



MAY SECTION MEETING

THURSDAY, MAY 2, 1991



TOPIC

***"Chemicals and Cancer -
What Are the Facts?"***

SPEAKER

Charles D. Holland
President
Texas Institute for
Advancement of
Chemical Technology
and
Professor Emeritus
Texas A&M University

"Chemicals and Cancer - What Are The Facts?"

Because of our tendency to focus on the most dramatic aspects of our problems, we fail to see the overall picture in many cases, which is particularly true in the case of the association of chemicals and cancer.

Our inability to find cures for all of the dreaded set of diseases called cancer make it an emotional issue. Out of confusion, the general public has become an easy prey for those who claim to know all of the answers. Many have heard only the exaggerated claims and have formed opinions on that basis. There are, however, real risks which must not be confused with the exaggerated claims.

The purpose of this talk is to set the record straight on a number of these issues and provide you with an overall picture of the best estimates to date regarding the association of chemicals and cancer.

Dr. Holland is the President of the Texas Institute for Advancement of Chemical Technology, College Station, Texas and is Professor Emeritus of the Department of Chemical Engineering at Texas A&M University. He has gone from an instructor in 1952 through the ranks to Professor Emeritus of Chemical Engineering in 1987 at Texas A&M University. His career included military duty as Lieutenant in the U.S. Navy, Destroyers. He received his Ph.D. Chemical Engineering, from Texas A&M University.

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PLACE

Houston Engineering & Scientific Society
3121 Buffalo Speedway

NOTE: New Location for HESS

TIME

All Workshops — 4:30 p.m.
Social Hour — 5:30 p.m. Dinner — 6:30 p.m.
Meeting — 7:30 p.m.

PRICE

\$12.00 per person with reservation
by 10:00 a.m., Thursday, May 2nd
\$14.00 without reservation
Checks or exact change, please

RESERVATIONS — PHONE: 493-7436

**DINNER CANNOT BE GUARANTEED
WITHOUT RESERVATIONS**

PRE-MEETING WORKSHOPS AND COMMITTEE MEETINGS

TIME: 4:30 P.M. - All Meetings

Process Optimization Workshop

TOPIC: "Recent Progress in Very Large
Linear Programming Problems"

SPEAKER: Robert Bixby, Rice University,
Dept. of Mathematical Sciences
Call Thomas Wayburn at 963-8944 for details.

Process Safety Issues Committee

TOPIC: "Modeling of Catastrophic Releases"

SPEAKER: Jim Moser, Soft Skills
Call Skip Early at 492-4188 for details.

Environmental Issues Workshop

TOPIC: Informal discussion of freely
available EPA documents on such
issues as SARA, RTK, Pollution
Prevention, RCRA, etc.

SPEAKER: Scott Kuhn, HazMat Product, n.o.s.
Call Scott Kuhn for more information at
728-5242.

FROM THE CHAIR



MOYE WICKS

Those of you who attended the meeting in January remember **Ed Cussler** from the University of Minnesota who spoke to us on the subject of "*Diffusion*". Ed is also a director of AIChE in charge of the education advisory board. He wants to explore establishment of a corps of retired chemical engineers who might be interested in participating in teaching in local universities. I quote from his letter:

"If we could establish such a clearinghouse, we could give students the opportunity of interacting with experienced chemical engineers who have an industrial perspective and not just the dessicated attitudes common to professors."

If you are interested in sharing the benefits of your experience and insight with those on their way into our profession, this seems to be a fine way to do it. Write to **Professor Ken Hall** at Texas A&M University, 301 WERC, College Station, Texas 77843, or call him at (409 - 845-3357) by mid-August if you want your name on the list we send to Professor Cussler in September. Of course, feel free to include in a letter to Ken any implementation ideas you may want to suggest.

