



AICHE Orange County

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

No. 103

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

September, 2002

SEPTEMBER DINNER MEETING

Winning the War on Dirty Air,

The Inside Story

Joe Seiwert,

Advanced Environmental Systems

Tuesday, September 24, 2002

5:30 to 8:30 PM

This presentation will review several unique applications of emissions control systems based on catalytic and thermal oxidation technologies in a "case history" format:

- Regenerative thermal oxidation and staged combustion technologies for control of pharmaceutical process emissions
- Selective catalytic reduction systems for control of NO_x emissions from industrial boilers, and dioxin control from hazardous waste incinerators
- Staged catalytic oxidation/reduction system for emissions control from vitrification process for nuclear wastes disposal

Joe Seiwert is Vice President, Business Development for Advanced Environmental Systems. Joe has a BS in Chemical Engineering from the University of Cincinnati, and a MBA from Xavier University. Joe has 25 years experience in the development and commercialization of air pollution control systems, and is the author of several papers dealing with regenerative thermal oxidation technology. Prior to this, Joe held various technical and management positions in the organic chemicals industry.

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, September 20. Or, you may email your reservation to janice.west@ps.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, \$15 with reservation, and \$20 at the door.

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Future Orange County AICHE Meetings

Regarding Dominic's plans for the rest of the year, the November meeting is going to be Spouse's Night, which we have not done in a long time. Roy Peters is presenting a talk called the "Chemical Engineering and Looking Good." Roy will be talking about the chemical engineering needed to make cosmetics and shampoos.



Last Month at OC AIChE

Mark Krouse, Vice President of Human Resources for Fluor Corporation, was the speaker at the well-attended August dinner meeting. Mark addressed how Fluor creates the kind of work environment where employees feel eager to work harder and smarter. The result is a company with less turnover, more sales and more profit. Fluor has shown that a company can achieve this through a formal mentoring program (not by the immediate supervisor), recognition of good performance, and web-enabled employee-driven surveys of all employees. Mark explained how this done in the real work environment. Among the many questions he candidly answered, he addressed the qualities he looks for when hiring engineers from among the thousands of applicants he reviews

Southern California AIChE Meetings

The next Southern California Section dinner meeting is Tuesday, September 17th at the Quiet Cannon Restaurant in Montebello. The September topic is "Validation Engineering in Pharmaceutical & Biotech". On Tuesday, October 15, Cal Poly Pomona will host a joint meeting of local sections of the AIChE and American Society of Metals. See the website at http://www.geocities.com/aiche_sc.

Legal Corner

by Peter Hsiao and Siegmund Shyu,
Morrison & Foerster, LLP

Oil Companies Settle With South Lake Tahoe Water Utility District For \$28 Million Over MTBE Contamination

In a settlement announced on August 5, oil companies Shell Oil, Equilon Enterprises, and Texaco agreed to pay \$28 million to the South Tahoe Public Utility District to settle the utility's lawsuit over whether the companies were responsible for their methyl tertiary butyl ether (MTBE) gasoline contaminating the utility's water wells. (*South Tahoe Public Utility District v. Atlantic Richfield Co.*, California Superior Court, San Francisco County, No. 999128). Other oil companies named in the case, ExxonMobil, Atlantic Richfield, Unocal, and Chevron, in addition to several gasoline stations, had previously settled with the utility. With the announcement, the settlements have totaled \$69 million. The utility alleged that the companies were responsible for the MTBE pollution that closed one-third of the its drinking water wells and that they knew that gasoline with MTBE was a defective product. The MTBE gasoline had reached the water wells through leaking underground storage tanks. Jurors had agreed with the utility in April, returning a verdict finding the oil companies knew MTBE was defective but still allowed MTBE gasoline to enter the market.

South Coast Air District To Appeal Decision Striking Down Architectural Paint Amendments

The South Coast Air Quality Management District (SCAQMD) announced on July 30 that it will file a petition for review with the state Supreme Court in an attempt to overturn a June 24 Court of Appeal ruling that struck down amendments to Rule 1113. (*National Paint & Coatings Ass'n Inc. v. SCAQMD*, California Court of Appeal, Fourth District, No. G029462). The amendments to Rule 1113 attempted to curb VOC emissions by toughening standards for architectural paints and coatings. The paint manufacturers had brought suit against the SCAQMD, alleging that the amendments gave exemptions to special interests, set standards that were infeasible, and were defective procedurally. The trial court found for the SCAQMD, but the Court of Appeal reversed, holding that SCAQMD failed to follow the required procedures in adopting the amendments. If the Supreme Court grants review, that would automatically vacate the Court of Appeal ruling and reinstate the amendments pending the Supreme Court's resolution of the issues.

