

FORMATION

A somewhat controversial Engineers' License Law, enacted in 1919, was the focal interest primarily responsible for the formation of the Colorado Engineering Council. The organizational meeting of the Colorado Engineering Council was held at the Albany Hotel (in downtown Denver) on May 16, 1919, following an informal conference two weeks earlier among eight local engineering and scientific groups. Formation of such an association was without precedent, and necessitated the drafting and adoption of an original constitution that would be simple but broad enough to encompass the professional, technical, and educational objectives of the association. The constitution which was drafted subsequently was ratified by the following eight charter member organizations of the Colorado Engineering Council:

- Colorado Association of Members of the American Society of Civil Engineers;
- Colorado Section of the American Institute of Mining and Metallurgical Engineers;
- Denver Section of the American Institute of Electrical Engineers;
- Colorado Section of the American Society of Mechanical Engineers;
- Colorado Society of Engineers;
- Engineering Group of the Civil and Commercial Association;
- Colorado Scientific Society; and,
- Teknik Club.

Among the charter members of the newly formed Colorado Engineering Council, the Colorado Scientific Society, organized in 1882, was the oldest; and the American Society of Mechanical Engineers Colorado Section, organized in 1919, was the youngest.

GROWTH

In 1920, the admission to Council of the Rocky Mountain Chapter of the American Institute of Architects increased the total member organizations to nine. In the ensuing years many additional technical and scientific organizations have become affiliated with the Colorado Engineering Council. Because of changing conditions and emphasis in constituent organizations through the years, Council has suffered some resignations of member organizations. Council lost the first of its charter members in 1926 when the Denver Chamber of Commerce was organized from the Denver Civil and Commercial Association and the Engineering Group of the Association was discontinued as a working organization. The loss of the Engineering Group of the Civil and Commercial Association was partially compensated by the privilege of having a representative on the advisory board of the Chamber of Commerce. This privilege continued until the 1960's when changed operating rules of the Chamber no longer permitted extending this courtesy to non-members of that body.

Council has grown slowly but steadily through the years. The emphasis has been on quality rather than number of organizations. The qualifications of each organization requesting admission to Council are carefully scrutinized by the Advisory Committee, which is comprised of Past Presidents of Council. By the mid-1980's, the number of constituent organizations in Council had increased to twenty-eight. The long tradition of being an all male organization was broken in 1961, when the Society of Women Engineers was admitted to Council. The total

number of individuals who have served as Representatives or Alternates through the years for the constituent organizations is more than 950. Council publishes a complete roster of present and past members in December of each year.

Growth of the Council has required changes in the Constitution and Bylaws so that Council could remain responsive and to maintain its ability to act in accordance with the basic purposes of the organization. The fundamental purpose of Council has remained as it was formulated by the founders, although specific wording has been altered somewhat. The purpose of Council is stated in Article 2 of the Constitution, "The purpose of the Council shall be to coordinate and promote the interests of the constituent organizations represented in the Council by providing a unified effort devoted to the advancement of the professional, technical, educational, and ethical interests and standards of professional organizations which are engaged in the various branches of engineering, architecture, or science, and of technical organizations which function in close support of the foregoing professions."

Several important changes were made in the Constitution and Bylaws adopted on October 8, 1958, as a result of extensive studies and considerations that began in 1953. The basic purpose of the 1958 revision was to safeguard the very favorable tax-exempt status held by many of the constituent organizations of Council. This tax-exempt status is based on the requirement that no substantial part of a society's activities or funds be used to influence legislation.

While very little of the dues income from the constituent organizations has been used in support of professional registration laws for engineers, architects, and surveyors, it was thought desirable to avoid any direct connection between the parent societies and the actions of Council. Under the 1958 Constitution, the constituent organizations pay nominal dues for financial support of Council, but they exercise no control, and are not responsible for the actions of Council. This separation exists because the Constitution vests the power to determine the policies and specific actions of Council solely with the individual Representatives, Officers, and Directors who constitute the Council of Representatives. Each Representative from a constituent organization is free to vote as he or she sees fit on questions before Council, but the Constitution provides that no constituent organization shall be committed by any action of Council which conflicts with the policy of that organization.

Another significant change in the Constitution in 1958 required that Council be incorporated as a non-profit organization under the laws of the State of Colorado. A certificate of incorporation was issued on November 20, 1958.

The Constitution and Bylaws have been amended a number of times since their adoption in 1958. These amendments have been in the nature of keeping the Constitution and Bylaws up to date but have not changed the fundamental principles of the organization.

FINANCES

Income for the operating expenses of Council is derived from the dues paid by

constituent organizations. The primary expenses of Council entail publishing and distributing the Minutes of the monthly meetings, some officer and committee expenses, expenses and donations associated with educational activities, costs of medals and awards, and printing expenses associated with the anniversary program, roster, Constitution, and Bylaws. No member of Council receives payment for the services he or she renders. Council has obtained some income by sponsoring special meetings such as the Annual Engineers Dinner, and such income normally is partially reserved for the next annual meeting and as a safeguard against unforeseen expenses.

