



AICHE Orange County

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

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October 2003

OC AICHE OCTOBER DINNER MEETING

HiPOx Advanced Oxidation Process

Dr. Reid Bowman

Tuesday, October 28, 2003
5:30 PM

Dr. Bowman will present an update on Applied Process Technology, Inc. HiPOx Advanced Oxidation Process. He will present case histories of several pump & treat projects where the major contaminants of concern are MTBE & TBA. He will also present case histories for sites contaminated with VOC's and 1,4-Dioxane. In addition, Dr. Bowman will discuss the in-situ application of HiPOx at gasoline contaminated sites. His presentation will also announce Applied's work in the area of perchlorate removal using a Membrane Biofilm Reactor process.

Dr. Bowman, who is currently the Director of Product Development & Chief Technology Officer of Applied Process Technology Inc, has over 20 years of experience as a scientist and chemist in developing innovative products for major corporations. He holds 10 patents in Process Development Chemistry and has the prestigious honor of being the youngest person ever in Dow Chemical history to attain the elite status of Associate Scientist before the age of forty.

His work experience prior to co-founding Applied Process Technology centered upon the design and operation of pilot plants intended to support development of new chemical-based products. While at Dow, Dr. Bowman developed a commercial manufacturing process for a new class of highly effective, low toxicity herbicides, which accounted for \$120 million in product sales per year.

Dr. Bowman, as one of the Applied Process Technology's co-founders, is responsible for new product development, laboratory experimentation, and conducting ongoing academic research and extensive scientific studies intended to improve upon the Company's existing technologies.

Dr. Bowman has a BS degree in Chemistry from California State University at Long Beach, an MS degree in Chemistry at Princeton University, a PhD in Chemistry at the University of California at Santa Barbara, and a Post- Doctorate degree from the University of California at Berkeley.

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: Wyndham Garden Hotel, Costa Mesa

Directions: From Interstate 405, go north on Bristol Ave., right on Anton, left on Avenue of the Arts. The Wyndham is on the right at 3350 Avenue of the Arts, Costa Mesa.

Reservations: Please make a reservation at (949) 261-2622 by voice by Friday, October 24, 2003. Or, you may email your reservation to west@research.ge.com. Please specify your preference for either the main menu or the vegetarian menu when making your reservation.

Cost: Members, \$20 with a reservation, \$25 at the door; Non-Members, \$25 with reservation, \$30 at the door; Students/Unemployed/Retired, \$5 with reservation, and \$10 at the door

Starting with the month of June, every third meeting a member attends is FREE with reservation

Southern California AICHE Meetings

The section for the LA area normally meets every 3rd Tuesday at the Quiet Cannon in Montebello. For reservations call (800) 274-3847. Visit their web site for the latest information

www.geocities.com/aiche_sc

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Society of Women Engineers Orange County Section - Upcoming Events

- **NAWBO Remarkable Women Luncheon, 10/24/03**
Westin South Coast Plaza Hotel in Costa Mesa, CA
11:00 am - 2:00 pm
COST: The cost is \$70 per person or \$650 for a table of 10.
Contact: Jen at jenwong@water.ca.gov
- **October Dinner Meeting and Family Issue Event**
"Retirement Planning," By Linda Dorfmont, EA, CFA, CSA
Wed 10/29/03 at 7 p.m.
Panda Panda Chinese, 12309 Seal Beach Blvd.
Seal Beach, CA 90740
(562) 594-5510
\$15 Members, \$20 Non-Members, \$5 Students
RSVP: Vicki at vjgaston@earthlink.net by Friday, October 24th
A FREE Entertainment Book will be given away at this meeting!

KEEPUS By Bob Katin

The following are excerpts from a report by Bob Katin, PE who is chairing AIChE's KeepUS lobby group:

The evaluation of the State Engineers' Act was posted on the web in DEC 2002. The 19-page Executive Summary is worth reading, it is very favorable to ChEs (see NorCal AIChE website <http://www.aiche-norcal.org/> and from the home page select the left-hand tab "ADVOCACY" and then ISR Report).

