEC 17020: 1998 General Criteria for the Operation of Various Types of Bodies Performing Inspection*. To facilitate mutual recognition of the accreditation, applicants are also expected to meet the interpretations as outlined in the joint ILAC/IAF 17020 guidance document.

Some examples of the type of inspections this accreditation program will encompass include:

- Agricultural products;
- Bulk cargoes (e.g. coal, iron ore, petroleum);
- Cargoes in containers and packages;
- Cast products;
- Cranes;
- Electrical equipment;
- Foods;
- Forged products;
- Mechanical equipment;
- Pipelines;
- Protective coatings;
- Rolled products;
- Structures (e.g. concrete, steel, timber);
- Textiles;
- Welding.

Similar to laboratory accreditation, inspection body accreditation demonstrates that an inspection body:

- Is competent to perform specific inspections or specific types of inspections;
- Has a quality system that is documented, fully operational, and addresses and conforms to all elements of ISO/IEC 17020-1998;
- Is operating in accordance with its quality system;
- Conforms to any additional requirements of A2LA or specific fields or programs necessary to meet particular user needs.

All of the necessary application information is available on the A2LA web site at www.A2LA.org. If you have any specific questions or concerns regarding this program, please contact Steve Medellin at 301 644 3228 or by email at smedellin@A2LA.org.

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A2LA Member/Customer Survey on the Benefits of MRAs

In June 2004, A2LA emailed the [A2LA Member/Customer Survey on the Benefits of MRAs](#) to approximately 1700 of our laboratory representatives and members. The purpose of the survey was to gauge our constituents' satisfaction with A2LA's participation in international and national mutual recognition arrangements (MRA).

Background

An MRA is an agreement between accreditation bodies (ABs) to establish and promote equivalency of their accredited laboratories. An AB becomes a signatory to an MRA only after a thorough assessment against ISO Guide 58 (soon to be revised as ISO 17011), including the witnessing of assessments by peer evaluators. When signing, an AB, in general, agrees to:

- Recognize the operation of the other signatory accreditation bodies for testing and calibration as having met the technical requirements for competence set forth in the arrangement. On this basis, each signatory accepts the test reports and calibration certificates issued by signatory-accredited calibration and testing laboratories;
- Acknowledge the calibration and testing laboratories accredited by the other signatories as having met the same technical requirements for competence;
- In response to inquiries, promote the MRA by recommending to users of laboratory services the acceptance of test reports and calibration certificates from laboratories accredited by other signatories.

A2LA is one of the most widely recognized accreditation bodies in the world. We currently hold MRA status internationally with the [Asia-Pacific Laboratory Accreditation Cooperation \(APLAC\)](#), the [European co-operation for Accreditation \(EA\)](#), and the [InterAmerican Accreditation Cooperation \(IAAC\)](#). These recognition arrangements, with the exception of IAAC, are signatories to the [International Laboratory Accreditation Cooperation \(ILAC\)](#) mutual recognition arrangement. For domestic recognition, we are also a signatory to the [National Cooperation for Laboratory Accreditation \(NACLA\)](#). A description of the membership, goals, and spheres of influence of each agreement can be found at the websites.

The potential benefits of A2LA participation in these arrangements include, among others:

- Mutual acceptance of test and calibration data facilitating trade across international borders;
- Significant influence on future trends in laboratory accreditation;
- Leadership status in the international community;
- Reduction in redundant audits for our laboratories.

Survey Results

Seventeen hundred (1700) surveys were emailed to laboratory representatives and members, and A2LA received 185 responses (112 from commercial labs, and 75 from non-commercial labs). The full summary of survey results is available at: http://www.a2la.org/newsletters/oct2004/recognition_survey_results.pdf.

Of those who responded, national recognition (NACLA) was rated of higher import than international recognition (ILAC) in the following areas:

- Factor in choosing an accreditation body;
- Success in reducing the number of assessments;
- Success in opening markets for laboratory services.

