



Robert A. Bowman

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1907-1977

By John R. Kiely

Robert Alexander Bowman died November 29, 1977, at Fort Collins, Colorado. He had retired from Bechtel as Senior Vice-President and Director in 1973, after more than four decades of distinguished engineering accomplishments in the fields of heat transfer and power generation. In particular, he had a leading role in the peaceful development of nuclear power.

Bob Bowman was born in Huntington, Indiana, on December 29, 1907. He attended high school in Rogers, Arkansas, and the College of Engineering at the University of Arkansas, where he received his Bachelor of Science degree in mechanical engineering in 1929. In his senior year he was president of Tau Beta Pi and the General Engineering Society.

Upon graduation, he joined the Westinghouse Research Laboratories in East Pittsburgh, where he conducted performance tests on experimental blowers and pumps with special emphasis on ventilation of electrical machinery. In 1931 he transferred to the South Philadelphia Works of Westinghouse, where he continued work on flow and heat transfer problems. In 1933 he was transferred to the heat transfer section, where he remained for fifteen years, becoming Manager of the Condenser Engineering Division in 1940. Through his later years, Bob was remembered and admired by a large number of engineering and operating personnel in the electric generating utilities as a man who had an innate instinct for

analyzing and solving operating problems in heat transfer equipment and rotating machinery.

In 1948 Bob Bowman was called on to serve as the first Manager of Engineering of the Westinghouse Atomic Power Division at Bettis Field and commenced building the organization that developed the light water reactor technology for the Naval Reactors Program. This technology ultimately became the basic technology for the U.S. power reactor program and eventually established the light water reactor as the world standard. By the time Bob left Westinghouse three years later to join Bechtel, the first land-based prototype light water reactor was nearing completion at Arco, Idaho; the first ship-based unit was committed and under construction; and the Engineering Department was well established. In later years there were scores of technical people who had served under Bob at Bettis and had spread out through the whole nuclear industry and who looked upon Bob as a fine leader, teacher, mentor, and, above all, a friend.

Bob Bowman joined Bechtel in 1951 as Chief Mechanical Engineer of the Power and Industrial Division, in charge of mechanical engineering and station layout. In 1953 he became Manager of Division Engineering with responsibility for a wide range of nuclear and fossil fueled generating stations, and industrial and metallurgical plants. It was also in 1953 that Bechtel became involved in nuclear power work through a cooperative study of nuclear power with the Pacific Gas and Electric Company. This study led to the association with several other utilities in the Nuclear Power Group and, in turn, to the Dresden Nuclear Power Plant committed in 1955 and completed four and one-half years later.

In 1958 he was elected a corporate Vice-President and became Division Manager in 1966. The following year he was elected a Director and in 1971 was appointed a Senior Vice-President. By the time of his retirement, in 1973, Bob had been involved in the engineering and/or construction of over sixty nuclear power units and was considered one of the foremost experts in this field.

Bob Bowman was much honored for his professional accomplishments. He was a Fellow in the American Society of Me

chanical Engineers and a Member Emeritus and Fellow of the American Nuclear Society. He was elected a Member of the National Academy of Engineering in 1970. Among the honors he received were the American Society of Mechanical Engineers' George Westinghouse Gold Medal for "distinguished service in the power field" and "leadership in the development of economic power generation stations" in 1965. In 1966 he was installed in the Hall of Fame in Engineering at the University of Arkansas and in 1969 also received that institution's highest honor, the Distinguished Alumnus Award.

Bob Bowman held five patents in the field of heat transfer and was described by one of his colleagues as "one of the most knowledgeable men in the country in the whole area of thermodynamics and power cycles. If anyone came up with a new way of doing something, it went to Bob. With his vast knowledge he could sense immediately if we were on the right track. A lot of the techniques we use today wouldn't have been possible without Bob."