

Southern Weights & Measures Association

101st Edition

SWMA Newsletter

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From Standardization News

The following are excerpts from an interview with N. David Smith, Chairman of the ASTM Board of Directors. To view the complete interview go to the ASTM website www.astm.org, click on Standardization News, click on SN Archive, click on January 2005.

N. David Smith

In his position as chief deputy commissioner of the North Carolina Department of Agriculture and Consumer Services in Raleigh, N.C., N. David Smith wears many hats. The department's scope of activity is so broad that in the course of a typical week, Smith will find himself dealing with homeland security issues, natural disasters such as the flooding the state experienced after the hurricanes of 2004, ticket sales and other concerns for the annual State Fair, the management of North Carolina's research stations, animal welfare, the North Carolina honeybee industry, agricultural pest infestation, and foreign animal disease threats.

The Department of Agriculture and Consumer Services is responsible for a broad range of issues involving the environment, consumer protection, health issues, marketing of agricultural commodities and finished products, surveillance and prevention of animal and plant diseases, recommending soil and plant modification strategies, two large agricultural fairs and five farmers' markets, and providing the agricultural research platforms for North Carolina State University and the North Carolina Agricultural and Technical State University.

Smith received his B.S. degree in biological and agricultural engineering from N.C. State University in 1972, the year he began his career with the N.C. Department of Agriculture as a staff engineer. In 1976, he was selected to direct the liquefied petroleum gas inspection program in the Standards Division, and in 1979 he was named director of the Standards Division, serving in that capacity until January 2001. Smith has completed the Government Executives Institute Program at the University of North Carolina and the Top State Managers Executive Education Program at Duke University.

An active member of ASTM Committee D02 on Petroleum Products and Lubricants since 1987, Smith served as chairman

of the committee from 1994 until 1999. He has held many other roles within D02. Smith was secretary of the Volatility Section in Subcommittee D02.A0 on Gasoline and Oxygenated Fuels and chairman of its Antiknock Section; he served on the Executive Subcommittee; he is a member of the Task Group on Reformulated Gasoline; and he chaired the D02 Balanced Voting Task Force. Smith chaired the D02 Centennial Committee in preparation for the Committee's 100th anniversary in 2004. For his many contributions, D02 has honored Smith with the Award of Appreciation (1995), the Sydney D. Andrews Scroll of Achievement (1998), the Award of Excellence (1999), and the Lowrie B. Sargent, Jr., Award (2001). Smith served as vice chairman of the ASTM board in 2003 and 2004.

Also involved in professional groups in addition to ASTM International, Smith is a past chairman of the National Conference on Weights and Measures and serves on numerous NCWM standing committees and task forces. He is actively involved in the Southern Weights and Measures Associations, one of four regional weights and measures groups in the United States. Smith is an SWMA past chairman and currently serves as secretary-treasurer.

How did your work in the N.C. Department of Agriculture and Consumer Services result in your joining ASTM Committee D02 on Petroleum Products and Lubricants?

In 1979 I became director of the Department's Standards Division. That division is responsible for inspection programs involving gasoline and oil, weights and measures, and liquefied petroleum gas. The basis for the gasoline and oil inspection program is the adoption by reference of a series of ASTM International standards. In the early 1980s, there was considerable turmoil in the petroleum industry as alternative fuels entered the market. We were receiving complaints from motorists and distributors as to what was an approved fuel that could be used by the motoring public. I felt I needed to be more involved in the development of fuel standards if I was expected to carry out the requirements of the gasoline and oil inspection law. In other words, I wanted to be a player and fortunately, management agreed to support my involvement.

ASTM International benefits greatly from the participation of state agencies in its standards development process, and could benefit from even more. Can you describe the mutual advantages derived by both ASTM and state governments when agencies become actively involved in standards development?

State regulatory agencies can either develop their own standards or they can adopt standards developed by recognized standards development organizations. With shrinking budgets and staffs, it is very difficult to find the resources to develop standards in-house. Plus, the regulated community wants to comply with more uniform standards as opposed to 50 different state standards addressing the same issue.