International recognition (ILAC), however, appears to rank higher with the users (clients) of accredited laboratory services.

Fewer than half of the respondents have had the need to invoke national or international recognition to gain access to markets. Of those who have, less than 10% has encountered difficulty in the promotion of the acceptance of their laboratory's data.

Over 90% of respondents support A2LA's continued involvement in both national and international recognition arrangements. However, the respondents were almost evenly split as to A2LA's continued involvement should an MRA fail to live up to the stated agreement.

Many interesting and thought provoking comments were received as part of the survey. These comments fell into several categories:

- Support for A2LA's participation;
- A desire for A2LA to drop MRA commitment, thereby lowering cost of accreditation;
- Questions regarding the acceptance of non-signatory calibration data;
- Examples of MRA partners not living up to the arrangements;
- A need to expand the list of specifiers that accept A2LA accreditation.

A2LA is reviewing the comments, and if identified on the survey form, will respond directly to the survey participant.

We wish to thank all of those who took the time to respond. Please be assured that we will use the data gathered from this survey to guide our efforts in the future.

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A2LA Staff Trains Caribbean Assessors

Daren Valentine, A2LA Communications Manager, traveled to the Caribbean nation of Trinidad and Tobago to present a week long assessor training course in August. The course was sponsored by the Trinidad and Tobago Bureau of Standards Laboratory Accreditation Scheme (TTLABS) under a grant from the Inter-American Development Bank-Multilateral Investment Fund (IDB-MIF).

The week-long course taught new assessors the fundamentals of ISO/IEC 17025, preparation for the audit, conducting the audit, and accurate reporting of audit findings and concluded with a two-hour examination. The [26 laboratory professionals in attendance](#) came from such industries as veterinary diagnostics, environmental testing, food and beverage testing, metrology, and others.

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Recent Staff Changes at A2LA

A2LA is sad to report that Timothy Osborne is no longer employed with A2LA. Tim has taken the position of Technical Manager at a commercial calibration laboratory located in Michigan. Tim served as Senior Laboratory Services Officer in the calibration field and as the A2LA Measurement Advisory Committee (MAC) Recording Secretary for the past 4 years. We wish him all the best in his new endeavor.

Tim Osborne's assigned laboratories and MAC Recording Secretary duties have been transferred to Tim Rasinski, Senior Laboratory Services Officer. Tim has been with A2LA since June 2001 and had been serving as the A2LA contact in the fasteners arena and as the A2LA Materials and Transportation Advisory Committee (MTAC) Recording Secretary. As Tim has handled calibration laboratories with his previous laboratory allocation, we are confident that his transition into the calibration team will be smooth.

Tim Rasinski can be reached at 301 644 3232 or by email at trasinski@a2la.org.

Other Changes

A2LA has added Laboratory Services Officer [Mike Hart](#) to take over the day-to-day laboratory functions that were previously assigned to Tim Rasinski. Mr. Hart completed his B.S. degree in 1990, majoring in geo-environmental sciences at Shippensburg University, Shippensburg, PA. Mike was employed with ASTM at the Cement and Concrete Reference Laboratory (CCRL) at NIST from 1992-1997 as a research associate. He most recently worked at State Farm Mutual Insurance Company as a Senior Auto Underwriter Team Leader from 1997 to 2004.

A2LA has also added Laboratory Services Officer [Elizabeth Smith](#) to fill a void in the calibration group. Ms. Smith is a 2003 graduate of University of Maryland Baltimore County in Baltimore, MD, where she obtained a B.S. degree in biochemistry. She most recently worked as a research assistant at Midwest Research Institute, Inc. in Rockville, MD.

A2LA has also added [Ms. Lisa DeNicola](#) on a temporary basis as an administrative assistant. Ms. DeNicola obtained her masters degree in gifted and talented Education from Johns Hopkins University in 1991. She worked in the Montgomery County public school system for 10 years.

