



# THE FOUNDATION

Educating a Workforce to Build an Industry

## DECEMBER 2010 EDITION

### FPSIE ANNOUNCES

AN OPPORTUNITY FOR ITS SPONSORS AND POTENTIAL SPONSORS TO SHOWCASE THEIR PRODUCTS AND/OR SERVICES IN A HISTORIC PROJECT

**PROJECT OBJECTIVES FOR THE DEBBIE MEYER SWIM SCHOOL POOLS MAKEOVER**



FPSIE Education Center  
Sacramento, CA

The overall objective is to determine the amount of energy savings that can be achieved by applying current knowledge and the latest technologies while maintaining superior water clarity and sanitation. Sacramento Municipal Utility District (SMUD) and Foundation for Pool and Spa Industry Education (FPSIE ) have previously partnered on similar projects in residential settings and with those documented successes, the next logical step for the partnership is to move on to the commercial/semi-commercial venue. The Sacramento County Environmental Health Department has agreed to participate in this historic study and will be considered a partner in the venture. There is to be a recording of the “before” makeover equipment, energy consumption, hours of operation and general conditions. During the makeover there will be extensive photography, including video, of the work in progress. An independent third party firm will be recording and documenting the project so that results cannot be sullied. There is to be a recording of the “after” makeover showing the changes and the documented effects those changes have made on energy consumption, water clarity and sanitation. All products that can demonstrate contribution towards the project’s objectives will be considered. Manufacturers, distributors and others that have an interest in participating in this project where their product(s) and/or services can be showcased in this high profile venture, are invited to submit proposals and/or inquiries to FPSIE, Inc., 598 Display Way, Sacramento, CA 95833, telephone (916) 922-8895, via e-mail to: [info@fpsie.org](mailto:info@fpsie.org).

### FPSIE NEWS

#### TOP INDUSTRY EDUCATION PROVIDERS JOIN FORCES



Author: Rebecca Robledo - Pool & Spa News

A three-way alliance has formed between the Foundation for Pool & Spa Industry Education, the National Swimming Pool Foundation, and Hanley Wood, LLC, owner of Pool & Spa News and the International Pool | Spa | Patio Expo.

“Because of the vast expertise all three organizations have with various segments of the pool and spa market, as well as long-standing relationships, we felt this was a no-

brainer,” said Dick Coleman, group publisher with Hanley Wood, headquartered in Washington, D.C.

The group is starting with three online courses, the first of which is scheduled to launch in spring 2011. The program is leading with its “Aquatic Energy Auditor” class, a FPSIE-developed session that helps pool professionals and others learn how to inspect a pool or spa, and suggest improvements to the system to ensure peak energy efficiency. It will be followed by a class on basic electricity and one covering hydraulics and circulation.

“The world is moving toward more energy conservation, and this strategic partnership helps us bring our industry in that direction,” said Tom Lachocki, CEO of Colorado Springs-based NSPF. “Ultimately, the objective is to have effective energy auditors out in the field who can help facilities become more efficient and possibly even earn credits.

Though all parties are contributing to the program’s content, marketing and delivery, each will bring its expertise to a different area. FPSIE plans to provide the bulk of the content, whereas NSPF will draw on its experience in packaging and providing Web courses. Hanley Wood will supply graphics generation and specialize in marketing through its print and online publications.

(Continued on page 2)

**TOP INDUSTRY EDUCATION**  
(Continued from page 2)

After the initial three courses are produced, the partners will decide whether and how to move forward. "I think this is a dynamic partnership because all three organizations have the ability to look in a very open manner at the future," said Michael Orr, executive director of FPSIE, based in Sacramento, Calif. "There's a synergy here. This agreement has far-ranging potential for developing new courses that have not been done previously."

The Foundation for Pool & Spa Industry Education is a nonprofit educational center geared toward providing vocational training for the pool and spa industry. The National Swimming Pool Foundation is a nonprofit organization that aims to promote and improve aquatics through education and research. Hanley Wood is a leading media company targeting the housing and construction industries.

All courses will be available in 2011 through Websites of the three organizations. This includes Hanley Wood University ([www.hanleywooduniversity.com](http://www.hanleywooduniversity.com)), a centralized continuing education portal for construction professionals. The courses should qualify for continuing education units.  
- Rebecca



**Michael Orr, FPSIE's Director of Training**

**CAN WE SAVE ENERGY IN THE COMMERCIAL SWIMMING POOL MARKETPLACE?**

The commercial segment of the swimming pool industry has arrived at a point where standard prescriptive regulations for filtration requirements make it difficult, if not impossible, to consider new technology in energy reduction. These new technologies include the use of methods, equipment, and products to reduce electrical energy as required in emerging utility-oriented standards throughout the country.

