Thurston E. Larson

1910–1984

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Dr. Thurston E. Larson, noted engineer and leader in water quality research, died on March 21, 1984, in Urbana, Illinois. He left behind a rich heritage of published research findings, major contributions to the field of water technology, and a research foundation.

Thurston Larson was born in Chicago, Illinois, on March 3, 1910. He earned a B.S. in chemical engineering in 1932 and a Ph.D. in sanitary chemistry in 1937 from the University of Illinois. He was a registered professional engineer in Illinois.

Dr. Larson's principal work was carried out for the Illinois State Water Survey, where he began his career as an assistant chemist in 1932. By 1937 he had risen to the position of chemist; he became head of the Chemistry Section in 1948. In 1956 he was appointed assistant chief of the Water Survey, a position he held until his retirement in 1977.

After retiring, he was awarded the title of assistant chief emeritus. Yet Dr. Larson's "first love" was research, and although he held an administrative position at the Water Survey after 1948, until he retired he continued to be active in bench-level research and to develop new water quality studies. As an administrator, he was instrumental in identifying and developing new programs for assessing the quality of the Illinois ground water and surface waters, programs that not
only depicted temporal changes in mineral constituents but also identified potential water quality problems.

From 1962 onward, Dr. Larson was also professor of environmental engineering in the Department of Civil Engineering at the University of Illinois. In that capacity he significantly enriched the department's graduate program in environmental engineering by presenting seminars, advising graduate students on research problems involving water chemistry, and serving on thesis committees.

Dr. Larson made numerous outstanding contributions to environmental engineering through his research in the areas of water quality assessment and control. He was one of the first to recognize the problems associated with the corrosion of water pipes and, as a result, was a pioneer in corrosion research. In fact, he was the first to recognize the measurement of nondestructive corrosion by polarization resistance. His research on the tuberculation phenomenon associated with the corrosion of metal pipes is particularly noteworthy. Thurston Larson also developed a method and apparatus that have been widely adopted in industry for the accurate and sensitive measurement of steam purity. Three of the four patents that he held were related to this measurement.

Dr. Larson's research interest was not limited to corrosion, however, but instead spanned several areas involving water quality considerations. He was active in developing analytical methods for improved sensitivity in measuring chemical constituents in water. He was also recognized for his research in water treatment processes—in particular, water softening processes—and in the use and measurement of various disinfectants that are applied to treat water supplies. His long and productive periods of active research are duly reported through his scholarly publications in technical literature.

Although he was an internationally recognized researcher, Dr. Larson was also a practitioner. Those responsible for water supply utilities and others in the water technology field frequently sought his advice in analyzing and solving water quality problems. From the beginning of his professional career,
he maintained a deep interest in the operation and management of water treatment and distribution systems. As a result, he was well aware of the problems, both technical and managerial, that confronted the operators and managers of water supply utilities.

This awareness resulted in his establishing the Annual Water Works Management Short Course in 1952. This program, which has been held annually at the University of Illinois Allerton Park Conference Center since 1952, was the first of its kind. Dr. Larson served as its general chairman for many years.

Thurston Larson was perhaps most prominent as a professional leader in the American Water Works Association (AWWA). Within AWWA's Illinois Section, he chaired numerous committees and held many offices, both before and after being elected chairman of the section in 1959. At the national level, he was on the board of directors and for many years was chairman of the association's research committee. He represented AWWA on the Standard Methods for the Examination of Water and Wastewater Committee; during his tenure, the committee published the tenth, eleventh, and twelfth editions of \textit{Standard Methods for the Examination of Water and Wastewater}.

In 1970 Dr. Larson was elected national president of AWWA. He was instrumental in establishing the AWWA Research Foundation and served on its board of trustees for many years; the foundation continues to have an active and prominent role in sponsoring water quality research. AWWA honored Dr. Larson with a number of awards—the Goodell Prize (1957), the George Warren Fuller Award (1961), the Diven Medal for outstanding service (1966), the Research Award (1972), and an honorary membership award (1974).

Thurston Larson was also prominent in the affairs of the American Chemical Society (ACS) and its Division of Environmental Chemistry (formerly the Division of Water, Air, and Waste Chemistry); he was chairman of the division for a number of years. In addition, he represented ACS on the
U.S. Public Health Service Drinking Water Standards Advisory Committee. In 1971 he received a citation from ACS's board of directors for his role as chairman of the twenty-six-member task force that developed the report, "Cleaning Our Environment—A Chemical Basis for Action." This report, which was translated into Arabic and Japanese, had a very positive impact during the environmental movement of the early 1970s.

Dr. Larson actively participated in the affairs of numerous other professional organizations through committee assignments and his publications. He was a fellow of the American Association for the Advancement of Science and the American Institute of Chemists, a diplomate of the American Academy of Environmental Engineers, and a member of the National Association of Corrosion Engineers, the Water Pollution Control Federation, the International Water Supply Association, the International Association on Water Pollution Research and Control, and the United Kingdom's Institution of Water Engineers and Scientists.

He was elected to the National Academy of Engineering in 1978 for his leadership in water supply research and those of his contributions to the field of environmental engineering that were related to water quality criteria and standards. Among his many activities was his participation as a member of various committees of the National Research Council. Dr. Larson was a member of the Subcommittee on Water Supplies of the Committee on Sanitary Engineering and the Environment from 1958 to 1964; chairman of the Panel on Public Water Supplies of the Committee on Water Quality Criteria in 1972; a member of the Committee on Nitrate Accumulation in 1971; a member of the Subcommittee on Special Ions of the Safe Drinking Water Committee from 1976 to 1977; and a member of the Committee on the Potomac River from 1976 to 1977.

Dr. Larson also actively participated in committees of the U.S. Public Health Service (USPHS) and the U.S. Environmental Protection Agency (EPA). From 1960 to 1966, he was
a member of the USPHS Environmental Science and Engineering Study Section; he was chairman of the section from 1963 through 1966. He was a member of the EPA Advisory Committee on Drinking Water Standards in 1973. In addition, he frequently served as a consultant on special matters to these two agencies and to the U.S. Army Environmental Hygiene Agency.

Dr. Larson married Veda E. Taylor in 1938. He is survived by his wife and two sons—Byron of Taipei, Taiwan, and Bruce of New York City.

Thurston Larson was widely admired—not only by his professional associates but also by a wide circle of practitioners in the water supply industry, people who recognized his leadership in achieving the high level of water quality this country continues to enjoy. He was blessed with a congenial personality, which led to his being liked, as well as admired.