The organizational and incorporated status of Council is such that it is permitted to engage in activities that may influence legislation. The legislative activity of Council is limited by basic policy to laws, such as the Professional Engineer Registration Law, that have a definite bearing on maintaining high standards in the technical professions for the protection of the public interest. As a further safeguard of the tax status of constituent organizations, only minor amounts of CEC funds are used for legislative activity of this type. When the need for funds to sponsor legislation arises, a special fund, apart from the regular operating funds of Council, is set up. The funds for legislation are secured primarily by donations from individuals and from organizations which are not barred from influencing legislation.

LEGISLATIVE ACTIVITIES

Legislative activity concerning the Professional Engineer Registration Law was one of the first activities of the newly-formed Colorado Engineering Council. The licensing and registration laws for engineering and allied professions have remained the primary concern of Council through the years.

Immediately upon its formation in 1919, Council plunged into what was perhaps one of the most controversial matters it has ever undertaken. At the organizational meeting, in anticipation that the constitution would be promptly ratified by the charter members, a special meeting was called for a week later to permit a full and free discussion of the pros and cons of the registration law that had been enacted a few weeks earlier by the legislature, largely because of efforts of the Colorado Society of Engineers. The special meeting resulted in the consensus that the enacted law must either be repealed or be extensively amended, as there were various and conflicting views of the practicability of the law.

The principal work of the young Council during the remainder of 1919 and throughout 1920 was to study and draft a new engineer's license law that would be satisfactory to a majority of engineers and which might be enacted by the 1921 legislature to replace the 1919 statute. One novel provision in the proposed new law received very strong support; the provision gave the State Board of Engineering Examiners the authority to apply surplus annual renewal fees for the purchase of books and technical literature for the maintenance of a scientific and engineering library.

The revised draft became law on April 5, 1921. The book purchase feature of the law was unique among the states having engineering licensing laws. The engineering and scientific

library depository of books procured under the provisions of the law was established as a technical department of the Denver Public Library. The Colorado Scientific Society loaned 2500 of its volumes as a nucleus, and the library was officially dedicated under the auspices of Council on April 9, 1923. This wise provision has been retained in all the various changed and rewritten Colorado engineer's licensing and registration laws enacted since 1921.

The legislative activities of Council are largely the responsibility of one of its standing committees, the Governmental Affairs Committee. A second standing committee, the Governmental Appointments Committee, is responsible for providing the names of technically qualified persons whom Council recommends for appointment to various boards and bodies in the city and state, when such recommendations are deemed to be in the best professional interest of the public. Such recommendations are based solely on the qualifications of the individual and are made without political consideration.

The book purchase provision in the licensing and registration law resulted in the creation of the standing Library Committee of Council. This committee and the technical library staff of the Denver Public Library review the needs and desirable acquisitions for the Scientific and Engineering Section of the Denver Public Library, which is the depository for books purchased with funds derived from registration fees. Books are carefully selected to use the available funds and to maintain a high standard of technical excellence in the library. Because of the contribution of registration funds to the library, a special privilege there permits any registered engineer to borrow books from this section of the library upon presentation of a Professional Engineer Certification card. This privilege is extended regardless of where the registered engineer lives in the State of Colorado.

EDUCATIONAL ACTIVITIES

Council's vital interest in education is demonstrated by the fact that three of the ten standing committees are directly concerned with education. From its inception, Council has recognized technical education as the keystone of professional development for engineers, architects, and scientists. All the support, encouragement, and influence that Council commands has been directed toward improving technical education programs and facilities in the State.

Among the first official activities in the educational field was joint participation with the faculties of the engineering schools in the sponsorship of "Engineers Day" at each school. As a further incentive toward excellence in engineering education, Council authorized the annual award of a medal to the outstanding student in each accredited engineering school in the State. The outstanding student is selected by Council's Student Awards Committee from among three top students nominated by each school. An engraved Silver Medal is presented to the winner and a Certificate of Merit is presented to each of the other two students at each school. Presentations usually are made on Engineers' Day or at some other appropriate time by the President of Council.

Council also is active in promoting engineering and science careers for students in junior and senior high schools through its Educational Counseling Committee. This committee

arranges for a large number of qualified speakers in the various fields of science and engineering to speak to several thousand students annually at Career Day programs in junior and senior high schools.

Another educational activity at the junior and senior high school level in which Council has a vital interest is the Science Fair program. Council's Science Fair Committee coordinates the efforts and interests of Council as a co-sponsor of the Colorado State Science Fair. Each year Council makes a substantial financial contribution to this worthwhile program.

Council also makes financial contributions and appoints special committees to study continuing education, engineering curricula proposals, and to cooperate in any way possible with the engineering schools in the State.

PROFESSIONAL AND CIVIC ACTIVITIES

The offices of Council are open to all activities that foster professionalism and promote broad development and harmony among all technical and scientific professions. Council fosters and hosts meetings such as the Annual Engineers Dinner and other similar type meetings which are of interest to a broad segment of the constituent organizations of Council.

