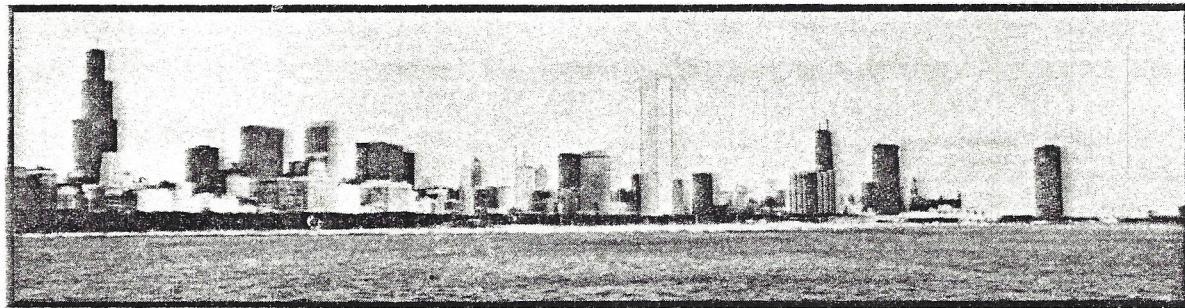


NEWSLETTER



86 EAST RANDOLPH ST.

CHICAGO, ILLINOIS 60601

CHAIRMAN'S MESSAGE

Welcome to the 54th year of the Chicago Section. The Chicago Section has the distinction of being the first local AIChE section formed and it has maintained a leadership position in the Institute throughout its history. Your new Board of Directors is proud to serve the Section and will carry on the fine programs so ably administered by Past Chairman Bill Sandstrom and last year's board.

We are fortunate to have a fine group of officers and committee chairmen who make up the Board of Directors. Please take time to look over the list of these board members in this newsletter. You are encouraged to give comments or suggestions to any board member at any time. We want to know what kinds of programs and activities you want so that we can serve you better.

This year we depart from tradition and have our first general meeting in September. We are starting one month earlier than in previous years so we can dispense with the December meeting. It has become apparent that the busy holiday season in December results in poor meeting attendance.

The September 12 program, at Argonne National Laboratory, looks like an exciting meeting to start the year. This meeting, which includes a laboratory tour, will be an excellent opportunity to see and hear about current energy research. Be sure to note that advanced registration is required to gain admittance to Argonne so don't forget to make your reservations. The event is described in detail later in this newsletter.

Looking ahead, you won't want to miss the October program either. Dr. Bernard Lee, President of the Institute of Gas Technology, will discuss the energy situation in China and tell us about his trip there this summer. Programs for the rest of the year are in the planning stage. Suggestions are always welcome and Bill Swift, Program Chairman, would be delighted to talk to you. As usual, meeting locations will be rotated throughout the Loop and suburbs.

Membership participation is vital to the Section and the need for additional help never ends. Section work is most rewarding and time involvement is generally not excessive. It's a great way to meet fellow chemical engineers in the Chicago area and contribute to our profession. I'm sure many of you will be asked to help but don't hesitate to volunteer to any board member. Most committees need people and, in addition, a staff will have to be assembled to handle the 1980 National Meeting we will host.

I'm looking forward to meeting and working with you during the coming year.

Dick Garrison

MEETING - WEDNESDAY, SEPTEMBER 12, 1979

Location.....Argonne National Laboratory
9700 S. Cass Avenue, Argonne, Illinois

Tour of ANL
Chemical Engineering Division.....3:30 p.m.

Social Hour.....5:30 p.m.

Dinner.....6:30 p.m.

