

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 21 No. 2

## MINI-SYMPOSIUM

## MTBE in Gasoline: Can California Tolerate Its Use?

Sponsored by The Santa Clara Valley ACS Section and  
The Northern California MTBE & Fuel Oxygenates Committee

### Speaker Biographies:

(1) **Stephen Hall**, Executive Director Association of California Water Agencies

Since January 1993, Stephen Hall has served as executive director of the Association of California Water Agencies (ACWA), a state-wide organization of 440 public water agencies that collectively are responsible for over 90% of the water delivered to California's cities and farms.

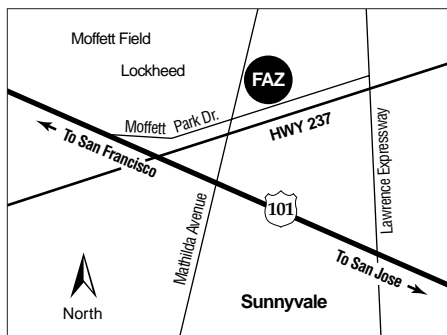
With more than 22 years' of experience in state water resources issues, Hall has played a key role in efforts to reach consensus on water policy among urban, agricultural, and environmental interests. He was appointed by Governor Wilson and Interior Secretary Bruce Babbitt to represent ACWA on the Bay-Delta Advisory Council, a stakeholder panel charged with providing input into a long-term solution to problems in the Sacramento-San Joaquin River Delta.

Hall, 46, holds posts on the University of California Water Resources Center Advisory Council, the UC Davis Land, Air and Water Advisory Board and the U.S. Committee on Irrigation and Drainage. He is listed in both "Who's Who Among Leading Americans" and "Who's Who In Leading American Executives."

Prior to joining ACWA, Hall served as executive director of the California Farm Water Coalition (1989 to 1992) and the Land Preservation Association (1985 to 1989). He was manager of the Tulare Lake Drainage District from 1976 to 1985.

Hall holds a bachelor's degree in marketing and economics.

*continued on next page*



### February Dinner Meeting

**Date:** Thursday, February 18

**Place:** FAZ Restaurant  
1108 N. Mathilda Avenue  
Sunnyvale

#### Schedule:

6 PM Reception

7 PM Dinner (\$25.00)

8 PM Mini-Symposium

"MTBE in Gasoline: Can California Tolerate Its Use?"

#### Reservations:

**Shirley Radding** (408) 246-2564  
e-mail: sradding@att.net

**Sally Peters** (650) 854-4614

Smoked pork chops with apple sauce, Spit roasted one-half chicken, or Vegetarian ravioli

Dinner reservations are required  
by **Monday, February 15**

Limited space available.  
Please make your reservations early.

## Chairman's Message

Even though February is a short month, it is full of activities. In other sections of this newsletter you can read more details about the MTBE conference. This topic has been under discussion in many different circles of our society. We found it to be incumbent upon us to have a public discussion, based on science, where as many different points of views can be presented. Please make your dinner reservations early, since the seating will be limited.

More details and information are available now about California State Capital Day. Thanks to our webmasters, we have a link on our web page with the latest updates about this subject. ([www.scvac.org](http://www.scvac.org)) Please give it a visit and give us your feedback.

The Chemistry Olympiad Committee Chairman, Dr. Roy Rocklin, will be receiving this month's copies of the Local Section Exam. A letter has been

*continued on next page*

**(2) Duane B. Bordvick**, Vice President, Environmental & External Affairs Tosco Corporation

Duane B. Bordvick is Vice President, Environmental & External Affairs for Tosco Corporation. He is responsible for policy, support, and oversight of environmental affairs, health and safety programs, and public affairs for all Tosco Corporation facilities and divisions.

Mr. Bordvick joined Tosco in 1981 as Manager of Air Quality Engineering for Tosco Corporation. He moved to Tosco's Avon Refinery in 1984 as Manager of Environmental Affairs and in 1988 was named Operations Manager for the Refinery. In 1989 Mr. Bordvick was named Vice President of Environmental Affairs for Tosco Refining Company and was elected to his current position for Tosco Corporation in January 1997.