In addition to supporting activities of constituent organizations, Council draws upon the vast knowledge of current and past members in appointing special committees and representatives to advise and to assist in civic matters where technical advice is needed or requested. Council has created special committees to advise on problems such as air pollution, water law codification, revisions to the engineering registration law, and other problems of broad public and technical interest.

AWARDS

In keeping with the policy of encouraging and recognizing outstanding accomplishments of student and practicing scientists, architects, surveyors, and engineers, Council confers awards in the form of a certificate or medal.

The medal, shown on the cover, was specially designed for Council by the late Robert K. Fuller and was officially approved by Council on September 14, 1927. The design of the medal was inspired by an appreciation of Aztec and Mayan art. The figures and symbols embodied in the design of the medal are true representations of the Mayan period of civilization. The standing figure, a Mayan chieftain, is presenting incense in a censer to the seated figure. The presentation of incense was a ceremonial custom among the Mayans when great honor was being conferred. In the left hand he holds a breast ornament which is also to be given to the honored one. The seated figure holds a knotted rope, a symbol of the engineering profession, and he may have been known as a rope stretcher, as the Egyptians so called their surveyors. The square symbols at the bottom of the medal are representative of the sun, the planet Venus, and the moon. Intertwined and forming the border of the medal is the feathered serpent, the fair,

golden-haired god of the air, a divinity who during his residence on the earth instructed the Mayans in the art of government, the use of metals, and in agriculture. These feathered serpents also occur in the design of the obverse side of the medal. On the obverse side, space is provided for a special inscription for each medal conferred by the Colorado Engineering Council.

The medal was first awarded to a student at the University of Colorado on May 25, 1927, but actual presentation was delayed pending approval of the actual design and procuring the dies which are used to strike the medals. The medal awarded to the outstanding engineering student at each school is struck in silver.

The medal which is presented to practicing scientists, architects, surveyors, and engineers is struck in gold using the same dies which are used to produce the silver medals for student awards. Council made the first Gold Medal Award to A. J. Weinig in 1930. The Gold Medal Award is the highest honor that Council bestows, and since 1930, only fourteen others have been accorded this honor. The presenting of this award is a rare and high honor, and to merit the award, an individual must be truly outstanding and have made superior contributions in his or her professional field.

STANDING COMMITTEES

The following nine standing committees of Council function as indicated:

- The **Advisory Committee**, which is composed of the President and all Past Presidents, functions primarily to provide counsel to the President when requested to do so. This committee also may function on its own initiative if it desires.
- The **Gold Medal and Honor Awards Committee**, which is composed of the Past Presidents of Council, functions to review the qualifications of persons nominated for Gold Medal or Honor Awards and to make recommendations to Council regarding the bestowing of such awards.
- The **Student Awards Committee**, of which the Vice President usually is Chairman, interviews students at the various engineering schools and makes recommendations for bestowing the Silver Medal and Certificates of Merit.
- The **Educational Counseling Committee** functions primarily to provide speakers on engineering and science for junior and senior high school students at Career Day programs.
- The **Science Fair Committee** represents Council in this activity and cooperates and coordinates with the other co-sponsors of the Colorado Science Fair.
- The **Library Committee** works with the staff of the Denver Public Library in reviewing available books and recommending purchases with the money made available by the State Board of Registration for Professional Engineers and Professional Land Surveyors.
- The **Governmental Affairs Committee** keeps Council informed of all legislative activity affecting members of the constituent organizations.

- The **Governmental Appointments Committee** recommends highly qualified men and women on a non-political basis to serve on technical boards and bodies of the State or cities.
- The **Auditing Committee** functions to verify Council financial activities and to advise Council on financial matters.

These standing committees handle the primary work of Council, but there are various and other ad hoc and special committees appointed from time to time to further the work of Council. The years have wrought changes in the committees of Council. The Luncheon Committee, which was established in 1924 and sponsored weekly luncheons on Tuesdays with speakers on subjects of technical interest, was abandoned in 1962 when attendance waned and it was apparent that this type of activity no longer served a need of constituent organizations. Other committees likewise have been created or have gone out of existence as needs changed through the years.

MEETINGS

The Colorado Engineering Council holds nine business meetings each year. Additional meetings may be scheduled if the need arises. The meetings are held at a designated location on the second Wednesday of each month except in July, August, and December.

The Holiday Reunion meeting is a social affair held each year in early December. All members (current and past officers and representatives) are invited to attend this meeting to renew old friendships and to meet the new members of Council. Special honor is paid to Gold Medal Award winners and to Past Presidents of Council at the reunion. The tradition of having a turkey dinner carved and served by members is a feature of this reunion. This practice, which once was a necessity, has survived as a delightful tradition, and it is considered a special honor to be chosen for this work. The Annual Holiday Reunion serves as a happy and fitting climax to the year's work of Council.