The Engineering Board (BPELS) formed a Task Force to advise BPELS how to respond to ISR's report. I attended the 1st Task Force meeting held on 21 AUG 03 in Sacramento. CELSOC has been our primary opponent. They said their usual, eliminate all Title Act Engineers. However, I was surprised to hear them say since all engineering disciplines are primarily based on physics, there may be no need to recognize any other engineering discipline since they are a sub-set of CE. However, since the scientific basis of ChE is chemistry, not physics, ChE should be upgraded to Practice Act

protection. (Before you get excited and scream we won the war, this is a hollow victory. If we do not get removal of arbitrary restrictions and get authorized to "overlap" into the exclusive practice of CE, we would not be able to perform ChE activities because virtually everything we do is defined to be CE.)

I also testified on your behalf at the 2nd Task Force meeting conducted on 24 SEP 03 in Glendale. I introduced three "white papers" to address questions raised at the 1st Task Force meeting. The topics included BPELS claims that they cannot discipline a ChE for poor performance; BPELS claims that there are a lot of potentially incompetent engineers out there that were "grandfathered" when the PE license was 1st introduced without having to take an exam; all engineers are just a sub-set of civil engineers (our reply, no, the definition of civil engineering is just too broad). Copies of the three "white papers" are posted at www.nocal-aiche.org and from there select the left-hand tab "ADVOCACY" and the link to the individual paper of interest. My assessment after the 2nd Task Force meeting is they are seriously looking to make ChEs a Practice Act.

The schedule of activities looks like:

- 3rd Task Force meeting in Sacramento to develop recommendations to BPELS—13 NOV 03
- Task Force presents recommendations to BPELS regarding response to ISR Report—16 DEC 03
- BPELS submits their report to the State Legislature
- JLSRC holds hearings to determine disposition of BPELS
- Senate B&P Committee submits "placeholder" bill (w/o words) to modify the Engineers' Act—JAN 04
- The bill is developed to modify the State Engineers' Act—MAR 04
- The bill works its way through the State Legislature—MAR through OCT 04.

During hearings in 2004, I will need volunteers to write letters on company letterhead and make phone calls to key Legislators holding seats on committees where hearings will be held. Until then, I would like to continue adding names of ChEs in CA to the KeepUs distribution list so that when I testify, I can claim a large number of constituents. If you know of other ChEs in CA, regardless if they are members of AIChE or PE's, please let me know



their name and e-mail address.

CLCPE is our ally and has been saying there is unison in the engineering ranks. We would like to represent more engineering societies. If you know of a leader of an engineering organization that I may invite, or if you want to form a small engineering organization and join CLCPE, please contact me. Recently the Industrial Engineering representative to CLCPE became ill and was unable to attend quarterly meetings. If you know an industrial engineer in CA that might be interested in getting involved in fixing the broken State Engineers' Act, please provide me a name, phone number, and e-mail address.

Legal Corner

California Governor Signs Act To Restore Prior New Source Review Standards

Peter Hsiao and Siegmund Shyu, Morrison & Foerster LLP

Legal Corner reports on recent news, and is not intended to be legal advice. The reader should consult an attorney about the specific facts before acting upon this information.

On September 22, 2003, embattled California Governor Gray Davis, facing a historic recall election on October 6, signed into law the New Source Restoration Act of 2003 (S.B. 288). The legislation, sponsored by leading Democrats, codified into state law the federal Clean Air Act New Source Review program as it existed prior to the recent EPA revisions (see September 2003 newsletter) and would prohibit California air districts from relaxing their New Source Review programs. The law aims to control emissions from power plants, refineries, and other air pollution sources that many analysts feel would be exacerbated by the new federal rules. According the Bureau of National Affairs, Republicans opposed the measure, saying it would put California at a competitive disadvantage compared to other states. However, Republicans were outnumbered by a substantial margin in the California Assembly and Senate, and were unable to defeat the bill. It is unclear whether the law would be valid without EPA approval. In the meantime, California and other

states have filed challenges to the recent EPA revisions to the New Source Review program.