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Spring 2005 Training Schedule

Title: [Introduction to Measurement Uncertainty](#)

- January 31-February 1, 2005 – Las Vegas, NV
- April 11-12, 2005 – Atlanta, GA
- June 6-7, 2005 – Cleveland, OH

Title: [Measurement Uncertainty Workshop](#)

- April 13, 2005 – Atlanta, GA
- June 8, 2005 – Cleveland, OH

Title: [ISO/IEC 17025 and Accreditation](#)

- February 2-3, 2005 – Las Vegas, NV
- April 13-15, 2005 – Atlanta, GA
- June 8-10, 2005 – Cleveland, OH

Title: [Assessment of Laboratory Competence](#)

- April 25-29, 2005 – Boston, MA

For additional information, please contact Ms. Julie Stevens, A2LA Training Coordinator, at 301 644 3235 or jstevens@a2la.org.

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AFQAM Presentation

On August 26, 2004, Daren Valentine, Communications Manager at A2LA, presented *Internal Laboratory Audits* at the annual [American Forensics Quality Assurance Managers \(AFQAM\)](#) meeting in Las Vegas, NV. The talk focused on proper perspective when auditing, communication and interpersonal skills, and organization for an efficient audit process. Approximately 120 laboratory professionals were in attendance.

AFQAM was formed in 2001 in an effort to promote standardized practices and professionalism in quality assurance management for the forensic community. It held its first annual meeting in October 2002. Its goals are to:

- Promote and provide quality assurance support to the forensic science community;
- Strive to ensure that the criminal justice community receives forensic science services that meet the highest standards of quality;
- Advocate forensic quality assurance standards.

AFQAM currently has 134 members and its fourth annual meeting is scheduled for October 3 - 7, 2005. For more information about AFQAM, please visit the website, www.afqam.org.

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NELAC Update

Randy Query and Dan Tholen represented A2LA at the 10 th Annual Meeting of the [National Environmental Laboratory Accreditation Conference \(NELAC\)](#). The conference ran from August 23-26 at Charleston Place, in Charleston, SC.

A2LA has been working with the NELAC community over the years and is specifically working with the NELAC Proficiency-Testing Board (PT Board) to obtain recognition as a NELAC Proficiency Testing

Provider Accreditor/Proficiency Testing Oversight Body (PTPA/PTOB). The main responsibilities of the PTPA/PTOB includes conducting on-site assessments of proficiency-testing providers to ISO Guide 43, ISO Guide 34, ISO/IEC 17025, and the NELAC requirements and providing statistical reviews of the provider's PT schemes.

Currently, the NELAC PT Board is conducting a technical review of A2LA's application and supporting documentation. This review is expected to be completed this fall and will be followed by the PT Board conducting an assessment at A2LA's headquarters in an effort to review the implementation of our policies and procedures.

For questions regarding the status of this program, please contact Randy Query at A2LA headquarters at 301-644-3221 or via email at rquery@A2LA.org.

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IEEE Symposium

Once again A2LA attended the [IEEE Electromagnetic Compatibility \(EMC\) Symposium](#) held in the center of Silicon Valley, Santa Clara, CA. The show ran from August 9-13 at the Santa Clara Convention Center with [Trace McInturff and Brad Moore](#) representing A2LA. This year's Symposium provided a platform for a large number of manufacturers and industries to be center stage and showcase their newest technologies within the world of EMC. Thanks to all who took the time to stop by the A2LA exhibit to inquire about our accreditation programs and how to use accreditation to showcase a laboratory's standard of excellence.

Many A2LA accredited laboratories exhibited at this year's symposium. To view a brief slideshow, showcasing the A2LA accredited laboratories, please click [here](#) (requires Flash Player 6 or above).

For inquiries or questions regarding the accreditation programs offered by A2LA, please contact A2LA headquarters at 301 664 3248 or visit us on the web at www.A2LA.org.

