

History of the Petroleum and Chemical Industry Committee

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THIRTY years ago, on Monday, September 27, 1954, the Petroleum Industry Conference (PIC) convened its first meeting at the Mayo Hotel in Tulsa, OK. It was sponsored by what was then the Petroleum Committee of the American Institute of Electrical Engineers (AIEE). The Tulsa meeting in 1954 was the beginning for this newly formed committee of the AIEE.

Originally the Petroleum Industry met with the Chemical Industry of the AIEE. These meetings were held in conjunction with the former AIEE winter meetings, which were always held in New York City. On January 24, 1952, the Petroleum Industry Subcommittee of the AIEE Chemical Industry Committee presented two sessions at the winter meeting. This was the last technical session of the Petroleum Subcommittee prior to its upgrading to full committee status.

Some members of the former petroleum subcommittee felt that there was no need for a full committee status, nor a separate conference sponsored by AIEE. They felt that the Electrical Subcommittee of the American Petroleum Institute (API) was adequate to meet the needs of these people. At this time the API was working on the first version of RP-500 "Recommended Practice for Classification of Areas for Electrical Installation in Petroleum Refining."

Notwithstanding this conflict, the PIC was formed in 1953 with the following officers:

J. Z. Linsenmeyer, *Chairman*,
V. J. Sittel, *Vice-Chairman*,
C. R. Olson, *Secretary*.

This newly elected group made plans for the 1954 conference and decided that it should be held at what was then considered the focal area for the petroleum industry, Tulsa, OK. A conference chairman was appointed and subcommittees were also formed for projection, transportation, and refining; each of whom had the responsibility for arranging the various technical sessions in their spheres of interest. Those responsible for the operation of that first conference in 1954 were

W. H. Stueve, *Tulsa Conference Chairman*;
W. F. Hildebrandt, *Productions Subcommittee Chairman*;
A. L. Stegner, *Transportation Subcommittee Chairman*;
V. J. Sittel, *Refining Subcommittee Chairman*.

Rather than foster competition and possible conflict, the PIC and API Electrical Subcommittee agreed significantly some fifteen years or more ago that the two meetings be held together, a practice still adhered to today. The API meetings,

traditionally one day in length, are held in conjunction with the PCI meeting. The result has been that the active API members have also become active officers in the IEEE.

On January 1, 1963, the IRE (Institute of Radio Engineers) officially merged with the AIEE to form the IEEE (the Institute of Electrical and Electronics Engineers, Inc.). Under the New IEEE, there was an Industry Division, that later became known as the Industry and General Applications Division (IGA). Discussions were held to change the divisional status to a full "group" status, in line with an organizational structure utilized within the previous IRE. The advantage of a group over a divisional status was

- 1) unity of purpose and interest;
- 2) publications specifically dedicated to the interest of the group, with each committee determining the papers to be published in the TRANSACTIONS;
- 3) group control of its own budget and meetings;
- 4) establishment of local group chapters.

The IGA Group was formed on January 1, 1965. The heart of this group was 23 technical committees of the Technical Operations Department. In 1972 the IGA changed its name and structure to the Industry Applications Society, now known as the IAS, and this was accomplished without any basic change in purpose or function.

As mentioned earlier, the Petroleum Industry Committee had pulled away from the Chemical Industry Committee because of divergent interests between the attendees at conferences. Problems of the petroleum industry in those days were far different than those for the people who made up the bulk of the chemical industry committee. However, as happens in many endeavors, by 1968 a similarity had again developed; the term "petrochemical" had become commonplace and there was a common bond of interest between the petroleum electrical engineer and the chemical electrical engineer. Thus these two groups rejoined for the first meeting in 1968 and formed the Petroleum and Chemical Industry Committee (PCIC) which provided additional strength for both elements.

The past 30 years have shown great progress by the Petroleum and Chemical Industry Committee through these conferences. The committee has grown in both size and stature. From the original central committee, it has grown to now include seven sessions sponsoring technical subcommittees and seven managing subcommittees. The Executive Subcommittee, Advisory and Awards, Papers Review, Membership, Standards, Historical, and Publicity and Publications. Additionally there are working groups as may be required for

special projects, and finally, seven liaison representatives to interface with other organizations. The growth of this conference is impressive. Attendees are international in scope. All 30 host cities and generally to members of the local IEEE chapters by a local conference chairman and a local committee.

A great measure of the success for the PCIC must go to the 30 host cities and generally members of the local IEEE chapters who are solely responsible for the success of each and every conference. A local in each particular case plans a conference, and measures the results when the conference is over. The PCIC has an enviable and outstanding record of never having had an unsuccessful conference; either in terms of technical papers, attendance, or proceeds insufficient to cover expenses adequately in all of its 30 year history. It is one of the very few committees within the Institute of Electrical and Electronics Engineers organization can boast of this very proud record.

