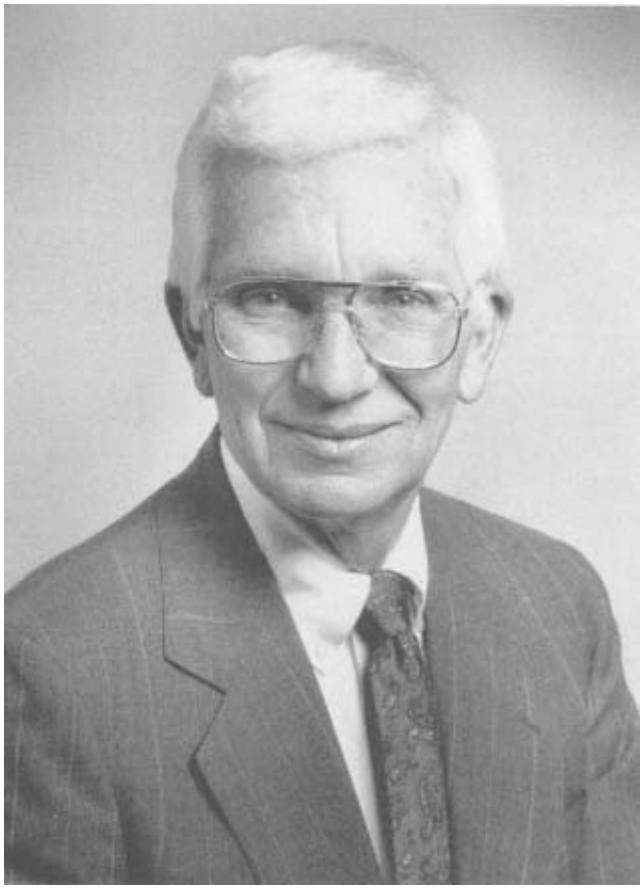

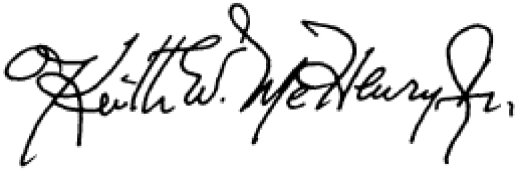

Keith W. McHenry, Jr.

1928-1994

By Richard C. Alkire

Keith W. Mchenry, retired senior vice-president of technology for Amoco Corporation, died on January 21, 1994, at the age of sixty-five. Keith, who spent his entire professional career with Amoco Company and its affiliates, was a respected and progressive manager as well as a successful researcher in the area of catalysis. His research accomplishments included the development and commercialization of the world's most advanced residual oil hydroprocessor.

Keith was born in Champaign, Illinois, and raised in West Allis, Wisconsin. He received his B.S. degree in chemical engineering from the University of Illinois in 1951 and his Ph.D. in chemical engineering from Princeton University in 1958. He was most recently a Chicago resident.

Keith joined Amoco in 1955 as an assistant project chemical engineer in the Research and Development Department at Whiting, Indiana. While in this position, Keith made significant contributions to Amoco's research in the catalytic cracking and demetalation of reduced crudes. He was promoted to group leader in 1958 and supervised several discoveries, which led to Amoco patents, some of which dramatically increased the yield of gasoline from crude oil. In 1962 Keith became project manager and was promoted to research associate in 1966. In the early 1960s Keith led influential research on zeolite cracking catalyst technology. By 1967 Keith was named director of process research

and was responsible for all research in catalytic cracking, thermal processing, and alkylation. Under his leadership, his group developed a reduced crude catalytic desulfurization process, which was the forerunner of a process commercialized by Amoco in the 1980s. In the early 1970s as director of process and analytical research, Keith managed the research/manufacturing interface and rapidly moved process and catalyst improvements from the laboratory to the refinery. Most notably, through his leadership, Amoco Oil was the first to introduce lead-free regular and premium gasolines nationwide.

In 1974 Keith moved to Amoco's Research and Development Department in Naperville, Illinois, first as manager of process research and one year later as vice-president. During his fifteen years in this position, Keith oversaw a number of innovations, including the development of long-lasting synthetic oils for automobiles, the development and successful operation of proprietary catalyst system and process configuration for upgrading vacuum residual oils, and developments that led to refinery units for hydroprocessing catalytic cracking feedstocks and resid blends.

As a research and development director and technology executive, Keith was an Amoco representative to the Industrial Research Institute, Inc. (IRI) for eighteen years, during which he served on its board for eight years and was president during 1988 and 1989. Before he became president of IRI, he chaired the institute's University Relations Committee, chaired the program committee for the institute's fiftieth Anniversary Meeting, and led an advisory group on moving IRI headquarters to Washington, D.C.

In 1989 Keith was elected senior vice-president of technology for Amoco. In this position he coordinated the research activities of Amoco and its operating companies and directed the development of new technologies. Keith had a wide-ranging vision and was involved in helping Amoco move ahead to explore alternatives for the time when oil would no longer be its main source of business. In addition, Keith was heavily involved in helping develop lower-pollution fuels, working particularly with Amoco's waste management subsidiary. Keith retired from Amoco in April 1993.

Keith was elected to the National Academy of Engineering (NAE) in 1982. Since that time he served on a number of committees, including the Committee on Membership, the Industry Panel of the Study on International Cooperation in Engineering, the Chemical/Petroleum Engineering Peer Committee, and the Committee on Forces Affecting the U.S. Academic Engineering Research Enterprise. Keith served on the National Research Council Commission on Engineering and Technical Systems (CETS) Committee on Strategic Petroleum Reserve and the joint CETS and Commission on Physical Sciences, Mathematics, and Applications (CPSMA) Committee on Chemical Engineering Frontiers: Research Needs and Opportunities. He also chaired the joint CETS and CPSMA Panel on Energy and Natural Resources Processing between 1985 and 1988.

Keith was a member of the American Chemical Society, the American Association for the Advancement of Science, the American Petroleum Institute, and the Catalysis Society, and he was selected as a fellow to the American Institute of Chemical Engineers. In 1988 Keith received the Award in Chemical Engineering Practice from the American Institute of Chemical Engineers for his contributions to the petroleum industry.

Keith always remained visible to engineers outside of Amoco, as was evidenced by the numerous invitations he received as a distinguished lecturer. In 1981 he was the Charles D. Hurd Lecturer for the Department of Chemistry at Northwestern University; in 1983 he presented the Thiele Lectures in Chemical Engineering for the Department of Fuels Engineering at the University of Utah; and in 1987 he was invited as the Gerster Memorial Lecturer for the Department of Chemical Engineering at the University of Delaware. Keith was heavily involved in furthering industrial-academic relations. Not only was he a frequent speaker on engineering education, but he served on advisory boards for Princeton University, the University of Delaware, and the University of Illinois at both Urbana-Champaign and Chicago. Keith championed the University of Chicago School Mathematics Program, which showed his concern with science and mathematics education down to

the elementary level. He also was a driving force in establishing the University of Delaware's Center for Catalytic Science and Technology, whose graduates are familiarized with industrial goals. Keith was convinced of the need to provide strong engineering education, and he acted on these convictions. He wrote, "The future of American industry—and the future of the nation—will depend on our success in educating the people we must have to develop and implement new technology in an increasingly technological world."

Keith McHenry had an impact on chemical engineering from a variety of dimensions. He was an influential researcher, a respected leader of Amoco Oil, and an effective advocate of close industry-university relations. Keith also had an impact on people, and he will be remembered with respect as a straightforward, honest person who cared deeply for family, friends, and colleagues.