

# The History and Accomplishments of WRC/PVRC and Recognition of William Spraragen, The First Director of WRC

BY K. H. KOOPMAN

I would like to thank the PVRC Executive Committee for inviting me to present the fifth lecture in honor of Bernie Langer.\* It was my good fortune to know Bernie for a good many years, and I will always cherish his kind, gentle methods of teaching and explaining pressure vessel design. He was not only a superb engineer but a true gentleman.

At a meeting of the United Engineering Society—now the United Engineering Trustees, Inc.—held on November 19, 1914, a Fund, known as the Engineering Foundation, was established. This action was taken as the result of an offer of \$200,000 by Mr. Ambrose Swasey of Cleveland, Ohio, to a fund “devoted to the advancement of the engineering arts and sciences in all of their branches to the greatest good of the Engineering Profession and to the benefit of mankind.” Later gifts brought Mr. Swasey’s total contributions to over \$800,000. The total endowment is currently in excess of \$5,000,000. The endowment fund income is administered by representatives of the five major engineering societies and of the United Engineering Trustees, Inc.

The Engineering Foundation, after this early establishment, began in a very conservative fashion as a department of the United Engineering Society, which in turn was supported by the then three principal engineering societies associated with Mining, Mechanical, and Electrical Engi-

neering. The Civil and Chemical engineers joined in support at a later date. The Engineering Foundation worked closely with the newly-formed National Research Council of the National Academy of Sciences. It then began its policy of providing “seed money” to stimulate cooperation by American Industry in supporting engineering research of value to the whole community.

The organized research in the welding field antedates the organization of the American Welding Society in 1919. As a



*Kenneth H. Koopman, Executive Director of the Welding Research Council, 1960-1981.*

matter of fact, the Society is an outgrowth of the work of the Welding Research Committee of the Emergency Fleet Corporation and the National Council of Defense in World War I, in 1916.

When the American Welding Society was organized in 1919, it created a

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*K. H. KOOPMAN was Executive Director, Welding Research Council, New York, New York, at the time of his presentation of this address.*

Research Department known as the American Bureau of Welding. William Spraragen was appointed Secretary of the organization, but it could not raise enough funds to succeed. As a result, Mr. Spraragen returned to teaching mathematics at the University of Washington in Seattle for a year.

Dr. Comfort A. Adams became Chairman of the Engineering Division of the National Research Council, and offered Mr. Spraragen a position as Secretary of that Division in July 1920, with an opportunity to revive the American Bureau of Welding. It was reorganized in New York City under the joint auspices of the National Research Council and the American Welding Society, subject to the regulations of the National Research Council.

The many accomplishments of the American Bureau of Welding from 1920 to 1933 are a matter of record. In 1933, the National Research Council suffered loss of income and requested the American Welding Society to take over the American Bureau of Welding and operate it as a Research Department of the Society. The principal officers were Dr. Comfort A. Adams, Chairman, and William Spraragen, Secretary.

In April 1935, recognizing that it would be wasteful in time, talent, and money if each organization endeavored to set up its own research program in the welding field, the American Welding Society and the American Institute of Electrical Engineers requested The Engineering Foundation to organize the WELDING RESEARCH COMMITTEE.

Later in 1935, The Engineering Foundation followed through in creating the Welding Research Committee and contributed \$5,000 a year until the Welding Research Committee could establish itself and deserve the support of industry. The Committee was set up under The Engineering Foundation with the joint spon-

*\*Bernard F. Langer (1905-1977) graduated from Stanford University in 1926, worked for Westinghouse Electric Company until his 1970 retirement, and then consulted for Westinghouse through 1976. He specialized in design and stress analysis and was awarded the Westinghouse Order of Merit and 26 patents. Mr. Langer also authored 25 technical papers, many in the design of nuclear power plants. He was very active in ASME and PVRC for some 35 years.*





