

Professional Engineering Registration in California

By ROYAL W. SORENSEN

TO REGISTER or not to register! That is the question being considered by many California Chemical, Electrical, Mechanical, and Petroleum engineers, and engineers in training in these branches of engineering and also in Civil engineering.

This situation has been brought about by the September 19, 1947 amendment to "The Civil Engineers' Art" of California.

That amendment pertains to registering of professional engineers in the branches above named and also authorizes for all qualified persons registration as engineer in training in Civil engineering as well as in the other specified branches.

Registration is administered by the State Board of Registration for Civil and Professional Engineers. This Board has seven members, three Civil engineers, and one each for Chemical, Electrical, Mechanical, and Petroleum engineering. The Board has, at present, two offices. The principle office is in Sacramento and the other office is in the State Building, Los Angeles.

Prospective registrants may obtain the proper application forms together with a copy of the Act and instructions for filing applications by a written request to:

Pecos H. Calahan, Executive Secretary
529 Business and Professions Building
Sacramento, California

Persons qualified for registration as Chemical, Electrical, Mechanical, or Petroleum engineers or as engineers in training *may* be registered without examination under the so called "Grandfather Clause", provided an application for such registration is filed before July 1, 1948. Practicing Civil engineers *must* be registered and can obtain registration only by examinations as provided for in the Act. Structural engineers *must* be registered and must first be registered civil engineers.

Persons qualified in more than one of the branches of engineering for which registration is provided may register in all the branches for which they are qualified if they so desire. A separate application is required for each branch. The years of experience for each registration must be unique for the branch specified with the exception of graduation from an engineering school or college which may be used as experience in all of the branches for which registration is requested.

The act forbids the practice of Civil or Structural engineering without registration, and entitles only persons registered under the act to take and use the title, "Professional Engineer, Civil Engineer, Structural Engineer, Chemical Engineer, Electrical Engineer, Mechanical Engineer, Petroleum Engineer, or Engineer in Training".

The qualifications for professional engineer registration are at least six years of engineering experience. Graduation from an approved engineering college or school shall count as four of the six years. Without graduation from accredited schools each year of work accredited toward a degree counts for one-half year.

The qualifications for registration as engineer in training are graduation from an engineering college and endorsements as to good character.

One year of the six years' experience must be in responsible charge of engineering work. Civil engineers receive credit only for work done

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COVER CAPTION

From the jaws of this hydraulic press capable of exerting a total pressure of 3000 tons, a Bureau of Mines laboratory aide has taken a freshly-compacted bar of titanium, one of the rare metals produced in the Bureau's pilot plant at Boulder City, Nevada. In this form, titanium, which is only half as heavy as as steel, can be fabricated like other metals for use in structural work. (Bureau of Mines photo)

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With the Board

IT WAS WITH great pleasure that the Board of Directors recently voted Professor Sorensen an honorary member of the Association. This action, although a sincere attempt to express heartfelt gratitude to a great and good friend, seems inadequate as a means of expressing the appreciation and good wishes felt by all alumni. We know however, that Professor Sorensen will understand that this action bespeaks friendship and respect beyond the ability of any medium to convey fully.

* * * * *

Fred Schell told of plans that Fred Peterson is making for an Alumni field trip in May. The place to be visited had not been decided by deadline time, but perhaps by now you know. Our bet, based on the discussion, is that it will be a good trip.

Fred Schell also told of plans for the annual banquet and of his attempt to hold this at the Athenaeum. In the past the banquet chairman has been on the horns of a dilemma; either he holds it at the Athenaeum and has to reject some late applications for reservations, or he holds it at some remote and less desirable location and doesn't attract as many reservations as could be accommodated. It seems that perhaps the best solution is to hold it at the Athenaeum and reward the early applicants with tickets.