Federal Judge Blocks U.S. Government Plan To Dismantle Ships Carrying PCBs

On October 2, 2003, a federal district court judge in the District of Columbia Circuit issued a temporary restraining order ("TRO") against the U.S. Maritime Administration to prohibit it from transporting at least thirteen obsolete cargo and military-support ships to Great Britain for dismantling. (Basel Action Network v. Maritime Administration, No. 03-2000). The ships, presently anchored along the James River near Newport News, Virginia, contain tons of fuel, PCBs, and some asbestos. PCBs, the abbreviation for polychlorinated biphenyls, were widely used as a fire insulator, but have been banned for manufacture and have been restricted in use since 1979 because of their toxicity. The James River ships had been placed out-of-service, and had been sitting in dock for years as the federal government explored options on how to dispose of them. Former President Bill Clinton outlawed the sale of obsolete vessels for scrap overseas, but the Bush Administration obtained a waiver from the EPA to export the James River ships to Britain for dismantling. The Sierra Club and the Basel Action Network brought suit to block the transfer. In issuing the TRO, the federal judge stated that the Maritime Administration had likely not conformed fully to the federal environmental laws. Therefore, she blocked the transfer until further hearing on the merits of the environmental groups' lawsuit.

Something Completely Different

If you are in the minority political party in the Senate and are unhappy with a Presidential nominee, who only needs majority approval to be installed, what do you? Apparently, you just fail to show up for the committee hearing. According to Reuters, Democrats in the Senate have been unhappy with President Bush's choice to be the new EPA Administrator, Utah Governor Mike Leavitt. They believe he has not adequately explained his viewpoints on key issues, including asbestos and ozone standards. However, Leavitt's nomination has to receive the approval of the Senate Environment and Public Works Committee first before going to the full Senate. Under committee rules, the committee cannot conduct business unless at least two members of the minority party or parties are in attendance. When the nomination came up, only one member of



the minority, Jim Jeffords (Independent, Vermont) showed up. Said Jeffords, "The Bush administration is weakening the Clean Air Act, and is not cleaning up Superfund sites. We have a right to know why." Committee Chair James Inhofe (Republican, Oklahoma) accused Democrats of playing politics, stating that "This is about the presidential election." Looks like business as usual in Washington.

Do We Have Your E-Mail Address?

Newsletter delivery by e-mail has proven to be more reliable and expedient than the postal version. If you would like to receive the e-mail version, especially if you only want the e-mail version, please contact the editor at Kris_lp@edwards.com. Postage presently consumes a significant portion of our budget and volunteer time.

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 to receive this list by e-mail.

Job Opportunities

Company Description: Winefield & Associates, Inc. (W&A) is an environmental, health and safety (EH&S) consulting firm based in Long Beach, California. We have been offering diverse compliance and engineering services to the regulated community since 1997.

Job Qualifications: Successful candidate must be a Certified Industrial Hygienist and possess a Bachelor's or Master's degree in Occupational Health & Safety/Industrial Hygiene, Engineering or related field plus a minimum of ten years professional experience. Thorough working knowledge of OSHA and NIOSH regulations and requirements as well as experience in applying them to programs, projects, and

processes. Must be able to develop written Safety procedures for a myriad of industry types. Candidate must possess exceptional verbal and written communication skills.

Description of Responsibilities/Essential Duties: Essential duties include completing safety programs and industrial hygiene projects for industrial clients. Successful candidate will be responsible for building industrial hygiene division of firm. Candidate will conduct industrial hygiene monitoring and air sampling through the use of IH monitoring equipment And techniques. Other needs include asbestos/lead field inspections and abatement oversight as well as microbial sampling and field investigations.

Candidate must be able to develop new clients and manage the safety and industrial hygiene needs of our existing environmental clients. Must be able mentor junior and mid level safety consultants.

If interested, please email your resume and cover letter to Jennifer Roache at: jen@winefieldassoc.com.

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

2003 Orange County AIChE Officers

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