Although the growth figures and the performance are impressive, the real measures of success are the contributions that this committee, the subcommittees, and the conference participants have made and continue to make. Among their achievements they have

- 1) Provided a formal platform for interchange of ideas related to new and improved technology in both general and specific fields. As specific fields became defined additional subcommittees or working groups were established so that special emphasis could be given to these new fields.
- 2) Provided cost-effective standards in which industry, suppliers, and government have confidence.
- 3) Provided through IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS and PCIC Conference Records worldwide communication within the petroleum and chemical industries, as well as within other industries with similar problems.
- 4) Provided in these conferences an informal meeting ground in which valuable associations can be made and old friendships can be renewed.
- 5) Provided a direct contribution to technology and industry practices in the following areas:
 - a) large process system heat recovery;
 - b) development and application of large synchronous and induction motors;
 - c) development of severe duty 460 V motors;
 - d) development and application of large variable speed drives;
 - e) inplant electric power generation;
 - f) use of foundations for grounding;
 - g) high resistance grounding of electrical systems;
 - h) field testing of medium voltage cable;
 - i) cathodic production systems;
 - j) wire and cable application and ampacities;
 - k) lighting;
 - l) flammable atmospheres;
 - m) controls;
 - n) computer applications.
- 6) Provided a number of standards and standards projects;

some of them have been adopted by the National Electric Code.

Standard Description

- a) 303-Motor Auxiliaries for Division 2 areas;
- b) 463-Work Practices in Electrolytic Cell areas;
- c) 515-Electrical Resistance Heat Tracing;
- d) P576-Cable Installation;
- e) P841-Chemical Industry Motors;
- f) P844-Impedance Induction, and Skin Effect Heat Tracing;
- g) P1017-Field Testing for Downhole Submersible Pumps;
- h) P1018-Ethylene Propylene Cable for Downhole Submersible Pumps;
- i) P1019-Polypropylene Cable for Downhole Submersible Pumps.

The early Executive Subcommittee of the Petroleum Industry Committee had to address itself to important questions which have affected the direction of the PCIC over the years. Among the determinations made were

- 1) program format;
- 2) exhibits and/or commercialism;
- 3) meeting location.

The meeting format for every conference throughout the 30 year history has consisted of a general program on the first day, subcommittee programs running concurrently on the second day and the morning of the third day, and closing the conference with a general program again on the afternoon of that third day.

The original meetings, up to and including the San Francisco meeting in 1966, included as a part of the program an inspection trip to a refinery, pipeline terminal, or production facility within the immediate area of where the conference was being held. Inspection trips were dropped as a part of the conference activities when it became apparent that the interest of the attendees were so wide that a problem developed in arranging inspection trips that would be of interest to the entire group. Concurrent with this problem was the fact that subcommittees, working groups, and standards group meetings, along with others had to have a business meeting time allotted, and therefore Tuesday afternoon is now scheduled for these essential and important functions.

A second major decision that has affected the procedure of the conference through the years was that of exhibits or commercialism. Many old-timers will remember that there is also a Petroleum Industry Electrical Association-Petroleum Electric Supply Association (PIEA-PESA) (in April 1978, the name changed to Energy Telecommunications & Electrical Association-Entelec) which meets in the spring of every year, and traditionally in South-Houston, Dallas, Tulsa, and Shreveport. This group, made up of many of the same attendees as the original PIC, centers its primary function on an extensive array of electrical and electronics exhibits. As a result of this annual affair, pressure was put on the AIEE-PCI to have exhibits at its annual meeting. The committee

yielded to this pressure for one year on a trial basis and had exhibits as a part of the conference at the third annual meeting, held at the Muehlebach Hotel in Kansas City, MO.

Following that meeting the Executive Subcommittee recommended for adoption by the Petroleum Industry Committee that future conferences would stress and present only technical papers of current interest, of unique design, of solutions to problems covering the fields of interest to the committee, and the interchange of ideas between the attendees. Second, exhibits would no longer be a part of the conference format, neither under the sponsorship of the committee, nor allowed by individual exhibitors. It was also recognized that the AIEE (now IEEE) membership is held by an individual and not by a company. Therefore there is no line drawn between a "user" and a "supplier."

The net result of these decisions of our early leaders has provided a conference format essentially free of commercialism, and a strong emphasis that is placed on the technical superiority and competence of the conference through the papers and the interchange of ideas on a one-to-one basis by the conferees. In an effort to maintain the principal objective of the meeting, rules of etiquette were drawn up in 1968 for the supplier companies that wished to operate hospitality rooms.

The first three annual conferences were held in the central part of the United States—Tulsa, 1954; Houston, 1955; and Kansas City, 1956. After serious deliberation it was decided to hold the 1957 meeting in Philadelphia. The outstanding success of this meeting confirmed the wisdom of holding the annual conference in various sections of the country wherein there are major petroleum and chemical industries. It also provides a necessary forum for the exposure of local engineers who may not be able to travel to a distant conference site. In 1960 the Executive Subcommittee adopted the five year cycle of central, eastern, and western locations, that has been maintained since that time.

