



*Gordon G. Robeck*

# **GORDON G. ROBECK**

## **1923–1993**

WRITTEN BY JAMES M. SYMONS SUBMITTED BY THE NAE HOME  
SECRETARY

GORDON G. ROBECK, an internationally known expert in drinking water research and treatment, died on February 21, 1993. Gordon was born February 3, 1923, in Denver, Colorado. He earned a B.S. in civil engineering from the University of Wisconsin, Madison, in 1944 and an S.M. in sanitary engineering from the Massachusetts Institute of Technology in 1950.

Gordon spent his entire professional career in public service, working for the federal government. He joined the U.S. Public Health Service (PHS) in 1944 and remained there until 1974, rising to the rank of sanitary engineering director (navy captain). From 1970 to 1974 he was detailed from the PHS to the U.S. Environmental Protection Agency (EPA). He resigned from the PHS in 1974 and joined the EPA, where he worked until retirement in 1985. When he retired, he was a member of the Senior Executive Service.

Gordon's major professional affiliation was the American Water Works Association (AWWA). He worked through the chairs of the Water Quality Division, becoming chairman of the division in 1970. He was then appointed the liaison member of the Technical and Professional Research Committee of the Water Quality Division and was its vice-chairman. Later (1986–1988) he was the liaison member of the Water Quality Division to the AWWA Research Foundation's Research Advisory Council. In addition, he served on many AWWA committees.

Although Gordon had many assignments in his early career with the PHS, he will be remembered for his accomplishments during the thirty years spent in Cincinnati, Ohio, doing research. He is unusual because he was able to make an impact both as a hands-on researcher and, later, as a research administrator. His early work on filtration, particularly the studies showing that viruses passed through a rapid granular filter at the same time that turbidity breakthrough occurs, resulted in information that is still used today to prevent the passage of pathogenic cysts and oocysts through drinking water treatment processes. Not content to focus on filtration exclusively, Gordon was studying activated carbon adsorption treatment of drinking water long before this topic became fashionable. His work showing the feasibility of such treatment paved the way for the intensive, current research effort on this subject. He was truly a research visionary.

In the late 1960s and early 1970s, the environmental efforts of the federal government were being reorganized. As the drinking water research program was being moved from organization to organization, it kept becoming smaller and smaller (some probably hoped it would disappear entirely), but Gordon kept insisting that the federal government had a role in the drinking water research arena. Finally, his ideas took root, and the trend was reversed.

When this program was placed in the U.S. Environmental Protection Agency and the Safe Drinking Water Act was passed, Gordon's administrative abilities were tested. Three federal laboratories were to be moved to Cincinnati, consolidated, and redirected to working on drinking water. Gordon skillfully managed this difficult transition such that when the formation of trihalomethanes during the chlorination of drinking water was discovered in 1974, he had a talented research team ready to undertake the solution to this difficult problem. In the late 1970s and early 1980s, "Gordon's Gang" was the most productive and credible drinking water research team in the world. When any drinking water problem came up, the solution was "call Gordon, he'll know," and he did, or "get Gordon to come and meet with us," and he would. The momentum he developed in his team was so great that today his former group

is still making significant contributions to the field, an important legacy.

To give a specific example of his impact, Gordon would often be asked about the quality of Cincinnati's drinking water. He would reply, "It's safe, but it could be safer." The local political establishment asked how the water could be safer, and Gordon outlined his recommendations. Although it took a while, his advice was followed, and currently Cincinnati has the most modern drinking water treatment plant in the United States. This is a fitting monument to someone who dedicated his entire life to the cause of high-quality drinking water.

Gordon was elected to the National Academy of Engineering in 1980, the first engineer elected from the Environmental Protection Agency.

Gordon's participation in National Research Council activities included the following: membership on the Water Science and Technology Board from 1986 to 1989 and service on the board's Committee on Irrigation-Induced Water Quality Problems from 1987 to 1988 and on its Committee on Ground Water Recharge from 1991 to 1993.

Gordon received many awards; although most were from the AWWA, he was recognized by other organizations. From the AWWA, he received awards as coauthor of the best paper from three different divisions: the Purification Division (1963), the Resources Division (1965), and the Water Quality Division (1968, 1976, and 1977). In addition, he received the AWWA Publications Award for the best paper in AWWA twice (1964 and 1970), the AWWA Research Award (1970), the Medal for Outstanding Service to AWWA (1979), and the Abel Wolman Award of Excellence (1985). From the American Society of Civil Engineers Gordon was awarded the Walter L. Huber Civil Engineering Research Prize (1965). From the U.S. government, he was awarded the PHS Meritorious Service Medal (1971) and the EPA Gold Medal for Exceptional Service (1978). Gordon was recognized with an honorary doctor of science degree from the University of Cincinnati (1985) and a Distinguished Service Citation from the College of Engineering, University of Wisconsin, Madison (1986).

Among his many memberships, Gordon was an honorary member of the American Water Works Association and of the American Society of Civil Engineers. He was also a member of Chi Epsilon, Tau Beta Pi, and Sigma Xi.

Gordon was the author or coauthor of sixty-four publications in the water field. As noted above, several of these publications won awards because of their importance. At the time of his retirement from federal service, the American Water Works Association Research Foundation published a memorial volume of eighteen of his more significant papers. This indicates the quality of his publications.

In addition to being a devoted husband and a dedicated father, Gordon was a lifelong tennis player and singer. On Saturdays you would find him on the tennis court, and Sunday mornings he would be in the choir loft in church. Outside of work, his three passions were his family, his sport, and his church.