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By the time this appears the Annual Seminar will have been held and an experiment which now seems very attractive will have been tried. As a result we shall have some information on the desirability of providing a program for alumni wives. When Carl Tutschulte started to prepare a wives' program he wasn't fully convinced that it would be popular. As he got into his planning, however, he found that the wives who were asked were very enthusiastic in supporting and cooperating in the arrangement of such a program.

The Board of Directors and Seminar Committee would appreciate receiving your opinion of this experiment as an aid in guiding future Seminar Committees. A card to the Editor will do it.

H. K. F.

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under the direction of a Civil engineer legally qualified to practice. All applicants must be of good character and Civil engineers must be at least 25 years old.

Since engineers other than Civil engineers may practice engineering in California without registration one may well ask, "Should engineers register?" The number of applications received by the Board since September 19, 1947 as listed below, in round numbers, may serve to answer the question for some.

Number of applications for Professional engineering registration September 1947 to March 31, 1948:

Chemical	300
Electrical	750
Mechanical	1300
Petroleum	300

About 1,000 Civil engineers applied for registration during 1947 and the applications filed to date indicate the same number for 1948.

Civil engineers have been registering in California since the passing of the original Act in 1939. That act has been amended several times. The first amendment provided special registration for Civil engineers acting as structural engineers, and the last one, September 19, 1947, provided for registration of Chemical, Electrical, Mechanical, and Petroleum engineers.

Who is qualified for Registration? Obviously the first requirement is excellence of character.

The second is a proper knowledge of the fundamental sciences, and the mathematics that are the tools of the engineer.

The third is a conception of the principles of engineering in terms of the physical use and dimension parameter of the material and methods involved.

In evaluating these characteristics, it is obvious the many persons not engineers use engineering methods to a limited degree and are thereby often specialty technicians rather than engineers. So long as these men do not call themselves engineers they have no reason for registration, and by the same token should not per se consider a knowledge of codes as qualification for professional engineering registration.

Those who have operated under the registration act viz the Civil engineers have found the act good and it is the opinion of the writer that the engineers now registering will, as time passes, learn that much has been gained in fixing the standards of the engineering profession.

The writer is a member of the present Board of Registration, but the views expressed are solely his own individual opinions and should not be construed in any way as official Board regulations.

PERSONALS

1920

WILLIAM C. RENSHAW, formerly with the San Francisco Water Department's engineering organization, has recently been appointed water engineer for Inglewood, California.

1927

ROBERT B. VAILE JR., Ph.D. '36, is now employed in a supervisory capacity by the Armour Research Foundation, Chicago. From June 1941 to October 1945, Bob was on the staff of the Naval Ordnance Laboratory as chief of the Applications Subdivision of the Research Division, engaged in research and development of naval ordnance.

1930

HERBERT H. DEARDORFF, with the State Division of Highways, has recently been transferred from San Francisco to the Sacramento office of the Division.

WALTER C. MICHELS, Ph.D., has returned to Bryn Mawr College, where he is professor of physics. In 1941 and 1942, Michels was with the Naval Ordnance Laboratory. After September 1942 he entered the office of the Chief of Naval Operations, first as a civilian and later as a naval officer, serving a short term with a Naval Technical Mission to Japan.

1931

LUCAS A. ALDEN, Ph.D. '35, is assistant treasurer in International Trade, Shipping & Banking at W. R. Grace & Company, New York.

CHARLES K. LEWIS, M.S. '32, formerly with Morrison-Knudson Company, Inc., has accepted a position with Clingan and Fortier, Inc., San Francisco. Lewis has charge of engineering and the general supervision of the reinforcing and structural steel placing and erection operations of this firm.

CHARLES A. WILMOT, with the Ethyl Corp., was transferred to Baton Rouge, La., at the first of the year. Charles continues as a chemist.

1932

LYNN H. RUMBAUGH, Ph.D., is chief of the Research Department of the Naval Ordnance Laboratory in Washington, D. C. From October 1940 to December 1941 Rumbaugh was engaged in degaussing work at the NOL and then spent the major part of 1942 in the South