



# AICHE Orange County

NEWSLETTER OF THE ORANGE COUNTY SECTION, AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

No. 129

<http://www.aiche-orangecounty.org>

January 2005

## Los Angeles and Orange County Joint Meeting JANUARY DINNER MEETING

### DREDGING IN LAKE TAHOE AND ESCAPING TO TELL THE TALE

**Dominic Meo III, P.E.**

**Tuesday, January 25, 2005**  
**5:30 PM**

Dominic Meo III from the Orange County Section will provide the presentation at our January meeting. Come hear how a fifteen-day dredging project turned into a five-week nightmare, with lots of escalating costs and frayed nerves. Get the inside story on how a simple project blew up due to a complex mix of overbearing regulatory compliance, incompetent subcontractors, equipment breakdowns, small-town politics and old-fashioned greed.

You will see color photos of the dredging and water-treatment equipment in action, plus accounts of the project published the local Tahoe Daily Tribune. Cost data and project schedules will be provided to meeting attendees. Despite all of the problems encountered, the project won an environmental-compliance award from the Tahoe Regional Planning Agency, and the lessons learned are being applied now to a larger dredging project taking place in Oxnard, California.

Mr. Meo is a Principal Consultant for Meo & Associates in Huntington Beach, California. He has been working in this capacity for six years on a variety of projects, ranging from obtaining simple air permits to managing large-scale projects. He has a Bachelors and Masters degree in chemical engineering and is a licensed Professional

Engineer in California, Arizona and Massachusetts.

#### Meeting Schedule:

|           |                      |
|-----------|----------------------|
| 5:30 p.m. | Social Hour          |
| 6:30 p.m. | Dinner               |
| 7:20 p.m. | Break                |
| 7:30 p.m. | After-Dinner Program |

#### Place: Khoury's Restaurant, Long Beach

110 Marina Dr., Long Beach, CA 90803.

**Directions:** From the 405 freeway, exit south onto Seal Beach Boulevard and proceed south 2.9 miles to Pacific Coast Highway. Turn right and proceed west for 0.5 miles on Pacific Coast Highway to Marina Drive. Bear left onto Marina Drive and proceed 0.5 miles to the restaurant.

**Reservations:** Please make a reservation at (949) 261-2622 by voice by Tuesday, **January 18, 2005**. Or, you may email your reservation to [west@research.ge.com](mailto:west@research.ge.com). When making reservations, please include your name and indicate whether you are planning to come for the dinner or for the presentation only. Vegetarian meals will not be available unless ordered one day in advance. No-shows for the dinner will be charged (AICHE is charged), so please cancel your dinner reservation by noon the day before the meeting if you are unable to attend.

**Cost:** Members and guests: \$25 with a reservation, \$30 at the door; Retired/Unemployed members: \$5 with a reservation, \$10 at the door; Students: FREE with reservation, \$5 at the door.

**Starting with the month of January  
2005, every third meeting a member  
attends is FREE with reservation**



**\*\* ENGINEERING WEEK \*\***  
**February 20-26**  
Visit [www.eweek.org](http://www.eweek.org) for more info

## **Engineers Week Global Outreach In 2005 Focuses On Engineers Without Borders**

**Donald Lehr**  
**The Nolan/Lehr Group**

Knowing that engineers improve quality of life, Engineers Without Borders – USA (EWB-USA) was established in 2000 to mobilize volunteer engineers and engineering students to design and implement projects that bring sustainable, long-term benefits to impoverished communities around the globe. From a year-round water supply for a village in parched Burkina-Faso to bringing electricity and computer education to remote reaches of Nepal, the non-profit corporation has quietly grown to become one of the most significant goodwill efforts of the American engineering community.