Stop by and visit our exhibit next year at the [2005 IEEE EMC Symposium, August 8-12, 2005](#), at the Navy Pier in downtown Chicago, IL. We look forward to seeing you there.

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AOAC Symposium

On September 19 - 23, 2004, A2LA attended the 118 th [AOAC International \(AOAC\) Annual Meeting and Exposition](#) held in St. Louis, Missouri. The conference was held at the Adam's Mark Hotel with Roger Brauning and Ada Hensley attending. This year's presentation encompassed all areas of the food industry, including homeland security issues and concerns. During the exposition, we had a great opportunity to meet new laboratory contacts, as well as an opportunity to discuss the positive effects of A2LA accreditation with our currently accredited laboratories. We would like to thank everyone who showed an interest in our growing biology and chemistry areas and welcome any questions or comments relating to our accreditation programs.

To view a brief slideshow showcasing the A2LA accredited laboratories who exhibited at this year's symposium, please click [here](#) (requires Flash Player 6 or above).

For inquiries or questions regarding all of the accreditation programs offered by A2LA, please contact A2LA headquarters at 301 664 3248 or visit us on the web at, www.A2LA.org.

Stop by and visit our exhibit next year at the [2005 119 th AOAC Annual Meeting and Exposition](#), September 11 th - 15 th, in Orlando, Florida. We look forward to seeing you there.

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New and Updated Documents

- On August 26, 2004, A2LA unveiled its new Inspection Body Accreditation Program. A detailed article pertaining to this program is also contained in this issue of *A2LA News*. The [application forms](#) and [requirements document](#) are available on the A2LA website.
- On August 26, 2004, A2LA issued a combined *ISO/IEC 17025/Environmental Program Requirements Checklist*. This checklist contains the full text of ISO/IEC 17025 in addition to the specific environmental program criteria. Laboratories will be given the option of receiving and completing the combined checklist in lieu of the ISO/IEC 17025 checklist alone during their renewal or initial application process. However, since it contains the full text of the standard, new applicants to the environmental program must sign an affidavit attesting to their ownership of the standard
- On September 14, 2004, A2LA issued a revision to the *Environmental Lead (Pb) Program Requirements* and the associated *Assessor Checklist: Environmental Lead (Pb) Program Requirements*. A minor change was made to these requirements in order to remain in keeping with the requirements issued by the EPA. Implementation of the change is to be made immediately.
- On September 27, 2004, A2LA issued a revision to the *A2LA Construction Materials Testing Assessment Checklist*. It is now available on the website or as a hardcopy upon request. Implementation of the revision is to be made immediately.

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Including the UUT in best uncertainty estimates

"Best uncertainty" is defined as the smallest uncertainty of measurement that a laboratory can achieve within its Scope of Accreditation when performing more or less routine calibrations of nearly ideal measurement equipment.

"More or less routine calibrations" means the laboratory shall be able to achieve the stated uncertainty in the normal work that it performs under its accreditation. Obviously, there are instances where the laboratory would be able to do better as a result of extensive investigations and additional precautions, but these cases are not covered by the definition of best uncertainty unless it is the outspoken policy of the laboratory to perform such rigorous investigation (in which case these become the "more or less routine" type calibrations of the laboratory).

Inclusion of the qualifier "nearly ideal" in the definition means that best uncertainty should not be dependent on the characteristics of the device to be calibrated. Inherent in the concept of being nearly ideal is that there should be no significant contribution to the uncertainty of measurement attributable to physical effects that can be ascribed to imperfections of the device being calibrated. However, **it should be understood that such a device should be available**. If it is established that, in a particular case, even the most ideal available device contributes to the uncertainty of measurement, this contribution shall be included in the determination of the best uncertainty, and a statement should be made that the best uncertainty refers to calibration of that type of device.