Perhaps the latter issue is an offshoot of so many business mergers. Companies that once operated strictly within one state now operate in many states, and state-unique standards are a drag on their bottom lines. ASTM is the perfect forum for participating in the standards development process. A state representative has the opportunity to put forth his or her ideas plus the opportunity to participate in discussions with the stakeholders. Frankly, I have found the latter to be of great benefit because I could identify the major players and engage them in one-on-one discussions.

The standards developed by D02 are perfect for state involvement because petroleum products and the accompanying test methods are so universal. While my involvement has been on the performance side of the standards, there are other state agencies that are concerned about air quality and contamination from petroleum spills. Those agencies benefit from adopting ASTM test methods in their rules because petroleum products are not unique to a particular state. Granted, there are requirements unique to some states like California and there are some regional differences, but the test methods are the same.

From a policy perspective it makes no sense to waste time and resources to develop unique standards when the world's experts are actively engaged in working on the issue. You need to be a player and the only way to get in the game is to participate in ASTM International activities. ♣

JURISDICTIONAL NEWS

GEORGIA

In the state of Georgia we are seeing a trend of larger gas stations being built, this combined with the loss of 3 retail fuel inspectors in the last 2 years has made it difficult to keep up with our routine inspections and complaints. Our fuel inspectors have been giving a valiant effort to keep up with the demands of fuel inspections given our present shortage of manpower. Congratulations to Heavy Scale Inspector Todd Sweat for being promoted to the position of LP Gas Inspector. We would like to welcome aboard Mike Tanner, who is replacing Todd on the Heavy Scale Truck. We would also like to congratulate Atlanta office clerk Doris Powell for being promoted to the position of Metrologist I in the Metrology Lab.

State Metrologist Rich Lewis and Field Supervisor Chuck Royal recently attended the 2005 SEMAP meeting in Wilming-

ton, N.C. They received training in such areas as laboratory technical management, software verification, and uncertainty analysis. We would like to thank Van Hyder from the North Carolina Lab for coordinating the SEMAP meeting this year.

Fuel Calibration Inspector Steve Garrett was recently called up for active duty with his National Guard unit. He is currently serving in Iraq and is expected to be gone for one year. We will keep him and all our active military personnel in our prayers and wish them the best of luck and a speedy return to the states. ♣

MARYLAND

- **FOR SALE:** One hundred eighty seven 50 pound cast iron weights manufactured by various weight companies. Weights meet NIST Handbook 105-1 and come serialized to your specifications, painted with silver aerosol paint, and will come with Maryland Weights and Measures certification (traceable to NIST). Weights are \$50 each plus shipping (or can be picked up in Annapolis, Maryland). Please contact the Maryland Department of Agriculture, Weights and Measures Section, Steve Barry at 410 841-5790 for details.

- On March 1-3, 2005, the Maryland Department of Agriculture, Weights and Measures Section sponsored a three day Training School on the operation of electronic registers used for the delivery of petroleum products and liquid propane gas.

Weights and Measures inspectors from Maryland, Virginia and West Virginia representatives from NIST, and members from the service industry attended. The class size was thirty people.

The program had representatives from two firms each day. The manufacturers giving presentations were Actaris, FMC Smith, Liquid Controls, Midcom, Touch Star and Veeder Root.

Presentations were given in the morning detailing the registers operation, calibration and the setting and sealing of various parameters.

The afternoon session allowed each person to ask questions directly to the representative and have time for a "hands on" experience.

The seminar concluded on the afternoon of March 3, 2005. The response from the attendees was very positive.

The Weights and Measures Section thanks those who gave presentations and our guests from other jurisdictions. It was a beneficial learning experience for all.