Something Completely Different

A new study has found that some plants present a ragged appearance to ward off bugs and other predators. According to the California Academy of Sciences, a study presented at the Ecological Society of America found that plants that presented an appearance that naturally looked as though their leaves had been nibbled prevented real insects from eating their leaves. These plants included the *Reinhardtia gracilis*, a Mexican palm tree. In controlled studies, insects avoided the Mexican palm tree and its ragged leaves, but ate the leaves of a related species with full leaves and an unrelated species. However, when scientists offered the insects bits of the studied species in the lab, they actually preferred eating the Mexican palm tree, suggesting that the shape of the leaves created the repellent, and not the leaves' taste.

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.

Clarification on West Nile Spraying

Gerhard Knapp, of GFK Consulting, wrote in to clarify that pesticides used against mosquitoes are at most suspected carcinogens. Gerhard is correct, so let me be more precise -- NIOSH lists malathion and piperonyl butoxide not as carcinogens, but as tumorigens, mutagens, and reproductive effectors in humans. Both are "very toxic to aquatic organisms." With malathion, cumulative effects are possible, and we are advised to avoid exposure of children. Piperonyl butoxide has the warning "Do NOT let this chemical enter the environment." and "In the food chain important to humans, bioaccumulation takes place, specifically in seafood." Sumithrin (cyclopropanecarboxylic acid), a pesticide that has been investigated less thoroughly, is

listed only as a mutagen in humans. See <http://www.cdc.gov/niosh/>.

AIChE National News

→The Ammonia Conference will be held September 16-19 at the Loews Coronado Bay Resort, in Coronado, CA (San Diego). For more information, visit www.aiche.org/ammonia.

→Update on the proposed changes in the Constitution of AIChE

The board of directors of AIChE have proposed following 5 changes to the AIChE constitution in order to keep pace with the changing nature of Chemical Engineering, to grow its membership and to stay nimble as an organization. In November 2002, we will all vote on these changes. A public forum is scheduled for Monday, November 4 at 7 a.m. at AIChE's 2002 Annual meeting in Indianapolis to discuss these changes.

The changes are listed below:

1. Changes in membership status:
The most extensive change is a revision of the grades of membership. Member categories "associate" and "affiliate" will be combined into a new category called "member". Current "member" will become "senior members". There will be no changes to membership categories for student member or fellow.
2. Under the proposed change, the title of "Vice President" will be changed to President elect."
3. This change will move the requirement for the Institute's Executive director to be a member or Fellow from the Constitution to the Bylaws.
4. The proposed change will allow electronic ballots to be used in Institute elections. This will save money, be more efficient and possibly increase voter participation.
5. The proposed change will update the description of the teller's duties, to reflect the current practice for counting and verifying votes. The change will formally authorize tellers to verify the votes with electronic tallying technologies commonly used by tallying services.

For more information about the proposed changes please visit, <http://www.aiche.org/constitution>.

KEEPUS by Bob Katin

For years, we ChE's have been claiming that the State Engineers' Act arbitrarily restricts us from conducting typical chemical engineering because these activities are by law the exclusive expertise of civil engineers (CE's). We were successful in getting Senate Bill 191 (SB 191) passed. It tasked an independent consultant,

Cal State Sacramento's Institute for Social Research (ISR), to evaluate the Engineers' Act. ISR was generally favorable to ChE's in their Forum summary. A copy of their summary is posted on NorCal AIChE's website at <http://www.aiche-norcal.org/> and from there click on the "ADVOCACY"

Subsequent to the Forum, ISR was to submit a FINAL report to the Department of Consumer Affairs (DCA) by JUL 2002. DCA is the boss of the Engineering Board (BPELS). ISR did not meet their goal, and claim they will submit it by 30 AUG 02. DCA is tasked with submitting the report to the legislature by 1 SEP 2002. We hope this report will justify a bill to modify the Engineers' Act.

We anticipate the Legislature will assign the Report to the Joint Legislative Sunset Review Committee (JLSRC). That gives JLSRC from SEP 02 to JAN 03 to read and assimilate the report prior to committee hearings in 2003. This may well be our last chance to change the Engineers' Act. The Legislature is tired of hearing our complaints. To get the bill approved will require lobbying the key Legislators on the Senate B&P Committee, Assembly Consumer Affairs Committee and members of the JLSRC. We need to generate \$20,000 to pay the CLCPE Lobbyist to voice our interest if we expect a bill to have any probability of passing. If the bill does not get modified to meet our needs, we will have to file a lawsuit to give ChE's the legal ability to conduct chemical engineering.