Speaker.....Dr. Paul Nelson, Director
Chemical & Electrical Systems

Cost.....\$7.50 members, \$8.50 non-members

IMPORTANT NOTICE CONCERNING RESERVATIONS

MAKE RESERVATIONS EARLY BY CALLING 236-3036. THE RESERVATION DEADLINE IS AUGUST 31, 1979. PLEASE GIVE YOUR NAME, AFFILIATION, AND COUNTRY OF CITIZENSHIP AND INDICATE WHETHER OR NOT YOU WILL BE ATTENDING THE TOUR. ATTENDANCE WILL BE LIMITED AND RESERVATIONS WILL NOT BE ACCEPTED AFTER AUGUST 31. IT IS ABSOLUTELY ESSENTIAL THAT THOSE PLANNING TO VISIT THE LABORATORY PRE-REGISTER. NO ONE WILL BE ADMITTED TO THE LABORATORY WHOSE NAME DOES NOT APPEAR ON THE LIST OF ATTENDEES PROVIDED TO LABORATORY SECURITY.

DIRECTIONS

Argonne National Laboratory is located just south of I-55 and just west of Illinois Highway 83. Those attending the afternoon tour should report to the Visitors Reception Center (refer to accompanying map for details) located on Cass Avenue to obtain a gate pass. From the Reception Center, enter the laboratory on Eastwood Road and proceed to the Chemical Engineering Building (Building 205). Report to the front lobby to register and receive further instructions.

For those arriving after 5 p.m. for the dinner and evening program, proceed directly to the guard post on either Eastwood or Westgate Roads for gate passes. Then proceed to the Cafeteria (Building 213) for registration.

TOUR OF ANL CHEMICAL ENGINEERING FACILITIES, 3:30 p.m.

Guided tour of the Chemical Engineering Building at Argonne National Laboratory will begin from the Building 205 Y-Wing Auditorium.

ARGONNE
NATIONAL LABORATORY

BUILDING

BUILDING	360-385 Zero Gradient Synchrotron Complex
	382 High Energy Physics Building
	683 Canal Cooling Water Treatment Plant
	600-621 Lodging Facility
	603 Swimming Pool
801 Accounting, Administrative Data Processing & Controller	801 Accounting, Administrative Data Processing & Controller
	805 Property Recycling
	817 & 818 Electronics
	829 Hydrogen Laboratory
	832 Pistol Range
951 Guard Post	951 Guard Post
	948 Visitor Reception Center
	951 Argonne Recreation Center

BUILDING

8
 360-386 Zero Gravity
 362-374 High Energy
 683 Canal Cleaning W
 600-621 Lodging Fa
 603 Swimming Pool
 861 Accounting, Adm
 Processing & Co
 866 Property Recovery
 817 & 818 Electronics
 829 Hydrogen Labra
 832 Petrol Range
 832 Guard Post
 948 Visitors Reception
 951 Argonne Research

BUILDING	360-395: Zero Gradient Synchrotron
	362-374: High Energy Physics Building
	683: Canal Cooling Water Treatment
	600-621: Lodging Facility
	603: Swimming Pool
	801: Accounting, Administrative Processing & Controller
	805: Property Recycling
	817 & 818: Electronics
	829: Hydrogen Laboratory
	832: Pilot Range
	849: Guard Post
	948: Visitor Reception Center
	951: Argonne Recreation Center

BUILDING
4
Engineering
Mathematics
Life Sciences and the
Humanities
Business
Information Systems
Office of Storage
Operations-Reclamation
Components Technology
Applied Physics
in Materials-Division: Office
of Technology
and Environmental Affairs
Animal Charities
Lakewood Ranch