The key to success of an annual conference is a local chairman and his local committee which must provide the planning, facilities, and execution of the conference. Therefore, some guiding parameters in selecting an annual conference site are as follows.

- 1) The host city must have an IEEE local chapter that is not only willing and able, but has expressed in writing a desire to support the PCIC in every possible way.
- 2) A local conference chairman and prospective co-workers are needed who are willing to serve and have the wholehearted support of their company to accept such responsibilities.
- 3) The Local Conference Chairman must be a member of the PCIC and when appointed becomes a member of the Executive Subcommittee. In general he would have had at least four years of exposure to the details of activities required to provide a successful conference.
- 4) Adequate hotel/motel facilities and a staff that is experienced in handling conferences are required.

These past thirty years are ones that the people in the electrical field of the chemical and petroleum industry can

be proud of indeed. All segments of the industry, working together, be they the user, the contractor, the suppliers, or the educator, have done their part to produce an outstanding accomplishment which has grown from a modest beginning in 1954 of just over 100 in attendance, to conferences of well over 700, including spouses, in the past several years.

The PCIC is especially proud, and justifiably so, of its outstanding and enviable records of having 50 to 75 percent of its conference papers upgraded to TRANSACTIONS status—83 of 137 during the last four years.

The PCIC annually awards certificates to the author(s) of the best papers from each subcommittee and along with that certificate a small honorarium is included.

The highest award given by the PCIC is its coveted Certificate of Appreciation acknowledging its debt of gratitude for services rendered in furthering the objectives of the IEEE. During this first quarter century, the PCIC has given this award only eight times. The recipients over this span of time are

Mr. Max H. Halderson	1969
Phillips Petroleum Company	
Mr. John J. Sonniifer	1969
Shell Pipeline Company	
Mr. W. H. Dickinson	1970
Esso Research and Engineering	
Mr. Russ W. Mills	1972
Reliance Electric Company	
Mr. George B. Jamison	1973
Crouse Hinds Company	
Mr. Franklin P. Gertson	1974
Texas Eastern Transmission Corporation	
Mr. Wm. E. Burpee	1976
The Badger Company	
Mr. Thomas R. Shaw	1978
Phillips Petroleum Company	
Mr. Sam P. Axe	1979
Atlantic Richfield Company	
Mr. A. F. Vieweg	1980
Fluor Engineers and Constructors	
Mr. J. A. Stewart	1982
F.M.C. Corporation.	

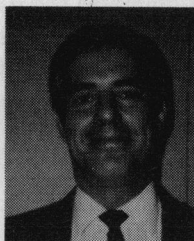
"The scope of the PCIC is the treatment of all matters within the scope of the Industry Applications Society in which the emphasis or dominant factor specifically relates to production, manufacturing, and transportation of petroleum and chemical products."

IEEE-PCIC CHAIRMEN

1953-1956	J. Z. Linsenmeyer
	Westinghouse Electric Company
1957	R. S. Cannon
	Plantation Pipeline
1958	L. E. Oberhelman
	Standard Oil Company—Indiana
1959	H. M. Stewart
	Humble Oil & Refining Company
	(Now Exxon)

1960	Merritt A. Hyde Westinghouse Electric Company
1961-1962	W. H. Dickinson Esso Research & Engineering Company (Now Exxon)
1963-1964	Everett B. Turner General Electric Company (Now with Continental Pipeline)
1965-1966	R. W. Mills Reliance Electric Company
1967-1968	W. E. Burpee Badger Company
1969-1970	F. P. Gertson The Texas Eastern Transmission Company
1971-1972	T. R. Shaw Phillips Petroleum Company
1973-1974	S. P. Axe Atlantic Richfield Company
1975-1976	A. F. Vieweg Fluor Engineers & Constructors
1977-1978	J. A. Stewart F.M.C. Corporation

1979-1980	W. L. Moser Amoco Chemicals Corporation
1981-1982	E. J. Fagan E. I. du Pont de Nemours & Company
1983	R. M. Jackson Union Oil Company of California.



Enrique S. Saavedra (S'68-M'69-M'80) was born in Havana, Cuba, on May 14, 1944. He received the B.S., M.S., and Ph.D. degrees in electrical engineering, in 1967, 1968, and 1969, respectively, from the University of Florida, Gainesville.

From 1969 to 1971 he was employed by the Shell Chemical Company, Deer Park, TX. From 1971 to 1974 he was with Nunn Electrical Supply Company, San Juan, PR. From 1974 to 1976 he was with Philips Electrologica, Eindhoven, The Netherlands.

From 1977 to 1983 he was with the Nunn Electric Supply Company in Houston, TX as International Vice President and National Accounts Vice President. Since January 1984 he has been President of Energy Electric Industrial Supply, Inc.

Dr. Saavedra is a member of Benton Society of Professional Engineers-Instrument Society of America, the Houston Engineering and Scientific Society, NAED, and Eta Kappa Nu.