The question arises, "Do we have the ability to save energy at every swimming pool and keep good water quality in the form of clarity and sanitation?" The answer today seems to be, "The smaller the pool, the greater the impact on energy savings versus the cost of retrofit." FPSIE and SMUD (Sacramento Municipal Utility District) recognize possibilities based on work done on residential and some commercial swimming pool systems in California. In 2008 California adopted a new energy standard that considers many aspects such as filtration, hydraulics, motor type, pump size, and pump type. To supplement these standards, when performing a system up-grade, are new filter media added to the conventional filter media, restriction on the use of cyanuric acid in pool water, and automated sanitation systems that control sanitation, oxidation, and water pH.

The technology of variable speed pumps and three-phase pumps has been deployed for years in the commercial market place and has greatly reduced energy usage at large commercial swimming pools. Commercial swimming pools with less than 30,000 gallons pumped by motors using single-phase electricity are the target of our demonstration project. We have calculated that they have the most to gain.

**Scenario:** A 25,000-gallon commercial swimming pool (typically found at apartment complexes, motels, homeowner associations, sports fitness facilities, etc.) that has a current Title 22 code-compliant commercial-operated system (with four turnovers a day using a standard 1 Hp single-phase - single speed pump from any of the large pump manufacturers) will consume over \$4,000 of electricity a year using SMUD energy rates. On

the other hand, a new technology system that pumps one half that amount of water a day will use less than \$1,000 a year. Of course, the standards will have to shift from prescriptive regulations to a science-based strict compliance standard for turbidity and sanitation in order to allow the new technology and reduced flow rates. In most cases the new equipment will cost about two years of energy savings from high-technology equipment with a 10 to 15-year life cycle.

FPSIE, SMUD, and the Sacramento Environmental Health Department will sponsor a technology demonstration in the Sacramento area. Readers will be kept informed of the progress of this undertaking. Those with new technologies that can improve water quality and sanitation are urged to telephone or e-mail FPSIE about being a part of this effort. To our industry and those we serve, this will be a big WIN - WIN - WIN!  
-Michael

**CLASS & SEMINAR SCHEDULE \***

**2010**

- Dec. 6.....Basic Electricity**
- Dec. 9.....Basic Hydraulics & System Components**
- Dec. 14.....Aquatic Energy Auditor**
- Dec. 20-21.....NSPF (CPO) - Certified Pool Operator**

**2011**

- Jan. 4-5.....NSPF-CPO-Certified Pool Operator**
- Jan. 28..... FPSIE- AEA-Aquatic Energy Auditor**
- Jan. 29..... FPSIE- AEA-Aquatic Energy Auditor**
- Feb. 3.....Hayward Training**
- Feb.17-18.....NSPF-CPO-Certified Pool Operator**
- Feb. 23.....FPSIE- AEA-Aquatic Energy Auditor**
- Mar. 14.....Basic Water Chemistry**
- Mar. 15.....Basic Hydraulics & System Components**
- Mar. 16.....Basic Electricity**
- Mar. 21.....Safety, Customer Service & Construction**
- Mar. 22.....Heater & Controllers Maintenance**
- Apr. 16-17.....NSPF-CPO-Certified Pool Operator**
- Apr. 26..... FPSIE- AEA-Aquatic Energy Auditor**
- May 21.....FPSIE- AEA-Aquatic Energy Auditor**

Register today for classroom training at [Hhttp://www.fpsie.org/trade-2/course-registration](http://www.fpsie.org/trade-2/course-registration)

Or register for one of FPSIE's Online Webucation Courses

\* visit our website for more dates

**Mark Your Calendars!**  
**Aquatic Energy Auditor**  
**For**  
**Commercial Pool Operators**



**Course Presentation:**

**1-Day Course**  
**Pick from**

**Friday - January 28**  
**Or**  
**Saturday - January 29**

**8:00 AM/5:00 PM**

**Register early!**



Sacramento Municipal Utility District's Paula Robertson, right front, and Brooks Hillian, right rear, presenting SMUD's 2010 contribution to FPSIE's Don Aston, left, Carole Dittmer and Michael Orr. SMUD's contribution supports scholarships to and the ongoing operations at FPSIE for the Aquatic Energy Auditor Course which promotes energy efficiency for pools and spas in SMUD's service area.

**FPSIE PRESS RELEASE (REPRINT)**

Following its successful collaboration with the Sacramento Municipal Utility District (SMUD) to produce a brochure to serve as a guide to swimming pool/spa energy savings, FPSIE collaborated with SMUD to produce a DVD that not only demonstrates the procedures involved but dramatically illustrates the savings achieved.

**Sacramento, CA/August 4, 2010** – Encouraged by dramatic increases in Northern California sales as reported by energy-efficient equipment manufacturers during 2009 and early 2010, FPSIE and SMUD decided to enhance the Aquatic Energy Auditor (AEA) course with the addition of a “how-to” DVD. SMUD commissioned FPSIE to select a SMUD ratepayer who owns a pool/spa equipped with older equipment to provide a “real-life” makeover to be illustrated on the DVD. Because the budget for this project was limited, FPSIE chose to do the makeover “in-house.” Michael Orr (a.k.a. Professor FPSIE) cast himself as the Pool/Spa Technician performing the makeover. Many pool/spa professionals were asked to provide input for suggested sites for the makeover. After careful consideration, FPSIE chose the home of Dennis and Janet Jones for the makeover. The willingness of the Joneses to accept the equipment brand of the FPSIE sponsor willing to donate the required equipment was an important consideration because FPSIE had not secured a donor before choosing the site.