The word "creativity" is defined as "the quality to be able to produce original works or ideas." It is,

in the public mind evidently associated with the fine arts more than with science and engineering. Is this perception justified? Are we as a group, in fact, less creative -- or not creative at all? In some circles, engineers are considered stuffy, or even (God help us) boring! In "*Current Contents*," **Eugene Garfield** contends that an essential aspect of creativity is a sense of humor. I must say I have known some engineers who would fail that litmus test. Perhaps we were too well schooled in the process of analysis, and not encouraged to hone and use our abilities in synthesis. In the practice of our profession, some of us have known project engineers and managers who were (quite properly from their viewpoint) more concerned with keeping to cost and time schedules than with pursuing innovative ideas. "It's worked this way before, so why change it?" is always a fair question, but one which tends to maintain status quo solutions. The question is not whether creativity is disruptive, because it almost always is, but rather, "Is it needed? Is it worth it?"

Those of you who heard **Peter Waldheim's** presentation at our March meeting know that the traditional focus on time and cost cannot be the exclusive thrust of engineering efforts. Our corporate and national interests require expansion of our field of vision in engineering and (especially) management. Who are our present and future customers?

(continued on page 3)

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should be made through New York

C.E.O. Chemical Engineering Opportunities

C.E.O. figures for March are similar to those for the previous month, excepting that almost three times as many profiles were mailed to prospective employers:

Placements	6
New Registrants	8
Profiles mailed	135
New Leads	25

There were enough volunteers to maintain two shifts Monday through Thursday 9:00 A.M. - 3:00 P.M. and one shift 9:00-Noon on Friday. Volunteers were supplied as session aids for the National AIChE Meeting April 7-11. We can always use more volunteers; they have the advantage of getting the news of new job openings as soon as they come in. If you are an unemployed or under-employed chemical engineer or chemist, you are urged to visit C.E.O. headquarters to review the file of job openings, to see whether you qualify and are interested in any of them. It is not necessary to become a volunteer to make the visit. There is no charge to either employer or employee for the C.E.O. service.

The C.E.O. office is located at Brown & Root, USA, 10200 Bellaire Blvd., Houston, Texas 77072, (713) 575-4348. If you are planning a visit, please call ahead for directions to the location as well as the procedure for entering the C.E.O. office. Security is still tight; the office door is near the receptionist's desk and is kept locked. Brown & Root is supplied every month with a list of C.E.O. volunteers. No visitor is admitted to C.E.O. unless a volunteer is on duty. All volunteers and visitors are issued passes.

John Dorsey, Marx Isaacs

FROM THE CHAIR

(continued from page 2)

What are their real needs -- today and tomorrow? What technological, societal, environmental, and political changes are brewing that will affect us, and what should we do to prepare for or affect their realization? I believe that we chemical engineers have a central responsibility to our companies and our fellow citizens to participate in the framing and resolution of these questions. We must develop and exercise our creative skills as never before to meet challenges these questions impose.

Engineers, including chemical engineers, can be as creative as any other group, and we certainly have the background to do so. We exhibit creativity in our jobs whenever we, in fact, "produce original works or ideas", as the definition goes. **John S. Morgan** wrote a book entitled "Improving Your Creativity on the Job", American Management Association, 1968, in which he asserts that everyone is creative, and that the quality of creativity can be developed (and he knows how). I recommend this book to those interested.

ENVIRONMENTAL ISSUES UPCOMING MEETINGS & SEMINARS

■ **Communication, Risk Management, and Hazardous Waste: A Community Issue for the 1990's.** University of Houston, School of Communication. Sponsored by the Texas Hazardous Waste Management Society and the UH Institute - Study of Issues Management. May 10, 1991. Cost \$100 per person. Call 713 / 749-3519 for information.

LEGAL CONSIDERATIONS

■ **Are Synthetic Organic Chemicals Manufacturing Industry (SOCMI) emission factors applicable to the Petroleum Refining Industry as well as organic chemical manufacturers? YES.** SOCMI fugitive emission factors can be used for the petroleum refining industry even though they are based upon synthetic organic manufacturing. The refinery need only to correct for differences in concentration since the SOCMI factors are based upon pure substances being released.

