IN MEMORIAM

HUGH ALAN WALLS

Hugh Alan Walls was born the eldest of nine children of Dr. William S. Walls and Genevieve Price Walls on February 14, 1934, in Willsboro, Pennsylvania. At the age of two the family moved to Bartlesville, Oklahoma where his father, a Ph.D. from Princeton, worked as a chemical engineer for Phillips Petroleum Company.

Hugh graduated from high school as a member of the honor roll in 1952, a member of the Honor Society, and also received the Danforth Foundation award for scholastic excellence. During those years he was an active member of the Boy Scouts and attained the Eagle Scout award, as well as the "Order of the Arrow" for service to the organization.

Hugh attended the University of Oklahoma, working towards a total of three degrees in Chemical Engineering, a Bachelor of Science in 1957, a Master of Science in 1958 and the Doctor of Philosophy in 1963. As a student at the University, he held a University Fellowship for the years 1952-53, a University Oil Producers Fellowship for 1956-57, and the Ohio Oil Company Fellowship for the years 1957-58. At the end of his university tenure, Hugh became a registered professional engineer in the state of Oklahoma.

During that time he was a member of the Reserve Officer Training Corps and was commissioned in 1957. At that time he was named the "Distinguished Military Graduate" and then went on to serve in the Army for two years at the Maryland Proving Grounds, where he was promoted to Captain.

Hugh joined the faculty of the Mechanical Engineering Department of The University of Texas at Austin in the fall of 1963 as an Assistant Professor. He was promoted to the rank of Associate Professor in 1968 and at the same time was admitted to full membership in the Graduate Faculty. He was active in Sigma Xi and was their

Treasurer during 1969 and Vice-President in 1970. He also served as Graduate Advisor for the department for the year 1969. The promotion to Professor was granted to Hugh in 1973.

It was in 1973 that Hugh's interest in administrative duties started to come to fruition when he was assigned to serve as Assistant Provost and Associate Director for Analysis and Planning for the University. He was a major contributor to these offices in 1976 and 1977, when he coordinated the University's effort in a major sex discrimination case.

In 1980 Hugh was named Director of the Office of Planning Services. Later, in 1986 and 1987, he directed The University of Texas at Austin's Self-Study for Reaffirmation of Accreditation by the Southern Association of Colleges. In 1986 Hugh was appointed as Assistant to the Executive Vice President, Dr. G. J. Fonken, and became Vice Provost in 1987. As the Special Assistant to the Provost he served to coordinate the activities related to the University's Strategic Plan for those applicable years.

In 1989, Hugh's health began to seriously fail, and he returned to Mechanical Engineering faculty duties. He requested a medical leave in 1990. Hugh passed away on June 9, 1991.

Hugh's survivors include his wife, Nita, his children, Alan, Kent, Kevin, Linda and Lisa. Also, he is survived by his mother, four brothers, three sisters, and twelve grandchildren.

Hugh's contributions to the University were profound, particularly in the area of administration. At the same time he never neglected his commitment to good teaching and always taught at least one course for the department. His performance as an academician and scholar continued to the extent he could while performing his administrative duties. He will be remembered for his thoroughness, kindness, and humor. Indeed, one of his favorite class-time comments was that "the speed of light is 1.8 times ten to the twelfth furlongs per fortnight."

Robert M. Berdahl, President
The University of Texas at Austin

H. Paul Kelley, Secretary
The General Faculty

This Memorial Resolution was prepared by a special committee consisting of Professors John P. Stark (Chair), George B. Thurston, and Grady H. Rylander.

PRINCIPAL PUBLICATIONS

"Determination of Self-Diffusion Coefficients Using the Radial Distribution Function," Metallurgical Transactions 10A, pp. 1365-1370 (1979) (with A. L. Hines).

"Densities of Binary Mercury-Rich Amalgams of Cadmium and Zinc," Journal of Chemical and Engineering Data 9, pp. 130-132 (1964) (with W. R. Upthegrove).

"Theory of Liquid Diffusion Phenomena," Acta Metallurgica 12, pp. 461-471 (1964) (with W. R. Upthegrove).

"Thermodynamic Activities of Cadmium and Zinc in Binary Mercury-Rich Amalgams," Journal of Chemical and Engineering Data 9, pp. 184-187 (1964) (with W. R. Upthegrove).

"Liquid Metals Diffusion: A Modified Shear Cell and Mercury Diffusion Measurements," Trans. of the Metallurgical Society of the AIMEA 242, pp. 2177-2184 (1968) (with E. F. Broome).

"Two Phase Flow in Spray Coolers," AECD-TR-68-127, Arnold Engineering Development Center, Ad-671 118, (June, 1968) (with J.P. Lamb et al.).

"Self-Diffusion Measurements in Liquid Gallium," Trans. of the Metallurgical Society of the AIME 245, pp. 739-741 (1969) (with E.F. Broome).

"Diffusion Measurements in Liquid Metals," in Volume IV, Physicochemical Measurements in Metals Research, R.A. Rapp, ed., Wiley-Interscience Publishers, pp. 459-492 (1970).

"Nucleate Pool Boiling of Freon 113 at Reduced Gravity Levels," American Society of Mechanical Engineers, Paper No. 70-HT-17, 1970 (with J. W. Littles). Presented at the Fluids Engineering, Heat Transfer, and Lubrication Conference, Detroit, May, 1970.

"A Numerical Study of Time-Dependent Rotating Flow in a Cylindrical Container at Low and Moderate Reynolds Numbers," Proceedings of the Second International Conference on Numerical Methods in Fluid Dynamics, (Lecture Notes in Physics 8, pp. 377-387, Springer-Verlag, 1971) (with W. R. Briley).

Pressure-Enthalpy Charts for Selected Engineering Substances plus Psychrometric Charts, compiled and arranged by Byron E. Short, Harry L. Kent, and Hugh A. Walls. Gulf Publishing Company, Houston, Texas, 1970.

"Density of Liquid Thallium," Metallurgical Transactions 4, pp. 1419-1421, 1973 (with J. Martinez).

"Self-Diffusion in Liquid Metals," J. Metals 16, p. 79 (1964) (Abstract). Presented at the Annual Meeting of the Metallurgical Society, American Institute of Mining, Metallurgical, and Petroleum Engineers, New York, February, 1964 (with W. R. Upthegrove).

"Solute Self-Diffusion Coefficients in Binary Mercury-Rich Amalgams of Cadmium and Zinc," J. Metals 17, p. 112 (1965) (Abstract). Presented at the Annual Meeting of the Metallurgical Society, American Institute of Mining, Metallurgical, and Petroleum Engineers, Chicago, February, 1965 (with W. R. Upthegrove).

"Liquid Metals Structure and Self-Diffusion," J. Metals 18, p. 118 (1966) (Abstract). Presented at the Annual Meeting of the Metallurgical Society, American Institute of Mining, Metallurgical and Petroleum Engineers, New York, February, 1966.

"Structural Parameters for Elemental Liquid Metals," J. Metals 19, p. 68 (1967) (Abstract). Presented at the Annual Meeting of the Metallurgical Society, American Institute of Mining, Metallurgical and Petroleum Engineers, Los Angeles, February, 1967 (with E. F. Broome).