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Safety - Applied

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Cost
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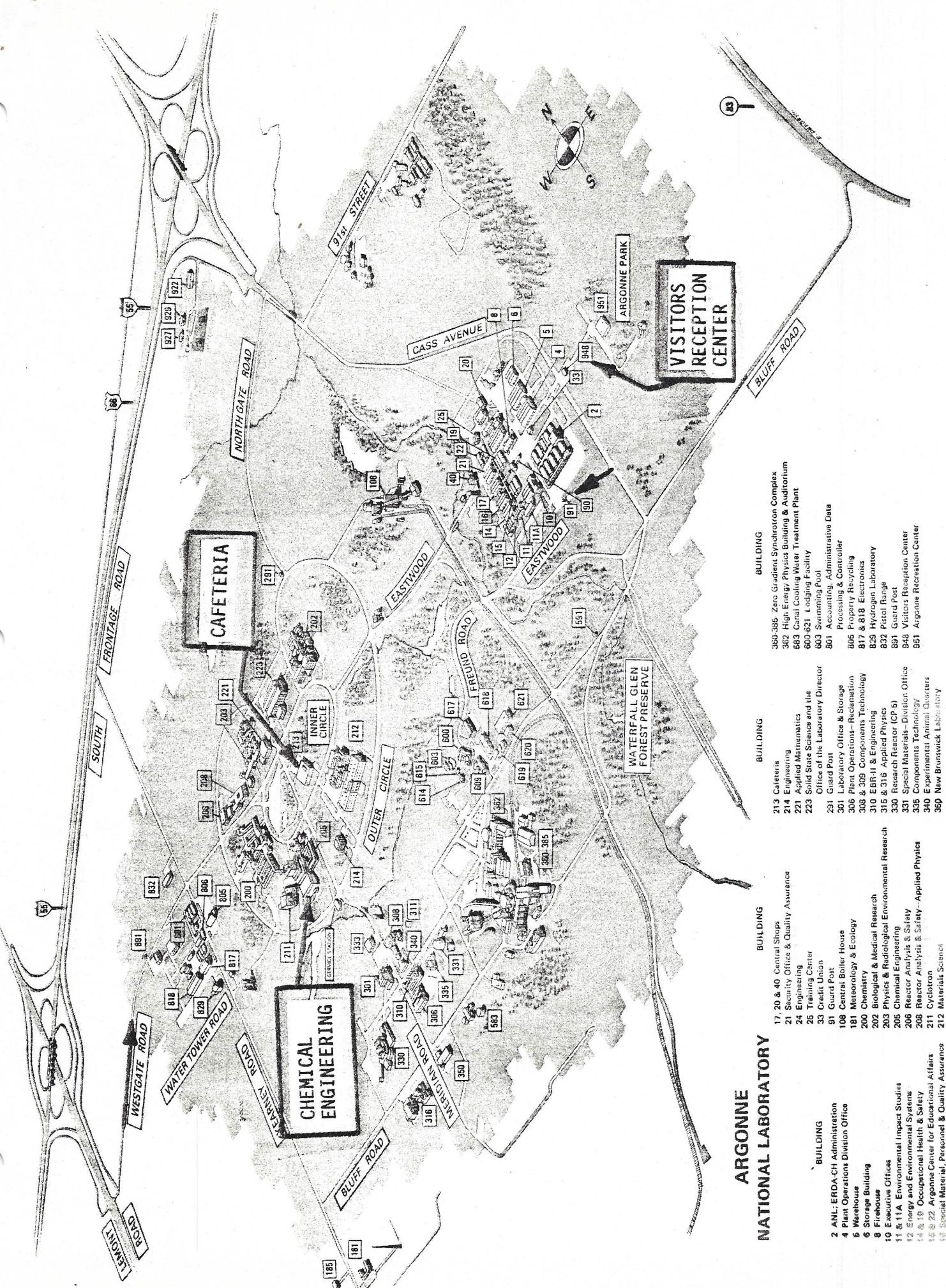
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- 24 Engineer
- 25 Training
- 33 Credit U.
- 91 Guard P.
- 108 Chemical
- 181 Meteorol.
- 200 Chemist
- 202 Biological
- 203 Physics
- 205 Chemical
- 206 Reactor
- 211 Cyclotrons
- 212 Material

4
Affairs
Assurance

Impact Studies
Instructional Systems
Health & Safety
for Education
Personnel & Quality

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BUILDING
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 6 Storage
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 15 & 22 Oct
 18 Executive



SOCIAL HOUR, 5:30 p.m.

A cash bar will be held prior to dinner in the laboratory cafeteria (Building 213).

Dinner, 6:30 p.m.

A prime rib dinner will be prepared and served by the laboratory food service department in the cafeteria (Building 213).

