



AICHE Orange County

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

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November 2003

OC AICHE NOVEMBER DINNER MEETING

When the Warning Signs Go Up, Do You Dare to Go Swimming?

Dr. Stanley Grant

Tuesday, November 25, 2003
5:30 PM

Whenever the concentration of fecal pollution in coastal bathing waters reaches levels that might pose a significant risk to human health, warning signs are posted on public beaches in California. An analysis of historical shoreline monitoring data from Huntington State Beach, southern California, reveals that the protocols used to decide whether or not a sign should be posted are prone to error. Errors in public notification originate from the variable character of pollutant concentrations in the ocean, the relatively infrequent sampling schedule adopted by most monitoring programs, and the intrinsic error associated with binary advisories in which the public is either warned or not. In this paper we demonstrate that public mis-notification of coastal water quality can be reduced by utilizing probabilistic approaches for now-casting coastal water quality, and adopting analog, instead of binary, warning systems.

Prof. Stanley Grant is a Professor of Environmental Engineering, and the Chair of the Department of Chemical Engineering and Materials Science at UC Irvine. He also serves as director of the Clean Beach Center. Dr. Grant studies the physicochemical factors affecting the transmission of microbial

pathogens through water. His research focuses on two systems: the transmission of human viruses in groundwater and the impact of urban runoff on the microbial water quality of the ocean near coastal urban environments. He also is interested in the application of complexity theory to environmental systems.

Dr. Grant received his M.S. and Ph.D. from California Institute of Technology in Environmental Engineering and Science (1992), and B.S. *with distinction* from Stanford University in Geology (1985).

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, November 21, 2003. Or, you may email your reservation to west@research.ge.com.*

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



Society of Women Engineers (SWE) Orange County Section - Upcoming Events

Networking Lunch

Sat, 11/15/03, 12 p.m.
Mimi's Café, (562) 596-0831
6679 E. Pacific Coast Hwy, Long Beach, CA
COST: Chip in for whatever you ordered
RSVP: Yilei at mjia@alpine-la.com by 11/14/03

IIE Meeting (Online), "Adobe Acrobat 6.0 for the Engineering Professional"

Wed, 11/19/03, 11:30 a.m. -- 1:30 p.m.
Dial-in numbers will be provided after you RSVP
RSVP: Faye Sadeghi (fsadeghi@cox.net)

KEEPUS By Bob Katin

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

Many CA ChEs may be wondering about the impact of the recall election on our ability to fix the broken State Engineers' Act. Our lobbyist (through CLCPE) does not see a major impact. Our strategy has been to influence all levels of government and the Governor is just one of those levels. Reliance on any single level of government is not a formula for success. Our issues are not of major partisan concern. The merits of our argument will substantially influence the outcome, and we have made the facts of the merits available to everyone. The ISR report is just one example of all the ways we have done this. A new administration will bring some new people into the process and they will need to be informed of the issue, but the facts will be of interest to any administration.

The major issue that will take everyone's attention in the State Legislature is the state budget. All other issues will not receive much visibility. This is nothing new for us ChEs and therefore our strategies will need no major changes. I expect we will continue to be effective. If there are any questions or comments let me know.

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 to the next CLCPE meeting, 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.

NorCal AIChE is hosting the National AIChE annual meeting in San Francisco on 16-21 NOV 03. They have coordinated a Fuel Cells Symposium Sunday afternoon followed by a reception. In addition, they have arranged a crab fest dinner on a cruise of the Bay Wednesday night, 19 NOV. Details are available at www.aiche-norcal.org/meetings.html. I will be making a presentation of the "California Issue" at the National AIChE Government Relations Committee meeting on Tuesday, 18 NOV and again at the Professional Development Committee meeting on Wednesday, 19 NOV. If you are attending the annual meeting in San Francisco, I look forward to seeing you.

Legal Corner

States and Cities File Promised Lawsuit Against EPA's Routine Maintenance, Repair and Replacement Rule Under Clean Air Act's New Source Review

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

As expected, several states and cities filed a lawsuit on October 27 against EPA challenging its routine maintenance, repair, and replacement ("RMRR") rule promulgated in August under the Clean Air Act's New Source Review permitting program (see September 2003 newsletter for RMRR article) (*State of New York v. U.S. EPA*, United States Court of Appeals for the District of Columbia Circuit, Case Number pending). The



petitioners include New York State, Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, Rhode Island, Vermont, Wisconsin, the District of Columbia, New York City, San Francisco, and several cities and towns in Connecticut. Pursuant to federal statutes, the challenge to the agency rule is brought directly at the Court of Appeals. According to the Associated Press, the states and cities will argue that the new rule weakens protections for the environment and public health, and that such drastic changes could only be made by Congress. Commented Massachusetts Attorney General Tom Reilly, "We are not going to sit by quietly and allow the energy interests in this country to receive special treatment while so many of our children and elderly are needlessly suffering from respiratory problems that are, in essence, brought on by bad environmental policy." The EPA did not comment, although an industry group stated, "no litigation from the Northeast attorneys general can produce anything but confusion."

