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Editor: ***Jane Pulaski***

The NABCEP Newsletter highlights activities about its certificants and other stakeholders. There is no fee for this newsletter which is distributed six times/year and published on NABCEP's website.

If you have comments about this newsletter, email Jane Pulaski at janep@irecusa.org. To subscribe to this newsletter, click here.

As always, thanks for your interest in and support of NABCEP.

Jane Pulaski
Editor

In this issue...

From the Chair

NOTE: Last month, Pete Sheehan stepped down as Executive Director of NABCEP. During his tenure, many significant milestones were achieved, and today the NABCEP certification is highly regarded and respected both at home and abroad. Pete worked exceptionally well with NABCEP's Board of Directors, its volunteers and certificants. Pete's unshakable commitment, professionalism and friendliness will be missed by all of us.

Karen Christopher, former NABCEP administrative manager, has returned to oversee NABCEP's day-to-day activities. You can reach Karen at NABCEP (518.899.8186), or by email at kchristopher@nabcep.org.

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The most recent exam for NABCEP PV and Solar Thermal Installer Certification, held on March 24th at 25 locations across the U.S., saw a record number of candidates sitting for both exams. A huge thanks goes to our administrators and proctors who adhere to rigid exam protocols.

As a result, NABCEP happily announces the addition of 74 PV and 26 solar thermal certified installers, bringing the total number of certificants to 405 located in 40 states, Canada and Honduras (365 PV certificants, 40 solar thermal certificants). The NABCEP website has been updated with the new certificants.

We've also seen a rise in the number of inquiries to NABCEP about becoming certified and taking relevant training courses. Most information about PV and solar thermal certification can be found on the NABCEP website and within the respective PV and solar thermal Candidate Information Handbooks.

Mark your calendars now: the next date for the PV and solar thermal certifying exam is **Saturday, September 29, 2007**. The application period is now open. Applications are due July 27th. Check the NABCEP website for details.

Installer's Corner

Updated PV Task Analysis

The North American Board of Certified Energy Practitioners (NABCEP) announces that the Task Analysis for Solar Electric/PV Installers has been updated to keep current with technology and National Electric Code changes. NABCEP reviews the Task Analysis every three years.

The PV Task Analysis defines the general set of knowledge, skills and abilities typically required of practitioners who install, maintain and troubleshoot photovoltaic (PV) systems. The Task Analysis, divided into eight tasks and corresponding sub-tasks, covers all facets of PV system operation including safety considerations, site assessment and system design, adapting the electrical and mechanical designs, and the commissioning and troubleshooting of systems.

The revisions were based on the result of three very inclusive meetings of the PV Technical Committee.

Commenting on PV Task Analysis, NABCEP PV Technical Committee Chair Jim Dunlop stated, "The Committee worked diligently to ensure that this Task Analysis remains relevant to changes in industry practices. As always, we carefully considered and discussed workplace safety practices as described in OSHA, and proper sizing of conductors and components to ensure the safety and integrity of the PV system."

The PV Task Analysis can be downloaded from the NABCEP web site.

Specific revisions to the PV Task Analysis include:

--Adding a statement in the Purpose and Scope section which reads: "NABCEP certification is not a license to practice, nor does it supersede any licensing requirements. NABCEP Certificants are expected to comply with all applicable federal, state and local laws and regulations governing the profession."

--Change sub task 1.5 to Very Important (from important) to emphasize importance of having someone with CPR training on the site.

--Change sub task 1.9 to Very Important (from Critical) because the consequence of

error is not critical if environmental hazards are not identified.

--Change sub tasks 5.6 and 5.7 pertaining to voltage drop calculations and the array operating voltage range, respectively from critical to very important, reflecting that the consequences of error for these calculations are not critical safety issues nor a matter of code compliance.

The Committee continued its discussion regarding any changes to the Requirements for Certification. The Committee reaffirmed its belief that the current requirements adequately address the different backgrounds of candidates in the seven current pathways and that the required experience and training are still very relevant, fair and equitable.

Featured Certificant

Blair "Tump" May, SolarWinds, Northern Lights

Between the May brothers, they've got the east and west coasts covered.

The May brothers, Blair "Tump" and Chris, founded SolarWinds NorthernLights in 1992 specializing in PV and solar hot water systems. Blair, also known as Tump, handles the east coast including Maine, NYS, Pennsylvania, and Maryland. Brother Chris handles Humboldt County on the west coast.

"We started doing solar back in the 1980's," says Tump, "as a sideline to our other work." They both wanted to do more solar, particularly as people continued to ask them about the technology and how they could use it.

SolarWinds NorthernLights also offers education and training programs to promote code compliant, reliable, renewable energy systems. "We develop and implement state of the art courses based on article 690 of the National Electric Code for state and local municipalities, technical colleges, private and corporate groups," said Tump. "Our courses are tailored to the specific audience and often include hands-on training." In fact, Tump uses a solar trailer (a converted horse trailer) to teach PV courses. "When they say 'solar doesn't work in Maine,' I can show them otherwise," he laughs.

In fact, in the 90's, the State of Maine asked him to develop code compliant PV training. "It was during the early formative stages of NABCEP. I was able to work with Mark Fitzgerald and Wendy Parker on the early tests," said Tump. Today, Tump sits on NABCEP's Entry Level Certificate Program Technical Committee.