- On March 2, 2005, Mr. Kazuo Neda, Head of Dissemination Technology Division National Metrology Institute of Japan and Dr. Yukinobu Miki, Deputy Director of the National Metrology Institute of Japan (NMIJ), Ms. Akemi Nishio, Deputy Director of Japan's Ministry of Economy, Trade and Industry (METI) and Mr. Toshihiro Atsumi, Researcher for Mitsubishi Research Institute, Inc visited our facilities.

Our Metrologist Steve Barry and Program Manager Bob Eaves, met with the visitors and answered questions concerning our Weights and Measures Law and Regulations, our enforcement policies, our inspection procedures, our

laboratory policies and standards, etc. Steve also gave our visitors a tour of our various laboratories.

Our visitors indicated that they enjoyed their visit and that the information they obtained was very beneficial to them.

- The Annual Maryland Department of Agriculture Open House was held on Saturday, March 19, 2005. The theme for this year's Open House was "Maryland Agriculture: Our Heritage, Our Future".

We had on display, a gas pump and 5 gallon prover, packaged commodities and a package testing scale, old scales used in stores dating back to 1900, and a cord of firewood which was given away in a raffle. Many of our labs were also on display. We provided a scale for those attending the Open House to obtain their correct weight. It was amazing how many people said our scale was wrong because they "couldn't possibly weigh that much"!

Representing our section at the Open House were Program Manager Bob Eaves, Inspectors David Andrews, Mike Frailer, Bill Hall, Ethan Halpern, Leila Smith and Aaron Webb, and Laboratory staff member Zenon Waclawiw.

Recent Civil Penalties

- On January 6, 2005, we received \$750.00 for a civil penalty assessed against Giant Food #336, Wheaton, Maryland. The civil penalty was assessed due to short-weight violations found during routine package inspections performed at the establishment.
- On January 6, 2005, we received \$1,000.00 for a civil penalty assessed against Korean Korner, Wheaton, Maryland. The civil penalty was assessed due to short weight violations found during routine package inspections performed at the establishment.
- On March 18, 2005, we received \$150.00 for a civil penalty assessed against McKay's Food & Drug, California, Maryland. The civil penalty was assessed due to short weight violations found during routine package inspections performed at the establishment.
- We currently have four additional civil penalties pending against other establishments for violations found during package inspections. ☞

NORTH CAROLINA

Measurement Section

Springtime is just around the corner. The Measurement Section is preparing to begin our usual inspections on seasonal items. Fertilizer, pine bark, potting soil, decorative stone, mulch and other items that are seen in more abundance this time of the year are what we will be focusing on. We especially try to get to locations that package these items in North Carolina early enough to prevent short weight packages from getting to retail establishments as well as other states.

During the past few months, due to the weather conditions, our attention has been more on indoor weights and measures activities. Scanning errors have been our biggest concern with 14% of the locations tested exceeding the 2% error rate allowed. Most of the companies have worked well with us to get themselves back into compliance by our return inspection.

Gasoline and fuel prices are keeping the number of concerns and complaints at an all time high. As usual these concerns are a top priority. The consumer is our best source of information for finding these problems.

We have had several changes in our inspection staff since our last newsletter. Bill Edwards retired January 1st and will be greatly missed as he was in charge of our taxi meter inspection program. Terry Tatum, one of our four calibrators, the guys who test terminal, rack, VTM or other large volume meters has also retired leaving a large void in that area of inspections. Gerald Price has been promoted from a G & O Inspector to a Retail Weights and Measures Inspector, replacing Bill Edwards and Dewayne Leatherwood has been hired to fill the territory in the western part of the state vacated by Jack Leatherwood (no relation to Dewayne) at the end of last year. We have three vacant positions left to fill and then we should be in great shape.

Motor Fuels Section

Melissa Spencer has been promoted to Lab Supervisor. She is responsible for our day to day operations in the lab and coordinating with field inspectors concerning condemned products or complaints. Melissa previously worked in the lab as an Octane Analyst and as a Chemist I.