■ **How are warehouses affected by Section 313?** A warehouse located within the physical boundary of a covered facility is covered for estimating releases. Warehouse contents are not used in threshold determinations, because thresholds are based upon manufacture, process, or use. Repackaging in a warehouse is considered processing.

For information about any of the above items, call **Scott Kuhn** at 728-5242.

Scott Kuhn

JOIN TODAY!! AIChE's SOUTH TEXAS SECTION

What have you done today as a professional chemical engineer to aid your fellow citizen or yourself? Join us and you'll be working with topflight, dedicated people with an unprecedented opportunity to exchange ideas and information in one of the fastest-growing fields of engineering. **Can you afford not to participate?** Fill out the form below and mail to:

JERRY GRESHAM

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713 / 780-1000

☐ I wish to join the South Texas Section of AIChE. My \$7.00 is enclosed.

Name: _____

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State: _____ Zip: _____

Affiliation: _____

Phone: _____

National Member of AIChE? ☐ Yes ☐ No

National Member Number: _____

☐ If I am not a National Member, I plan to apply within two years.

1991 SCIENCE FAIR WINNERS

The following students were chosen for having prepared the best Science Fair projects related to Chemical Engineering in the 1991 Science Engineering Fair of Houston. For their achievements, these students are being presented engraved certificates and student editions of the *CRC Handbook of Chemistry and Physics* at the May 2nd South Texas Section meeting. The students will display their projects during the social hour preceding the meeting. The winners's parents and science teachers will also attend the meeting.

JUNIOR DIVISION (7th Grade)

Christopher T. Anderson

Project: *"Water Treatment and Purification"*

NINTH-GRADE DIVISION (9th Grade)

Lauren G. Langston

Project: *"To Degrade or Not to Degrade, That Is The Question"*

SENIOR DIVISION (10th Grade)

Andy T. Hu

Project: *"Computer Simulation of an Ethylene Oxide Reactor"*

SENIOR DIVISION (10th Grade)

Dani D. Krasner

Project: *"An 'Explosive' Study of Dust Clean-Up"*

Special thanks to our judges:

Jim Hauck, Environmental Engineer

Dennis Dria, Shell Development Company

Perry Barnes, Golden Storage Services

Robert Hinton, Bechtel

Tom Chastant, M. J. Engineering

Mike McGinness, Student, San Jacinto College

Ernie Althaus, Head Judge

Join us on May 2 to congratulate these young persons on their remarkable achievements and to express gratitude to their parents and teachers for providing the support necessary to complete these outstanding projects.

AICHE ARCHIVES

Anyone having old South Texas Section AIChE records, papers, pictures, etc., please contact our new Archivist **Dennis Butts** at Technica, Inc., Phone 688-8885, so we can start on an AIChE record library. The 50th anniversary of the South Texas Section is coming up next year so there should be a lot of history out there.

DO YOU HAVE INTERESTS SOUTH OF THE BORDER?

*How about combining a little business
with pleasure in Monterrey!*

A joint meeting with the Monterrey section of the Instituto Mexicano de Ingenieros Quimicos is being contemplated for next **September 24-25, 1991**. This would be similar to one of our section's Annual Technical Meetings, but with a Latin flavor. This wouldn't be the first joint meeting. **Chuck Adams** will tell you about success and fun from earlier ventures with our neighbors back in the '70's.

This is a unique chance to network with your counterparts south of the border. In addition to the normal transfer of technology, ideas and experience through the seminars and exposition, there will be a chance to develop new business opportunities, increase trading, promote goodwill, and perhaps even get in some vacation or sightseeing. In this age of expanding global economies, it is certainly a lot easier for us in Texas to develop contacts in Mexico than to look to Eastern Europe. Hopefully, this resumption of a joint meeting with IMIQ may develop into a routine biennial affair.