So, what can you do to support our cause? I see several things, mainly give of your time or money. 1. Make a contribution to KeepUs. 2. When the time is right (just prior to a committee vote at a hearing), call or fax Legislative Committee members and let them know your opinion. 3. The Legislature does not understand what engineering is all about. Their only indication of the number of ChE's there are is based on BPELS advising them how many ChE's are good enough to qualify as PE's, reinforcing BPELS position that all ChE's need to be supervised by a CE. Improve our credibility, obtain or retain your ChE PE. 4. The Legislature recognizes votes. We only have effect if we have numbers. If you know fellow ChE's please provide me their name and e-mail address so that when we correspond with the Legislature, we can say we represent the largest possible number of ChE's in California. BPELS is coming up for review. The JLSRC will decide if they shall be retained. In the last review, they received a 24-page blast from the JLSRC. A copy is posted on the NorCal website.

For the complete and latest information on this dynamic topic, please check the website: <http://www.aiche-norcal.org/Government/keepus>

Safety Note

The Society of Petroleum Engineers reports three incidences caused by cell phones at gas stations:

- While being filled, a car caught fire from fumes emitted from the tank when a cell phone in the trunk rang.
- A man got his face burned while talking on his phone as he refueled his car.
- A cell phone burned a man's trousers when the phone in his pocket rang as he was filling his car.

The SPE says the keypad or ringer apparently can produce a spark. These incidents could have been avoided. Keep your cell phone switched off at gas stations.

Postscript: On July 22 AOL announced the following in their news service, under the headline **Cell Phone Myths**:

"Despite a flurry of such reports on the Internet, there are no documented cases of a cell phone ever sparking a fire from fumes at a gas station. Gas companies, fearful of law suits, quickly prohibited the use of cell phones at their pumps. However, it is extremely unlikely that most modern cell phones would cause an ignitable spark." You decide.

Evening Classes Starting Soon

The web site www.aiche-orangecounty.org has a page of University Classes for engineers who want to prepare for the PE exam or specialty certification. Nearby universities who offer such classes are encouraged to contact the webmaster, Cheryl Zheng (See page 1).

Chemical Engineering in the News

According to Chemical Engineering Progress, earlier this summer BP announced that it would phase out the sale of MTBE in California gasoline, despite a decision by Governor Gray Davis to delay a planned MTBE ban until 2004. The 10-11% MTBE will be replaced by 5-6% ethanol from biomass. On June 8, ChevronTexaco has started shipping gasoline with no MTBE to Lake Tahoe (See the Legal Corner, page 2).

Anyone with further news on this change is encouraged to send information to the newsletter editor.

Local Member Service

As a service to local members and their potential clients, we have added a consultants page to the OC

AICHE web site www.aiche-orangecounty.org. Look there to see who can give advice worth paying for. To add information to the web page, members may contact Cheryl Zheng, webmaster.

Professional Engineering Employment Update

Job Seeking Members can now receive a list of web sites of area companies that sometimes hire chemical engineers. Special thanks to Ron Ambrosini, Alexandre Dokoutchaev, Edgar Lara, and Dung Phan, who volunteered to help with this list. Contact the Newsletter Editor to receive this list by e-mail as an Excel file.

⇒ Job Opportunities

⇒ [Bioproducts Inc.](#) is an international leader in the production and distribution of animal nutrition products and petfood palatants. Bioproducts has patented a new Chemical Manufacturing Process, and needs an intern/temporary worker to assist with start-up testing of Pilot Scale test equipment at our Corcoran, CA manufacturing plant. This paid position will last through December 2002, and very likely into 2003. It will require 40 hours a week.

If you are a Chemical/Mechanical Engineer or Engineering student with abilities to operate plant equipment, collect process data, and provide experimental support, contact Mark Nelson at 1-800-722-7242 *2104.

⇒ [U. S. Continental](#) is a specialty chemical manufacturer and packager, currently exploring a project involving a retail product that we package. The current product is petroleum based, and we are looking to convert to a biodegradable product. We are seeking a consultant to advise us on environmental benefits as well as government agency compliance.

Please contact Daniel E. Franz, U. S. Continental, at 909 808-8888. Corona, California; Riverside County

⇒ For the most recent job opportunities, you can check the website <http://www.aiche-orangecounty.org>

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