Mr. Bordvick, a native of Seattle, Washington, holds a bachelor's degree in Mechanical Engineering from the University of Washington and is a Registered Professional Engineer in the state of California. He is also on the Board of Directors of the Bay Area League of Industrial Associations and the

Golden West Section of the Air and Waste Management Association.

Mr. Bordvick resides in Alamo, California.

**(3) Chris Bowman**, Environmental Reporter, *The Sacramento Bee*

Chris Bowman has covered environmental and natural resource issues for several years as a reporter for *The Sacramento Bee*.

His investigative stories on California's air and water pollution have inspired reforms in state environmental policy and enforcement. He also pioneered The Bee's coverage of the Intermountain West, roving the basin and range between the Sierra Nevada and the Rocky Mountains.

Most recently, Chris has led the state on coverage of MTBE water pollution, breaking several major stories.

He took leave of The Bee last summer to do stories and train journalists in the southern African nation of Zimbabwe, as the inaugural Senator John Heinz Fellow in International Environmental Reporting. Chris also is the first U.S. journalist to be appointed Environmental Nieman Fellow at Harvard, where in 1994-95 he devoted a year of study in the environment.

He has won national journalism awards, beginning with his exposes on transportation safety in the mid-1980s for *The Harvard Courant*. Chris began his reporting career as a courthouse reporter for *The Press-Enterprise* in Riverside, California. His protests there over closure of pre-trial hearings in death penalty cases resulted in two U.S. Supreme Court cases upholding press freedom.

Chris holds a master's degree from Columbia University's Graduate School of Journalism and an undergraduate degree in history from the University of California, Davis. He lives in Sacramento with his wife, Linda Ackley, and their two children.



sent to all honors and A.P. Chemistry teachers in our section asking them to register their top students and give these young men and women the chance to represent our country in an international competition. Our section always has a very strong representation in this contest. If you have a chemistry student in high school, please ask them if their teachers have mentioned the ACS Chemistry Olympiad Competition to them. If the teacher has not addressed this subject, please ask your student to remind their teacher or do so yourself. If the teacher has not received the proper registration papers, please contact us so that we can be sure that they get them. It is our responsibility as chemists to be sure that the next generation receives all the encouragement and assistance they need. The future of our profession and nation depend on them.

Finally, I hope that by now you have had the chance to sign up with a committee addressing your topic of interest or specialty. If you have not, it is never too late to do so. The topical groups established to date include: Pharm/Biotech, Analytical, Retired Chemists, Young Chemists, Women Chemists, High School Chemistry Teachers, and the Industrial Relations Group. Other groups are being established as members express an interest. Remember, any organization is as strong as the contribution of its members. One can sign up at a dinner or by calling a member of the Executive Committee.

A handwritten signature in black ink that reads "Daniel W. Falshaw". The signature is written in a cursive, flowing style.

# The Northern California MTBE and Fuel Oxygenates Committee

Environmental regulations requiring the addition of oxygenates to gasoline has led to the use of MTBE and other compounds such as TAME, ETBE, etc., in fuel. The use of these oxygenates has created the associated concerns from the release of these compounds to groundwater, surface water, and the environment. The loss of drinking water supply wells to MTBE contamination and the occurrence of MTBE in shallow groundwater across the United States are increasingly being reported. These detections have heightened public concern regarding the use of these compounds in gasoline.

As blending compounds oxygenates comprise a significant proportion of gasoline. Compounds such as MTBE are highly soluble and very mobile in water, and are not readily biodegradable. The persistence of these compounds in the environment and their increasing detection are cause for concern. The chemical characteristics of compounds such as MTBE make it a more significant threat to groundwater resources than other petroleum compounds in gasoline (benzene toluene, etc.) Environmental professionals contending with the problems of oxygenate contamination need to understand the properties of the various oxygenate compounds and their fate and transport in the environment. Thus, the need for a forum to discuss MTBE and fuel oxygenates was identified.

