



*John H. Ludwig*

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1913-1995

By Ernest F. Gloyna

John H. Ludwig, engineer, scientist, scholar, designer, environmental pathfinder, and orchestrator of national policy, died on February 17, 1995. He was buried at Arlington National Cemetery with full military honors.

Elected to the National Academy of Engineering in 1971 as an engineer/scientist, John was a uniquely qualified professional. He initiated key solutions for many of the vexing problems associated with both traditional engineering design and rapidly changing environmental challenges.

John received his B.S. and M.S. degrees in civil engineering from the University of California, Berkeley (1934), and the University of Colorado, Boulder (1941), respectively, and his M.S. and doctor of science degrees in industrial health from Harvard School of Public Health (1956 to 1957). He was honored by membership in both Tau Beta Pi and Phi Beta Kappa. He obtained military training while an officer in the U.S. Army Air Corps, studying meteorology at New York University (1943 to 1944) and military government at the University of Virginia (February to April, 1945).

From 1935 to 1943, John's employment and first specialty assignments included the Metropolitan Water District, Los Angeles, California, construction engineer; the U.S. Bureau of Reclamation, structural/hydraulics; and the U.S. Corps of Engineers, hydraulic structures.

During World War II, John served as a meteorologist in Greenland and as a military government officer in Korea.

The postwar era brought on a new level of professionalism. As chief of the project design section of the Corps of Engineers, Sacramento District, California, from 1946 to 1949, John supervised sixty engineers and draftsmen. He exercised major influence on both hydraulic and structural design of the Pine Flat Dam, Folsom Dam, and Isabella Dam. From 1949 to 1951 John became a partner in Ludwig Brothers Engineering, Pasadena, California. This experience in applying engineering design to environmental solutions changed John's professional perspective and initiated his desire to expand his knowledge to the management of complex scientific, technical, social, and political problems associated with emerging environmental programs.

From 1951 to 1955, to further his interest in melding professional experience with the issues surrounding an increasingly complex world, he became a commissioned officer in the U.S. Public Health Service (USPHS) and accepted an appointment as special assistant to the division chief of waste-supply/water-pollution control, USPHS, Washington, D.C. This assignment provided an intimate and effective relationship with governmental institutions. The application of engineering and scientific principles to forward planning became a model, and a new era of environmental and urban planning was initiated. Concurrently, as a Department of Health, Education, and Welfare (HEW) alternate to the President's Committee on Weather Modification, John gained a new perspective on assessing societal issues.

From 1955 to 1968, concurrent with the establishment of the federal program in air pollution control and John's specialized education at Harvard, John provided leadership for new programs. He was directly responsible for development of the federal government's major air pollution research facility, spearheaded the cooperative research and development government/industry program, and catalyzed cooperative programs with major federal agencies. During this time, he was the director of the Federal Research and Development Program in Engineering and Physical Sciences in Cincinnati, Ohio.

From 1968 to 1972 as assistant commissioner for science and technology, National Air Pollution Control Administration/HEW, John exercised oversight of science and technology activities for HEW, other governmental agencies, and the private sector. He spearheaded the National Air Pollution Control Administration's program of (a) cooperative research and development with the private sector; (b) expanded research and development to bring the nation's resources to bear on environmental air pollution problems; and (c) numerous international activities. He was a U.S. delegate to the Air Management Research Group of the Organization for Economic Cooperation and Development, chairman of the Working Group on Air Pollution for the Economic Commission for Europe, a member of the World Health Organization's Expert Advisory Panel on Air Pollution, a member of NATO's Committee on the Challenges of Modern Society, and a responsible officer over a host of cooperative contracts with a multitude of countries.

John retired July 1, 1972, after thirty-four years of federal service. However, as a private consultant, he continued to provide valuable services to his country, and in particular, he assisted in furthering the course of effective air pollution control.

He was a registered engineer in California and Oregon and a diplomate (specialty license) of the American Association of Environmental Engineers (AAEE).

He was an active member in the American Society of Civil Engineers, American Meteorological Society, Air Pollution Control Association, American Public Works Association, American Academy for the Advancement of Science, and several honorary societies. Service honors included the Commendation Medal, HEW (1963); Superior Service Award, HEW (1967); Gold Medal for Exceptional Service, Environmental Protection Agency (1971); and the Gordon Fair Award, AAEE (1973).

John's scholarly attention to detail, professionalism, and dedication to the welfare of mankind helped to expand the body of knowledge for the civil and environmental engineering profession. His more than ninety publications attest his varied and comprehensive technical experience.

He was a superb water resources engineer during his early career; he was directly responsible for the development of the federal government's major research facility in air pollution control; he initiated an advanced level of forward planning for the United States and other governmental entities; and he established long-ranging air pollution control policies.

His love of family, a wife and two sons, was paramount and this was reciprocated in every respect. His sons have followed his interest in scientific and engineering fields.

He will be remembered for his professionalism, leadership, compassion, wit, modesty, and generosity.