We have added a ninth portable octane analyzer (Zeltex). Our goal is to have one for each field inspector (10) and one in the lab. Testing octane on site has continued to be important since many of our octane problems found at stations that have blend pumps and/or single hose dispensers usually involve the pumps themselves and not the fuel in the storage tanks. Worn parts, valves that don't close, wrong computer chips, even clogged filters can cause the octane to be low on a blend or single hose MPD. This has been an excellent screening tool for us and helps us to work with a pump technician on site to insure the proper adjustments or repairs were made.

LP-Gas Section

The LP-Gas Section is back to full strength with the addition of Jamie Stokes, performing inspections of the northeastern area of the state. Jamie was hired on January 18th.

In January, Richard Fredenburg attended a meeting at AGA in Washington, DC, concerning the potential for merging NFPA 58 and NFPA 59. It was agreed that the two LP-Gas standards would not be merged at this time. Greater participation by the natural gas industry and by government agencies in the development of NFPA 59 (Utility LP-Gas Plant Code) was promised. In March, he participated in the NPGA Technology and Standards Committee meeting in Las Vegas. Several potential proposals for the LP-Gas Code were passed and await approval by the NPGA hierarchy to be submitted to NFPA.

Standards Lab

The SEMAP meeting went well at Wrightsville Beach despite the weather, which was cold, wet, and windy. Honest, it was warm and sunny at the beach both the week before and the week after! Well, we are metrologists, not meteorologists.

We appreciated the introductory remarks from newly appointed Assistant Commissioner for Consumer Protection, Howard Isley. Mr. Isley comes to the NC Department of Agriculture & Consumer Services with a quality assurance background with Goodmark Foods. This background gives him an excellent understanding of the importance of quality assurance in our programs.

We also appreciated Stephen Benjamin's attendance for the technical management sessions. His perspective and observations as division director were very helpful.

Van did an excellent job in selecting the hotel, planning the tour of the NC Aquarium, arranging for the group dinner, and conducting the meeting. He put a lot of work into the week and deserves thanks for a job well done.


All states were represented at SEMAP except for Tennessee where Bob Williams is looking for a new metrologist to replace Tom Smith. Tom has moved on to another position after an extended military deployment. We'll miss Tom and wish Bob well in finding a metrologist to fill Tom's shoes. As usual, Georgia Harris from NIST (with the help of Val Miller) did an excellent job of presenting training applicable to all of our labs.

In addition to the states, several SEMAP associate members attended. Their participation was very beneficial. Also, representatives from Mettler Toledo and Sartorius attended. Mr. Reinhard Schwind with Sartorius Corporation gave an excellent presentation on mass comparator technology and influence factor of the laboratory environment. Mr. Doug Cooper of Tour Andover Controls gave an excellent presentation on design concepts for precision mass laboratories.

We were honored to have a visit from Dr. Zeina Jabbour of the NIST Mass and Force group. Dr. Jabbour discussed a new proposal to redefine the kilogram in reference to either Avogadro's number or Planks constant. Though beneficial to elec-

trical physics, either approach would demote the definition of the kilogram to a secondary constant. Initially, the mass of a kilogram would shift approximately 1.7 milligram if this proposal were accepted. However, the value of the kilogram would be in flux for several years afterwards, until the experimental data agrees with the theoretical. This potential fluctuation is estimated to be on the order of 1 milligram per kilogram based on differences between current experimental methods. This could have severe consequences to industries such as pharmaceutical companies and other high technology industries. Hopefully, a CCM (consultative committee on mass) recommendation to delay consideration of this change until 2011 will pass, giving time for the experimental data to define the kilogram based on a natural constant.

We continue to work with implementation of the Measurement Technology Laboratory (MTL) automated mass measurement system (AMMS). We are still having significant issues with the program and are not able to use it yet. Hopefully we'll have better news by the next news letter.

We look forward to meeting with our new Commissioner of Agriculture, Steve Troxler on April 1, 2005. He will tour our lab and be given a presentation on our field inspection program. 



SEMAP in front of Fort Fisher Satae Aquarium

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