Best uncertainty is, therefore, not a theoretical estimate of the smallest uncertainty a laboratory could possibly achieve. It is based on the behavior of real (albeit "nearly ideal") devices under test and should be supported by experimental evidence. For example, in interlaboratory comparisons calibration laboratories are usually asked to perform the calibration under the conditions necessary to achieve their best uncertainty. This cannot be done if the best uncertainty estimate is based on a hypothetically perfect UUT (e.g., with infinite resolution or zero repeatability).

It is worth emphasizing that the best uncertainty relates to the laboratory's normal measurement process and that the laboratory must be able to achieve its claimed best uncertainty in the normal course of its work. Again, best uncertainty is not the very smallest uncertainty that can be achieved under extraordinary circumstances when calibrating a hypothetical, perfect device. When best uncertainty is estimated based on the laboratory's normal processes and conditions and real UUTs, potential customers then have a valid basis for comparing calibration laboratories based on their best uncertainties.

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The Difference Between Testing, Inspection and Certification

If you ask most people what conformity assessment is, they would probably have no idea. But it is certain that almost all of them have seen examples of it: the "UL Listed" sticker on the back of their computer monitor or the "Inspected by 12" sticker on their Hanes underwear. Evidence of testing, inspection, and product certification activities is all around us, but what do they mean and how are they related? *ISO/CD 17000 Conformity Assessment - Fundamentals and Vocabulary* defines these activities as follows:

- Test – determination of one or more characteristics according to a procedure;
- Inspection – examination of a product design, product, process or plant and determination of their conformity with specific requirements or, on the basis of professional judgment, general requirements;
- Certification – third-party attestation (3.3.1) of product, process or management system conformity, or fulfillment or requirements for personal competence;
- Conformity Assessment- activity or activities related to demonstrating whether or not an object of conformity assessment (3.1.2) fulfils or continues to fulfill specified requirements.

A testing laboratory (ISO/IEC 17025) performs an analysis of a product in accordance with a procedure to determine its characteristics and then generates the results. For example, determining the Rockwell hardness in accordance with ASTM E18 of a sample of metal. The result of the test is the hardness characteristic of the sample of metal. The test, in and of itself, is not a conformity evaluation. Rather, it contributes to the conformity evaluation.

An inspection body (ISO/IEC 17020) takes the results one step further. The inspection body uses the results from the examination (measurements, testing or gauging) of the product to determine its conformity with specified requirements. One of the main distinctions between inspection and testing is that many types of inspection involve professional judgment to determine conformance with the requirements. The inspections only relate to the specific product or process that was examined, meaning there is a direct determination of conformance. An inspection of an elevator in a building does not mean that all elevators that were produced of the same make and model are in conformance with the standard(s).

Product certifiers provide assurance that a product conforms to specific requirements in a different way. In essence, the product certifier (ISO Guide 65) assesses the product against any relevant requirements. The products to be tested or inspected may be from the market place, manufacturer's stock, or a combination of both. Based on the results of the conformity assessment, the product certifier grants a license to the manufacturer to issue certificates and/or place a mark of compliance on all products that are produced under that license. Since every item may not be tested or inspected, this is considered an indirect determination of conformance.

Thought of in terms of a dartboard, testing activities would be the center or bull's eye, inspection body activities would be the middle ring and product certification would be the outer-most ring. The testing, measuring, or gauging activities form the core of both inspection and product certification. The application of professional judgment to the results to make a statement of conformance related to a specific product or process expands the assessment into an inspection. Extrapolation of the testing or inspection results to make a statement of conformity to an entire product line expands the assessment to the outer-most ring, product certification.

All of these activities are closely tied to each other, and each one serves a valuable purpose in virtually every part of our lives. Your car, your computer, the food you eat, the clothes you wear, the elevator you rode this morning and almost every other product that you use or consume at some point have had a conformity assessment in one form or another. We all expect the products we consume to meet certain standards, and these activities help to make sure that the consumer's expectations are met. So remember, conformity assessment is much more than a sticker on your underpants.

A2LA Now Accepts



Please call Teresa McCarthy
at 301-644-3229
if you would like to pay by credit card.

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