Engineers Week 2005 co-chairs ASME (The American Society of Mechanical Engineers) and BP p.l.c., have made Engineers Without Borders a major focus of their activities. Engineers Week, for more than 50 years the profession's most visible public awareness and outreach program, has always highlighted the engineering community's volunteerism. For 2005, the support and expansion of the work of Engineers Without Borders underscores the new global thrust of EWeek and the organization's intention to take its message worldwide.

The Engineers Week partnership with EWB-USA calls on engineers from every discipline to help design and construct water, wastewater, sanitation, energy, and shelter systems in developing communities. These projects are initiated by and completed with contributions from the host community to ensure that locals can own and operate the systems without external assistance, long after the engineers have left. EWeek's co-chairs are encouraging engineering societies to organize multidisciplinary teams to adopt an ongoing EWB-USA project or help develop a new project of their own. In turn, the societies will recruit engineering students and young engineers to implement the projects.

Typical of the challenges EWB-USA volunteers face is the small village of Santisuk in the northern reaches of Thailand. Three decades ago, small bands of the once nomadic Lahu Shele tribe settled there after escaping civil unrest in nearby Myanmar, formerly known as Burma. Having survived for generations as hunters and gatherers, they soon hunted out all local game and then turned to slash and burn agriculture, eventually destroying much of the area's topsoil, along with the ability to grow crops. Further, improper resources management resulted in unstable water supplies for crops and drinking water tainted with bacteria, which caused widespread stomach ailments.

Engineering students from the University of New Hampshire in Durham, led by EWB-USA volunteer Dick Herring, a chemical engineer based in Colorado, adopted the project for Engineers Without Borders in 2003. First, they tackled the drinking water dilemma by installing filters and setting aside a leach field. Wastewater was separated from drinking water, bacteria was eliminated, and the stomach illness subsided. During the next monsoon season, however, rains overloaded the spring box that supplied drinking water, clogging it with debris and silt. Earlier this year, the students returned to build a new spring box, installing drainage berms, reinforced concrete walls, and a corrugated roof to protect from debris.

This major achievement is only the beginning of the UNH team's commitment. In January, the students are returning to develop an irrigation canal that can withstand the pressures of heavy rains, which normally overwhelm the current system and cause massive waste. They will also institute a waste collection system to help maintain groundwater purity. Further plans include a health clinic, school dormitory, and hydrological study.



At the core of their work is a wide-ranging communication and education project that fully involves the villagers to let them take control over their resource management. Crop rotation, field terracing, use of vegetative buffers, better fertilization practices and development of a seed bank are all part of the plan to ensure long-lasting productivity for the village.

The students' efforts have not gone unnoticed. When they return in January, they will be shadowed by a film crew making a documentary on the village's success.

"Engineers Without Borders is acutely aware of the vast needs of so many of the world's people," says Cathy Leslie, EWB's executive director. "We're equally aware of the engineering community's ability and willingness to effect meaningful change in answer to those needs."

Besides its humanitarian benefits, Harry Armen, 2005 president of ASME, also sees Engineers Without Borders as an ideal goodwill ambassador for the profession. "Our program for Engineers Week 2005 not only opens opportunities for engineers and engineering students to answer the call to service," he notes, "we're also raising awareness about the contributions of engineers in the global community."

Finally, students in EWB projects experience engineering at its most personal and rewarding level. "Students use and refine their developing technical skills to tackle problems and achieve immediate results," says Victoria Rockwell, 2005 Engineers Week chair, ASME member and a mechanical engineer. "They see first hand the powerful impact they can make, in very different cultures than their own, and develop a sense of belonging to the community of engineers that contributes to human progress. These are lessons that can only be learned by doing."

For more information on the Engineers Week partnership with Engineers Without Borders – USA, visit [www.eweek.org](http://www.eweek.org).

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Engineers Week, founded in 1951 by NSPE, is dedicated to raising public awareness of engineers' positive contributions to the quality of life. It promotes recognition among parents, teachers and students of the importance of a technical education and a high level of math, science, and technology literacy, and motivates youth to pursue engineering careers in order to provide a diverse and vigorous engineering workforce. Co-chairs for 2005 are ASME International (The American Society of Mechanical Engineers) and BP p.l.c.