Senate Confirms Utah Governor Mike Leavitt As EPA Administrator

On October 28, the Senate confirmed Utah Governor Mike Leavitt as EPA Administrator by a vote of 88-8. Democrats had previously attempted to delay the vote ([see](#) October 2003 newsletter under "Something Completely Different"), but according to the Associated Press when it became clear that Leavitt had mustered sufficient support among the senators, they dropped most of their opposition. Leavitt promised to promote "a higher and more meaningful level of cooperation and the application of new technologies" in environmental matters. Stated Senator Orrin Hatch (Republican-Utah), "The record is clear that Michael Leavitt is a champion of the environment." Many Democrats were also complimentary, as Senator Tom Carper (Democrat-Delaware) opined, "He's very good at bringing people together." Other Democrats remained steadfast in their opposition. Senator Frank Lautenberg (Democrat-New Jersey) stated they needed more time to examine Leavitt's record in Utah to see whether he "shares the same disregard" for the environment as President Bush. Senator Hillary Clinton (Democrat-New York) dropped her opposition to Leavitt after the White House promised it would take additional steps to protect residents of New York City from harmful substances caused by the World Trade Center collapse, stating "I'm pleased we've made this progress with the White House...and I hope their

cooperation is an indication of a new attitude."

Something Completely Different

Leave it to chemical engineers to teach an old dog new tricks. As reported in the Los Angeles Times, the Navy is experimenting with a biodiesel refinery, designed and operated by its chemical engineers, in the Port Hueneme naval base in Ventura County. The refinery is expected to turn used cooking grease into cleaner-burning biodiesel fuel. The refinery is designed to make up to one million gallons of biodiesel a year. If the project is successful, the Navy will expand it to other bases. Said Kurt Buehler, the naval chemical engineer in charge of the project, "Instead of taking used cooking oils to the dump, you convert it to biodiesel, and that is cost-effective."

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.

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_Ip@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. Put "OCAICHE Company List" in the subject line of your email request.



Job Opportunities

The RETEC Group, Inc.

An environmental consulting, engineering and construction management services company

1. Environmental Engineer 1

The desired candidate will be required to assist with engineering and feasibility studies; design and implementation of environmental projects and soil and groundwater remediation systems; compile and analyze data; and manage the preparation of reports. Job responsibilities also include contractor supervision/construction management, procurement, hands-on fieldwork, cost estimating, and project management support. Candidates must have a bachelor's degree in environmental, civil, chemical, or mechanical engineering, as well as a year of experience in the environmental industry. Advanced Excel and word processing skills required. This position also requires excellent written and oral communication skills, time management skills, the flexibility to work on a multitude of diverse projects, a positive attitude, and a willingness to learn new skills.

2.Environmental Engineer 3

The desired candidate will assist with engineering and feasibility studies, compiling and analyzing data including data collection and Excel data layout and presentation, preparation of reports, contractor supervision, FS level cost estimating, project management support, and task management. Candidates must have bachelor degree in environmental, civil, chemical, or mechanical engineering, 4-6 years of experience, an understanding of regulations and compliance orders, an understanding of hydro-geologic principles including hands-on fieldwork experience with groundwater sample collection and chain of custody procedures, an understanding of analytic chemistry and chem. lab functions, as well as, excellent written and oral communication, time management skills, the flexibility to work on a multitude of diverse projects, a positive attitude and a willingness to learn.

3. Field Operations Engineering Supervisor

The desired candidate will assist with trouble-shooting and maintenance of remediation systems, field tech supervision (3 to 4 staff) including, planning and scheduling work assignments, time management, performance management, as well as, procurement of replacement parts and equipment, hands-on fieldwork, preparation of scope change orders including cost estimating, project management support (as it applies to OM&M), and task management. Candidates must have a bachelor degree in environmental, civil, chemical, or mechanical

engineering, 4-6 years of experience, a demonstrated health and safety culture including safety compliance on active industrial sites, excellent written and oral communication, the flexibility to work on a multitude of diverse projects, a valid driver's license with an accident-free driving record, a positive attitude, and a willingness to learn.

Please contact:

Bob Chambers

The RETEC Group, Inc.

5000 East Spring Street, Suite 250

Long Beach, CA 90815

Email: bchambers@retec.com

Phone: 562-420-2933 X17

- 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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