The Northern California MTBE & Fuel Oxygenates Committee was established on April 2, 1998, in San Jose, CA to provide an open forum to discuss and exchange technical information on MTBE and other fuel oxygenates. The goal of the committee is to provide information from all viewpoints for the benefit of all attendees. Meetings are open to the public and are attended by environmental consultants, engineers, chemists, academia, researchers, regulatory agencies, US EPA, major oil companies, environmental product vendors, and university students. The committee is sponsored by the Santa Clara Valley Section of the American Chemical Society, San Jose State University's Institute for Research in Environmental Engineering and Science, and the Santa Clara Valley Water District. The Northern California MTBE & Fuel Oxygenates Committee is modeled after the Southern California MTBE ad hoc Committee which is affiliated with the Orange County Chapter of the American Chemical Society.

Northern California MTBE & Fuel Oxygenates Committee meetings are held the first Thursday of every month, from 7:30 to 9:30 P.M. at San Jose State University. Each meeting consists of brief introductions by meeting attendees, a roundtable discussion for updates, new information, and announcements from attendees, presentations by two guest speakers, and a follow up discussion period. Guest speaker presenta-

tions have discussed the occurrence, fate and transport of fuel oxygenates in the environment; remediation and water treatment technologies; analytical techniques for detecting fuel oxygenates; regulatory aspects at the local, state, and federal level; industry perspectives, and legislative developments.

Speakers for 1998 have included presentations by individuals from a variety of backgrounds and representing a broad cross section of the environmental field. The first meeting of the committee featured a keynote presentation by Mr. Murray D. Einarson, CHG, of the University of Waterloo. Mr. Einarson's talk was entitled "Ten Popular Myths Regarding MTBE Releases and Their Resulting Plumes." Other presentations in 1998 have been made by the US EPA Region 9: Mr. Matt Hagemann, "Review of Current Research on MTBE in Water;" the California EPA: Dr. Joseph Brown, "Development of a Public Health Goal for MTBE in California Drinking Water;" the California Department of Health Services: Dr. Steven Book, "Upcoming Regulations for MTBE in California Drinking Water;" water districts: Ms. Maria Tikkanen, PhD, East Bay Municipal Utilities District, "MTBE Occurrence in Drinking Water Reservoirs: EBMUD Case Study" and Mr. James Crowley, P.E., Santa Clara Valley Water District, "MTBE: Assessing the Threat from Release Sites;" Lawrence Livermore National Laboratories: Dr. Anne Happle, "Managing the Risk of MTBE Contamination to Drinking Water Wells from LUFT Releases;" major oil companies: Mr. Mark R. Lafferty, R.G., Chevron Products Company, "Low Level MTBE Impact to Municipal Well near Two Service Stations - A Northern California Case Study;" analytical laboratories: Dr. Ian R. Kaplan, Global Geochemistry Corp., "Problems of Measuring MTBE by Conventional Methods in Fuel Contaminated Waters;" and universities: Ms. Juana Eweis, PhD candidate, University of California - Davis, "Biodegradation of MTBE in a Pilot-Scale Biofilter." A regulator's panel discussion "Regulatory Jeopardy: MTBE & Ether Oxygenates" was also held with representatives of five regulatory agencies discussing how their agencies handle investigation and cleanup of MTBE plumes.

For current meeting agendas and minutes from previous meetings visit the web page of the Santa Clara Valley Section of the American Chemical Society at [www.scvacs.org](http://www.scvacs.org). For further information please contact:

**Donna L. Mena, P.E., Chair**  
Northern California MTBE and  
Fuel Oxygenates Committee  
Phone: 408/265-2607 x2744  
Fax: 408/997-8769  
e-mail: [donnam@scvwd.dst.ca.us](mailto:donnam@scvwd.dst.ca.us)

---

# Plans for California State Capitol Day Underway

---

Representatives of California's local sections met last fall to begin plans for a State Capitol Day on Wednesday, April 28, 1999. The planning session was part of the agenda of the California Coordinating Committee's meeting following the Western Regional Meeting in San Francisco. All ACS members in California will be invited to travel to Sacramento to participate in this event. It will be an opportunity for members of ACS local sections to meet with their state legislators, the governor's office, and state agencies. A letter of invitation is being sent to Governor Gray Davis to address the gathering.