## Legal Corner

### **"KEEPUS" Committee Status (Newsletter FY05-02)**

**Bob Katin**

We were scheduled to make a presentation at the Sunrise Hearing before the Joint Committee on Boards Commissions and Consumer Protection (JCBCCP) formerly known as the Joint Legislative Sunset Review Committee (JLSRC). JCBCCP will evaluate if we should be made a 1<sup>st</sup> class engineer. The hearing was scheduled for 9 DEC 2004. If we survive the Sunrise Hearing, in 2005 a bill will be introduced to change the law to make us 1<sup>st</sup> class engineers.

However, with Senator Burton having reached term limits, he stepped down as the President Pro Tem of the Senate. Senator Don Perata, the incoming leader said he wanted to reorganize the Committees. One aspect was to eliminate the Senate Business and Professions Committee (B&P) and divide the responsibility to other committees. This would be devastating. We have worked with Senator Liz Figueroa as Chair of B&P and Chair of JCBCCP for years, and we feel we have her support. To start from scratch was overwhelming.

A meeting of Senate Democrats was scheduled on 9 DEC 2004, the date of our Sunrise Hearing with



JCBCCP, so our hearing was moved to 6 JAN 05. I just received a press release dated 2 DEC 04 that Senate Perata announced that Senator Figueroa will serve as Chair of the Senate Business, Professions and Economic Development Committee in addition to B&P. This is GREAT news!

We expect the ISR Study Report will be presented by ISR, BPELS will present their recommendations, CELSOC and PECG will voice their opposition, and I will present the importance of ChEs regarding public safety and welfare. Key support I need includes:

1. I desperately need commitment from people that they can sign a letter on company letterhead. On 6 JAN 05, I only need to show e-mail commitment; later in 2005, I will need a letter. It is important to show that the marketplace (industry) is technically sophisticated and can chose what engineering discipline they need, instead of big brother State government requiring industry to hire CE firms to learn on industry's expense or the CE firm subcontracts a ChE and adds to industry's invoice without adding value. To date I am aware of 24 companies.
2. I need commitment from industrial associations. I currently have none.
3. I need people from major companies willing to testify to say that their company wants the legal right to hire any consultant that they choose, rather than being told they have to hire a civil engineering firm. I currently have none.
4. I need ChEs to send an e-mail saying they will write a letter when required; I have 69.
5. Five Deans from Schools of Engineering have written stating that all engineering disciplines are unique and not just a sub-set of civil engineering, including Cal Poly Pomona, UC Davis, UC Riverside, UCLA, and UC Santa Barbara.
6. Please see the attached list of names. If you offered to write a letter and planned to write it on company letterhead, but I list you as personal letters, let me know. If you thought I knew you supported the effort, but never sent an e-mail to me saying you would write a letter on personal or company letterhead, please be more explicit and send me an e-mail.

**IN REPLY PLEASE ADDRESS:**

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**STUDENT CORNER**

Please contact the newsletter editor if you would like to publish any AIChE student chapter meeting summary or contribute any articles related to science/engineering.

**Newsletter Contributors Wanted**

The newsletter editor would like to hear from you if you have one or more brief articles to contribute, especially a review or brief discussion of a good website, technical book, etc.

**Professional Engineering  
Employment Update**

Job Seeking Members can receive a list of web sites of area companies that sometimes hire ChEs. Contact the Senior Member Everett Knell at [EWKnell@aol.com](mailto:EWKnell@aol.com) to receive this list by e-mail. Put "OCAICHE Company List" in the subject line of your email request.

- ① If you have an employment opportunity in Southern California for a chemical engineer, the newsletter will advertise it for free.



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## 2005 Orange County AIChE Officers

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**DATED MATERIAL**

**ADDRESS SERVICE REQUESTED**