Once the site was selected and the equipment needs were identified, FPSIE called its sponsors about potential partnering for this project. Pentair Water Pool and Spa, Inc. ([www.pentairpool.com](http://www.pentairpool.com)), a major FPSIE sponsor, was first to offer to donate the energy-efficient equipment featured in the makeover. The energy audit conducted prior to beginning the makeover revealed the existing equipment electricity consumption per hour of operation to be 3,200 watts. The pool holds 18,000 gallons, and the 1½-horsepower filter pump was timed to run six (6) hours a day. After a discussion with the Joneses revealed that the pool had minimal usage, the six (6) hour a day filter pump run-time was concluded to be “over-kill.” The eighty-five (85) gallon per minute (gpm) flow rate of the 1½-horse power pump pushed 30,600 gallons of water through the filter in the six (6) hour run time—equivalent to 1.7 turnovers of the entire content of the 18,000 gallon pool. Professor FPSIE recommended, and the Joneses accepted, one turnover of the pool water through the filter daily. The new variable speed pump was calibrated to pump fifty (50) gpm and was timed to run six (6) hours a day.

The “after- makeover” energy audit showed the equipment electricity consumption to be slightly less than 500 watts an hour, representing a savings of 2,700 watts of electricity during each of the six (6) hours of daily operation. Assuming the cost for electricity to be \$.20 per 1,000 watts, that savings amounts to \$5.40 a day. The approximate retail cost for the average Sacramento area pool/spa owner for a

comparable makeover would be about \$2,000. At that rate, the savings would pay for the makeover in 371 days. This is a goal SMUD and FPSIE have set out to accomplish for every SMUD pool/spa owner in its territory. FPSIE wants to partner with all California electric utility companies to accomplish this result throughout California—then the rest of the nation. Potential partners are invited to call (916-922-8895) or go to FPSIE's Web site. Technicians interested in becoming certified Aquatic Energy Auditors can go to the FPSIE Web site ([www.fpsie.org](http://www.fpsie.org)) for more information. Promotional copies of the DVD are available from Don Aston at (916) 779-4044.

FPSIE, Inc. is a 501 (c) (3) not-for-profit corporation dedicated to raising the level of knowledge and professionalism of the pool/spa industry workforce and its future leaders through the FPSIE Education Center for career development.

**Foundation for  
Pool & Spa  
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California:

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San Luis Obispo, CA 1/11/2011

Pleasanton, CA 2/01/2011

Sacramento, CA 2/03/2011

Van Nuys, CA 2/08/2011

Orange County, CA 2/10/2011

Ontario, CA 2/15/2011

Thousand Oaks, CA 2/17/2011

San Diego, CA 2/22/2011

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# Scholarship Opportunities for FPSIE Courses

Manufacturers and utility companies have purchased FPSIE Education Gift Certificates (see sample below) that pool/spa professionals can use towards tuition for FPSIE courses. Students needing tuition assistance are encouraged to apply for one of the certificates by telephoning local manufacturer sales representatives and/or local utility company representatives to the pool/spa industry. Additionally, trade association members should check with association management for participation in this Education Gift Certificate Program. IPSSA, for example, promotes energy-efficiency education and is offering \$100 certificates to the first 100 IPSSA members who register for FPSIE's Online *Aquatic Energy Auditor Course*. If you need point-of-contact information, call *FPSIE* at (916) 922-8895. Please have the name of the manufacturer that you support most and/or the name of your local utility company available when calling.

Sample 111111

**Sacramento Municipal Utility District**  
**2010 Education Promotion**



**\$150**

**Education Gift Certificate**

Courtesy: Sacramento Municipal Utility District

This Education Gift Certificate will be honored by FPSIE, Inc. towards tuition for the Aquatic Energy Auditor course taught by FPSIE, either at the FPSIE Education Center or on-line. This certificate has no cash value.

**Presented to:**

Individual/Company Name	<u>Aquatic Energy Auditor</u> Course	Date
Address	By: Authorized FPSIE or SMUD Representative	
City, State, Zip	<b>Expires: December 31, 2010</b>	

# FPSIE SPONSORS

A round of applause and sincere thanks goes out to all of our wonderful supporters who have made the FPSIE Education Center possible. It is their dedication that has made FPSIE a success. In their honor, with their continued support we continue providing education for our industry. We are now in the third phase of development. If you wish to be recognized on this list with our other sponsors/donors, please contact Michael Orr to discuss countless opportunities. We need sponsors to donate time, materials or funds on our countless educational projects.

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A.O. SMITH

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