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Section Coordinator

Hosted by: DTE Energy

The Michigan section held another outstanding meeting on November 12, 2009. With over 60 attendees, the Metro Detroit area continued to show its strong commitment to measurement science. Furthermore, this demonstrates our worthiness as a host for a future NCSLI Conference.

Rhonda Carradine of DTE Energy hosted us at the Enrico Fermi Nuclear Power Plant in Monroe, Michigan. At 1.1 million kilowatts, the DTE Energy Fermi 2 plant represents 30 % of Michigan's total nuclear generation capacity. This single plant is capable of producing enough electricity to serve a city of about one million people. Fuel costs are about half those of the most efficient coal-fired plants. Fermi 2 began commercial operations in 1988. Since that time, the plant has produced more than 143 billion kilowatt hours of electricity for Detroit Edison customers. The plant employs about 900 workers and produces about 15 % of the power generated by Detroit Edison power plants.

Todd Connor, DTE's plant manager, gave the audience an overview of how DTE Energy turns nuclear energy into electricity. This is a very precise process comprised of over 30 million components plant wide. As a result, their metrology laboratory is heavily relied upon to support the operation with their precision measurement capabilities. With radiation exposure being a concern to the average person, Todd explained that even though he works in a nuclear facility, he receives less radiation exposure than what the average individual is exposed to by watching television a few hours per week.

Peter Coomar of Monroe County Community College provided us with an overview of their metrology program. It was refreshing to hear there are resources to nurture our future metrologists. Something, as a metrologist, we all take for granted is the ability to use basic measuring tools, like micrometers for example. Peter explained that learning this is a challenge for the non-metrologist. It is so much so that they spend six to seven weeks on that area alone. This really puts things into perspective when you consider the amount of non-metrologists that come to us for measurement expertise. Often what we find trivial and routine is not the case for everyone.

After Lonnie Spires of Dynamic Technology provided us with the customary NCSLI Board of Director's update, Phil Smith from A2LA gave a presentation on specifying accreditation services. He utilized some visually appealing photographs from some of

the Air Force's standards labs to keep the audience focused. It was a nice touch. He explained how calibration services can be confusing and the customer almost has to be an expert when ordering them. Certainly one hopes they get what they are paying for but the key is to be certain you are ordering what you need in the first place. Because calibration certificates can be confusing, it is imperative that they are reviewed when they are received from vendors. Initialing them to signify they have been reviewed is also a good practice to employ.

Dave Stuart of VTI Instruments, formerly VXI Technologies, explained how they "get more instrumentation in a smaller package" utilizing the LXI platform. We learned that LXI combines the benefits of GPIB and Ethernet by eliminating bulky GPIB cables and replacing them with length friendly Ethernet cables. Furthermore, LXI is not simply an Ethernet connection; there are certifications required in order for equipment to bear the LXI logo. This is the newest and fastest growing measurement platform so we are sure to see more of these instruments in our calibration laboratories soon.

After an excellent lunch provided by DTE Energy, the afternoon was dedicated to a general, open forum discussion with a primary focus on delay dating. For those that are unfamiliar with the concept, the basic premise is that equipment is calibrated, and then placed in secure storage until the equipment needs to be utilized. The calibration "clock" does not start until the equipment is first used. This can effectively extend calibration intervals for lesser utilized equipment.

Patrick Butler of Robert Bosch, LLC, moderated this session. First, he went over some presentations that were given at other NCSLI section meetings regarding the topic. Then the audience joined in which helped to point out the pros and cons of a delay dating system. Conversations centered on questions such as, "Can any instrument be placed into this state of abeyance?" and "What is the maximum abeyance interval?" These questions are not easily answered because they are unique to an organization's quality system. Regardless, there are some core components of a delay dating system that must be understood.

- Control of the equipment (to ensure first use is known)
- Storage environment (temperature, vibration)
- Dimensional vs. electrical equipment
- Implement by class or specific device
- Equipment history (real data to drive decisions)

Of course there are several other factors to consider and there is no one correct way to implement a delay dating system. The purpose of the forum was to arm the audience with information that they could take back to their individual organizations. Ultimately this is a tool that needs to add value to an organization and not create an administrative burden. There is no doubt that this topic will continue at the spring meeting.



1135 Michigan Section Meeting.

The meeting closed with door prizes provided by the NCSLI Business Office, A2LA, and DTE Energy. After that, several attendees took a tour of the calibration laboratory.

Bosch, DTE Energy, Dynamic Technology, VTI Instruments,

A2LA, and the attending organizations represented continue to uphold the reputation that NCSLI has built for the measurement community. I want to thank each of them for their continued support and look forward to seeing them all soon.

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