If this sounds worthwhile to you, please call **Bill Stadig** at 713 / 893-5803 to express your degree and area of interest. If the response is sufficient, we will proceed with plans and get back to you.

Bill Stadig

MAY MEETING

(continued from page 1)

Dr. Holland is listed in *The National Register of Prominent Americans, Two Thousand Men of Achievement, Outstanding American Educators, and American Men of Science*. Other listings included *Who's Who in Science, Who's Who in Technology Today, International Who's Who in Engineering*.

His honors and awards are many and include Recipient of publications awards presented by the South Texas Section of the American Institute of Chemical Engineers for the years 1960, 1965, 1967, 1979, 1980. He is a Fellow, American Institute of Chemists, 1975; and Fellow, American Institute of Chemical Engineers, 1977.

Dr. Holland has over 100 technical papers to his credit. His books include *Fundamentals of Chemical Reaction Engineering; Fundamentals of Multicomponent Distillation (Spanish Edition); Fundamentals of Chemical Reaction Engineering; Fundamentals and Modeling of Separation Processes, Absorption, Distillation, Evaporation and Extractions; Unsteady State Processes with Applications in Multicomponent Distillation; and Multicomponent Distillation*.

STS PUBLIC RELATIONS COMMITTEE

Several new members for the STS Public Relations (PR) Committee are needed for the 1991 year. Many challenges face the Chemical Engineering profession in the 1990's including the environment, process safety, toxic materials management, competitiveness, etc. AIChE must take an active role in shaping public perception of these issues, and our ability to provide solutions.

The PR Committee will be an active one, with the mission of providing a means to meet these challenges. Tasks will include media access, providing a network for making experts available to the media and the public, and publicizing Section and individuals' activities and accomplishments.

Please consider volunteering for this important committee, and contact Committee Chair **Jeff Fleming**, at 476-8346 (work) or 280-0888 (home).

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MAY 3-4, 1991

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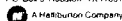
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UNIVERSITY OF TEXAS CONTINUING EDUCATION

May 6-8	<i>Hazard Assessment and Risk Analysis Techniques for Process Industries - Lesso</i>
May 8-10	<i>The People Focus of Construction — Personnel to Client - S. Tucker</i>
May 9-10	<i>HAZOP STUDY METHODOLOGY - Lesso</i>
May 15-17	<i>In Situ Seismic Testing with Surface Waves - Stokoe/Roesset</i>
May 20-24	<i>Municipal Water Demand Forecasting - Maidment</i>
May 20-24	<i>X-Ray Powder Diffractometry and Spectrometry - Steinfink</i>
May 20-24	<i>Techniques in Nuclear Radiation Shield Analysis (in Fort Worth, Texas) - Hertel</i>
May 29-31	<i>Clay Liners and Covers for Waste Disposal Facilities (in Los Angeles, California) - Daniel</i>
June 3-5	<i>Power System Harmonics - Grady</i>
June 10-14	<i>Fundamentals of Electric Power System Engineering - Grady</i>
June 10-12	<i>Water Quality Modeling - Armstrong</i>
June 12-14	<i>Water Quality Modeling with WASP4 - Armstrong</i>
June 12-14	<i>Clay Liners and Covers for Waste Disposal Facilities (in Austin, TX) - Daniel</i>
June 12-14	<i>Fundamentals and Applications of Mechanics of Fracture - Rodin</i>
June 17-20	<i>Fundamentals of Orbit Determination: Theory and Applications - Tarpley</i>
June 18-20	<i>Rock Properties and Heterogeneity - Lake</i>
For more information, inquire: Continuing Engineering Studies, College of Engineering, Cockrell Hall 10.325, The University of Texas at Austin, Austin, Texas 78712, (512) 471-3506 or 471-3396. FAX (512) 471-0831.	

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