After Dinner Program

Topic: Prospects for Electric Vehicle Battery Development.

Speaker: Dr. Paul Nelson, Director of Chemical and Electrical Systems, Chemical Engineering Division, Argonne National Laboratory. Dr. Nelson obtained his B.S. degree in Chemical Engineering from Illinois Institute of Technology and received his M.S. and Ph.D. degrees in Chemical Engineering from Northwestern University. He joined the Chemical Engineering Division of Argonne National Laboratory in January 1958, where he participated in the development of metal-evaporation techniques and in the selection and evaluation of container materials for fuel reprocessing. He has also developed processes for preparing nuclear fuels, and has directed the development of a purification process for plutonium-238. Following these and other projects, Dr. Nelson joined the Chemical Engineering Division's Battery Program in 1972. He is currently Director of Chemical and Electrical Systems. This program includes projects on development of lithium sulfide batteries, testing of various advanced commercial batteries, thermal storage for solar energy and transportation applications, and use of hydrides for energy storage. Dr. Nelson has authored approximately 70 papers in diverse fields, including electric vehicles, lithium sulfide batteries, sodium technology, and development of pyrochemical processes for purifying plutonium and uranium. He is a member of the American Institute of Chemical Engineers.

ABSTRACT

Electric vehicles have inadequate performance to substitute for gasoline-powered vehicles in most sectors of the vehicle market. Part of this inadequacy can be overcome by improved vehicle and drive train design, but the major improvement required is in the battery performance. Several battery systems are under development that show promise of meeting the requirements. In the near-term, improved lead-acid batteries, nickel/zinc and nickel/iron batteries should spur the development of practical vehicles. In the long-term, zinc/chlorine, lithium/iron sulfide and sodium/sulfur batteries show promise of providing energy for a vehicle range of 100 to 200 miles in a battery of moderate weight and cost.

1979-80 CHICAGO SECTION OFFICERS

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Chairman-Elect	Phil Lindahl	City of Des Plaines	297-1200
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Treasurer	Ray Chase	IGT	542-7094
Vice Chairman, Program	Bill Swift	Argonne	972-4388
House	John Forgac	Amoco Oil	420-4960
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Student Relations	Jim Aderhold	Amoco Oil	420-5847
Employment Guidelines	Charlie Opperman	Pigment Applications	233-4515
Constitution and Bylaws	Mike Lucas	Abbott Labs	945-3678
Vocational Guidance	Gil Meyer	CPC	352-0892
Awards and Nominations	Bill Bergman	Metro. Sanitary District	274-3136

Candidates Needed for the State of Illinois Professional Engineering Examination Committee

Members of the Chicago Section who are also Registered Professional Engineers and who would like to be considered for being a member of the Professional Engineering Examining Committee should inform Richard Larrison, Chairman of the Chicago Section, of your interest. Candidates must be Registered Professional Engineer with 12 years of professional experience. They must have been in charge of engineering work for five years and must be a citizen of the U. S. and a State of Illinois resident.

Members of the committee are selected for a three-year term by the Director of the Department of Registration and Education (Joan Anderson) from a list of candidates supplied by the various professional organizations. Since being a member requires about 20 days per year away from work to attend meetings and the P.E. exams, you need an understanding boss or a flexible work schedule.

Since the committee is composed of members from the different engineering disciplines, the Chicago Section tries to nominate one or two Section members as candidates whenever there may be an opening for a chemical engineer on the P.E. Exam Committee. If you want to know more about this prestigious position, contact LARS MOLANDER, STAUFFER CHEMICAL COMPANY, 11th and Arnold Streets, Chicago Heights, Illinois 60411, 312-757-6111.

OBJECTIVES OF THE AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

- To advance chemical engineering in theory and practice
- To maintain a high professional standard among its members
- To serve society, particularly where chemical engineering can contribute to the public interest.

This newsletter is published by the Chicago Section of the American Institute of Chemical Engineers. Copy for inclusion in the newsletter must be received not later than five weeks before the next meeting date.

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