From left to right: Steve Rodemeyer, San Joaquin Valley



Section; Janet Schunk, California Section; Celia Marshak (partly hidden), San Diego Section; George Matsuyama, San Geronio Section; Jan Hayes (kneeling), Sacramento Section; Jamil Talhouk, Santa Clara Valley Section; Don Baker, California Section; and Rita Boggs, Southern California Section.

The Santa Clara Valley Section is planning to provide bus trans-

portation to members for this event. If you would like to participate, and reach the ears of key California State Government officials, contact Jamil Talhouk.

One way to increase our understanding of the governmental process is by attending the ACS Office of Legislative and Government Affairs (OLGA) government relations training workshop at the ACS National Meeting in Anaheim. The workshop is a perfect opportunity to learn more about ACS government relations programs and how you can become involved. A one-half day workshop will be held on Monday, March 22 from 1 to 5 pm and will provide personalized training to people who are interested in becoming a part of this important ACS program.

For more information about OLGA and the National Meeting Training Workshop, contact Debbie Fillinich at 202-872-6229.

---

## 1999 BAESG - IREES FORUM ERS Compliance - Are You Ready for 1999

Monday, April 19, 1999

Xerox Palo Alto Research Center Auditorium, 3333 Coyote Hill Road, Palo Alto

**Program:** 9:00 am - 6:00 pm

Presentations on regulatory updates from experts at the local, state and federal levels.

**Preliminary Speaker List:**

- Reinhard Hanselka, Fire Marshall, City of Palo Alto  
"Local-level Regulatory Status"
- Gary Lucks, Attorney, Radiant International  
"State-level Regulatory Update"
- Pat Ferraro, Silicon Valley Pollution Prevention Center  
"Pollution Prevention Responses to Regulation"
- David Cox, PE, EORM, Inc.  
"EU Producer Responsibility Requirements for Products and Packaging of Materials Being Sold/Exported to the European Union"
- Rob Anderson, CSP, CIP HP Components Group  
"Implementation of the New Respiratory Protection Standards"
- George Carson, Santa Clara County Department of Health  
"CA-ARP/RMP - Federal Risk Management Plan Requirements from the Clean Air Act and the California

*Degree Program at San Jose State University"*

- Nabil Ibrahim, San Jose State University  
"The New Environmental, Health and Safety Degree Program at San Jose State University"

**Costs:** The registration fee of \$150 includes coffee breaks, lunch and Forum Proceedings. Free Parking is available. For three or more from one company, there is a discount of \$25 per person. Pre-registration is required. Deadline is March 5, 1999.

**Co-sponsors:**

Bay Area Environmental Safety Group (BAESG), Institute for Research in Environmental Engineering and Science (IREES), San Jose State University, Santa Clara Manufacturing Group (SCVMG), Silicon Valley Pollution Prevention Center (SCPPC), Business Environmental Network (BEN), REBRAC, Mission College and San Jose State University Foundation

For general information and registration material contact:

**Dr. Art Diaz 408-924-3944 Fax: 408-924-4057**

***Shirley B. Radding***

2994 Cottonwood Court  
Santa Clara, CA 95051-6111

408-246-2564

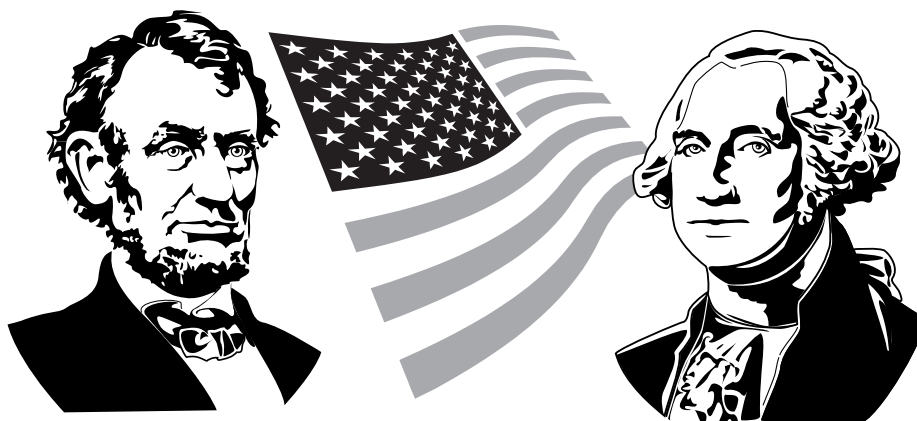
Fax: 408-296-8625  
e-mail: [sradding@att.net](mailto:sradding@att.net)

---

***LITERATURE SEARCHES***

## ***Editor's Corner***

As I start my second year as editor of this newsletter I would like to thank everyone who has contributed material during the last year. Special thanks go out to Herb Silber and the members of the Web committee. The Santa Clara Valley ACS web site has really grown in the last year and now includes lots of very useful information. As those of you who visit the web site regularly know, most of the information in this newsletter can be found at [www.scvacs.org](http://www.scvacs.org) two or three weeks in advance.





SANTA CLARA VALLEY SECTION  
 AMERICAN CHEMICAL SOCIETY  
 P.O. Box 395, Palo Alto, CA 94302

Non-Profit  
 Organization  
 U.S. Postage  
 PAID  
 Permit No. 344  
 Palo Alto, CA

**FEBRUARY 1999 NEWSLETTER TOPICS:**

- Mini-Symposium – MTBE in Gasoline: Can California Tolerate Its Use?
- Chairman’s Message
- February Dinner Meeting
- The Northern California MTBE & Fuel Oxygenates Committee
- Plans for California State Capitol Day Underway
- 1999 BAESG – IREES Forum
- Editor’s Corner

*Time Value!*

**CHEMEMPLOYMENT ABSTRACTS**



<http://www.scvacs.org>

**SANTA CLARA VALLEY SECTION**

**1998 SECTION OFFICERS**

Chair	Jamil Talhouk	925-449-2664
Chair-Elect	Ean Warren	650-329-4554
Secretary	Karl Marhenke	408-479-6263
Treasurer	Hong Gao	650-494-5197
Past-Chair	Herb Silber	408-924-4954

**Councilors**

1998-00	Sally Peters	650-812-4994
1998-00	Linda Brunauer	408-554-6947
1997-99	Carol Mosher	650-322-3120
1997-99	Maureen Scharberg	408-924-4966
1999-01	Bonnie Charpentier	650-354-2344
1999-01	Herb Silber	408-924-4954

**Alternate Councilors**

1998-00	Shirley Radding	408-246-2564
1998-99	Lois Durham	650-723-1610
1997-99	Peter Rusch	650-948-0237
1997-99	Jamil Talhouk	510-449-2664
1999-01	Jonathan Touster	650-723-4340
1999-01	Ean Warren	650-329-4554

**Newsletter Editor**

Steven Colby 650-938-4502

e-mail: [colby@sisweb.com](mailto:colby@sisweb.com)  
 Web Site: [www.sisweb.com](http://www.sisweb.com)

**FUTURE MEETINGS**

<b>Feb 18</b>	SCV Dinner Meeting <i>“Mini-Symposium – MTBE in Gasoline: Can California Tolerate Its Use?”</i>
<b>Mar 18</b>	SCV Dinner Meeting <i>“Use of Gas Plasma in the Polymer Industry”</i> Stephen Kaplan
<b>May 20</b>	Student Affiliates Stanford University

For the latest information, please visit the  
 SCVACS Web Site: <http://www.scvacs.org>

**CHEMEMPLOYMENT ABSTRACTS**

Shirley B. Radding, Director  
 2994 Cottonwood Court, Santa Clara, CA 95051  
 Phone: 408-246-2564 FAX: 408-296-8625  
 e-mail: [sradding@att.net](mailto:sradding@att.net)



Printed on  
 recycled paper.