



A handwritten signature in black ink on a white background. The signature is written in a cursive style and appears to read "James H. Clavin".

Kenneth A. Roe

1916-1991

By Robert Plunkett

KENNETH A. ROE, chairman of the board, Burns and Roe Enterprises, Inc., died on June 3, 1991, at the age of seventy-five.

He was a man of wide interests and boundless energy, but his activities as an engineer and his services to his profession were of particular interest to the engineering community. These contributions have been recognized in many ways. He was elected to the National Academy of Engineering in 1978. He was awarded honorary membership in the American Society of Mechanical Engineers (ASME) and the American Society for Engineering Education and was a fellow of the American Association for the Advancement of Science, the American Institute of Chemical Engineers, the Institute of Engineers of Australia, and the Institute of Mechanical Engineers of Great Britain. He received honorary doctorates from Manhattan College and Stevens Institute of Technology. In addition to many awards and medals from a wide spectrum of engineering societies and universities, his achievements were particularly recognized by two important intersociety awards, the John Fritz Medal, given for notable scientific or industrial achievement, and the Hoover Medal, given for great, unselfish, nontechnical services by an engineer.

Ken Roe was born in Perry, New York, on January 31, 1916. He received a B.A. from Columbia College in 1938 and a B.S. in chemical engineering from the Massachusetts Institute of Technology in 1941. He was then employed as a mechanical engineer

by Burns and Roe, an architect-engineering company that his father cofounded in 1932. He joined the Navy at the outbreak of the war, worked as a naval architect after receiving a certificate in naval architecture from the postgraduate school of the U.S. Naval Academy, and was promoted to the rank of lieutenant commander for his work as officer in charge of building gun turrets on battleships and cruisers at the Philadelphia Navy Yard. In addition, he was responsible for the construction of diving tanks used to train Navy divers, and he supervised the conversion of an Italian liner into a U.S. Navy troopship. He continued his studies while in the Navy and received an M.S. in mechanical engineering from the University of Pennsylvania in 1946.

In 1945 Ken rejoined Burns and Roe and spent the rest of his professional career there employed successively as an engineer, project engineer, vice-president, and executive vice-president. He became president in 1963 and chairman of the board in 1971.

Ken Roe was particularly interested in power generation and was always in the forefront of developing technologies. Under his direction, Burns and Roe has been responsible for the design, engineering, and construction of some of the world's largest and most innovative power generating plants, both fossil-fueled and nuclear. He was personally involved in building the first demonstration nuclear power plant at Shippingport, Pennsylvania, and his company had a major role in the design and construction of the Oyster Creek Nuclear Power Station for Jersey Central Power and Light as well as the Clinch River liquid-metal fast breeder reactor demonstration plant in Oak Ridge, Tennessee. Burns and Roe is actively involved in developing the practical applications of advanced energy technology such as synthetic fuels, magnetohydrodynamics, fuel cells, solar energy conversion, and fusion power. In addition to extensive work in the power generation field, Ken Roe and his company have worked on the Mercury and Gemini projects of the U.S. space program, the design and construction of process plants and commercial buildings, and the application of new technologies in environmental engineering.

Ken Roe was a man of great energy and enthusiasm. He

frequently and openly displayed his pride in the achievements of his family, the reputation of his country, the performance of his company, and the prestige of his profession. He felt very strongly that people, like himself, who have benefited from the practice of a profession have an obligation to advance that profession and make education for it readily available to all who can benefit from it. He was active in a number of different engineering and technical societies. He served the ASME in many offices and was its president from 1971 to 1972. Those of us who had the pleasure of working with him during this period can vouch for the importance of his leadership in making decisions and getting things done. As one small example, I remember a breakfast meeting of the members of the executive committee of ASME during which he persuaded them to fund the first congressional fellowship sponsored by an engineering society. His service as president so convinced him of the importance of communication with the general public that in 1972 he endowed ASME's Ralph Coats Roe Medal, named for his father and given annually to an individual "for significant contribution to a better public understanding and appreciation of the engineer's worth to contemporary society."

Typical of the breadth of his vision, he specified that the award be made independently of the profession or society affiliation of the recipient. He was the first chairman of the ASME Foundation, which was established in 1986 to raise funds to broaden the research and educational activities of ASME.

Delon Hampton caught the spirit of the man in some remarks presented at a recent meeting of the American Society of Civil Engineers. In commenting on Ken's role as a founding father of the Civil Engineering Research Foundation, he noted that Ken had a deep appreciation of the importance of professional engineering societies both to the individual engineer and to society in general. Dr. Hampton pointed out that Ken Roe's legacy was to remind us of the very essence of engineering through his ability to reconcile the possible with the necessary and to meet the challenge of providing for and sustaining the human spirit by creating a better quality of life.

He was a strong believer in the importance of unity in the

engineering profession. As an officer of ASME, he encouraged cooperative efforts with other engineering societies both in this country and abroad. While he was chairman of the Engineers Joint Council in 1978, he concluded that engineering unity needed an organization with a stronger mandate from its constituency. He set to work with other like-minded engineering society officers, and in 1980 he participated in the creation of the American Association of Engineering Societies and became the founding chairman of its board of governors.

Ken was a cheerleader for engineering education. Having received his own education from four different institutions, he recognized the importance of variety. The ASME recognized his contributions by awarding him the Edwin F. Church Medal for eminent service in increasing the value of mechanical engineering education. He was a member of the board of trustees of the Stevens Institute of Technology and was a recipient of the Stevens Award. A member of Columbia University's Engineering Council and chairman of its engineering fund, he received both the Carl Kaan Award and the Pupin Medal. As a member of the board of overseers of the University of Pennsylvania School of Engineering, he received the school's D. Robert Yarnell Award. Ken served as vice-chairman of the board of trustees of Manhattan College and chairman of its Council on Engineering Affairs and its Committee on Planning and Development, and he was nominated for the Distinguished Service in Trusteeship Award.

Clearly he appreciated the importance of supporting engineering education in tangible and intangible ways. He contributed generously to a number of universities and served on their visiting committees. In addition, he traveled extensively throughout the United States to meet with and address student groups.

His achievements, and his service to his country and his profession, speak for themselves. What a simple listing of them cannot do is convey the effect that his enthusiasm and example had in initiating and sustaining projects that advanced the engineering profession. He did much more than point out what should be done for the benefit of engineers and engineering; he did it.