Both Tump and Chris's clients include both residential and commercial and the

Stars. "We do more solar hot water systems in California," says Tump. "I do a little bit of small wind," he says, "but the technology has yet to meet my expectations."

Tump became NABCEP certified in 2004.

Tump spends a lot of time educating potential clients about solar. "They've already seen a system installed and are curious about the technology. It's my job to help them understand the technology so they can have realistic expectations about its performance." Still, Tump says that the out-of-pocket, up front expenses are still the toughest hurdle to clear when talking about solar.

In his spare time, Tump works with the Chewonki Foundation, a traditional boys camp that offers environmental education programs, traveling natural history programs, wilderness trips and workshops for adults, families, and groups, and a residential academic program for high-school juniors. Chewonki has both solar hot water and a 4.5 kW PV system on its Center for Environmental Education that provides 10% of its annual electricity.

Tump has also been working on the Chewonki Renewable Hydrogen Project, a collaborative effort between the Chewonki Foundation and the Hydrogen Energy Center of Portland, Maine. The project, designed to explore the use of hydrogen as a storage medium for all renewable energy sources, also serves a functional purpose as a backup energy system for Chewonki's Center for Environmental Education.

"We installed a battery backup for the electrolyzer," said Tump. During power outages three 1kW fuel cells use this hydrogen to produce electricity for the Center for Environmental Education for up to four days. "The battery backup is also used for the Center's non-releasable outreach wildlife."

Recently, Chewonki held its 6th Sustainable Energy Conference. "About 90 people attended, and listened to presentations on small wind, solar, hydrogen and climate change," said Tump.

While Tump is enormously busy in the northeast ("most of my business is word of mouth"), he's waiting on the final details for a large job in El Salvador, Central America.

"We'll be training installers and help establish a company to sell renewable energy products," said Tump. "There's a large eco-tourism industry down there, and we want to take advantage of the site's natural resources

"Both Chris and I will be based out of the DC area and go back and forth for a couple of years," said Tump. "How's your Spanish," I ask him. "Tolerable," he quips.

You can reach Tump at tump@hughes.net

Manufacturer's Musings

Bob Schmitt, SMA-America

SMA-America offers NABCEP-approved courses for certificants to satisfy continuing education requirements.

"SMA provides training across the U.S. and at its Grass Valley location," says Bob Schmitt, SMA-America's Technical Manager. "In fact, we're excited about featuring communications hardware and software training in our curriculum due to the recent developments of Performance Based Incentives (PBIs) in many states."

States with PBI's, like California, require an independent performance monitoring reporting service (PMRS). "Since PBI states base their rebate on performance, they want to make sure that data is impartially collected and interpreted," says Schmitt. "The PMRS's act as an intermediary between customer and funder (i.e., the state) so the state can depend on the performance on which to base the PBI rebate," he says.

Schmitt contends that the PV system monitoring benefits the end user and offers great service value to the NABCEP installer. "Since installers can access these devices remotely, she/he can monitor customer systems efficiently. It also ensures maximum system production, avoiding unnecessary down time. This is a more proactive strategy for the installer," says Schmitt.

SMA is offering a two-day course in residential system design and communications technical training on July 25 and 26 at its Grass Valley, CA location. The training qualifies attendees for 9 hours of NABCEP continuing education credits. Space is limited; it's first come, first served. You can contact Sue Barnette at sbarnette@sma-america.com for registration details.

For more information, contact Bill via email at bschmitt@sma-america.com, or by phone at 530.273.4895, x 130.

Featured Board/Technical Committee Member

John Wiles, PV Technical Committee

The 2008 National Electrical Code is Coming!

In January 2008, many states in the US will adopt the 2008 National Electrical Code (NEC). Other states will adopt this Code at varying times throughout 2008, and there will be few states that will not adopt this Code for many years. For example, California is still on the 2002 NEC and New York is using the 1999 NEC.

Although the final wording for the new Code is not yet available, a few of the 40+

items submitted by the PV industry Forum that will be changed for 2008 can be addressed at this time.

The requirements for dc grounding electrode conductors in Section 250.166 has been revised for better understanding. Most residential systems will need no larger than a 6 AWG conductor connection to the ground rod.

Although most new inverters will have a neutral conductor for measuring unbalanced voltages, some may not require it. The size of this instrumentation conductor will be no smaller than the ac equipment-grounding conductor (690.62) and, where this connection is not required, the absence will be permitted in Section 200.3.

Nearly all PV systems, not just those on dwellings, will require a Section 690.5 ground-fault protection system. This requirement was added to deal with potentially long-term circulating ground-fault currents that can be in excess of the single-string, short-circuit current.

"PV/Photovoltaic Wire" will be specified in the Code for the first time as an allowable wiring method for ungrounded PV arrays. It is already appearing on some modules, and bulk supplies are being produced.

Questions? Contact John directly at 505-646-6105, or by e mail at jwiles@nmsu.edu

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Employment Opportunities

Looking for work or qualified employees in the solar thermal or PV industry?

Whether potential employee or employer, this is where NABCEP will help you match your need.

Go to the new NABCEP Jobs weblink and set up your login and password. We'll be tracking this, and keep you posted.

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