



J. George Thon

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1908-1988

By Edgar J. Garbarini

J. George Thon, designer and constructor of major water, power, tunnel, and transit systems around the world, died on September 6, 1988, at the age of seventy-nine.

Elected to the National Academy of Engineering in April 1975, George was a dedicated professional known for his technical expertise and his willingness to contribute his time and effort to the improvement of engineering practices, both in the companies he worked for and in the larger technical community.

During his career, which stretched over five decades, George worked on more than 20 hydroelectric power plants, 33 dams of many types, 11 pumping plants, and 110 miles of tunnels. More than 8,000 megawatts of hydroelectric generating capacity plus the design and construction of mass transit systems from London to San Francisco were influenced by his design skills and management expertise.

George received his B.S. from the University of Lwow, Poland, in 1932 and his diploma in civil engineering from the Imperial College of Science and Technology, London, in 1939. Two years later he earned his M.S. from the University of London.

By that time, the world was embroiled in the second of its great wars, and George immediately set about contributing to the allies' war effort. As a design engineer with Sir

William Halcrow and Partners Consulting Engineers, Great Britain, he served as a consulting engineer on the Mulberry Artificial Harbor, used for the invasion of France. During his years with Halcrow, he also worked on extensions of the London subway and numerous hydroelectric projects.

In 1949 George moved to an area of the world with large, untapped hydroelectric potential—America's Pacific Northwest. As an hydraulic engineer with Pioneer Service and Engineering Company, he was responsible for the design of hydroelectric projects for the Northern State Power Company and the Umpqua River Development in Oregon.

George joined Bechtel in 1951 as a chief civil engineer of its Power Division. He was in charge of design for thermal electric plants, nuclear power plants, and heavy industrial plants such as Dresden Nuclear Plant, Riddle Nickel Smelter in Oregon, and the Port Everglades Steam Electrical Station. And as a Bechtel supervising structural engineer, he was in charge of civil and structural design of the Pittsburg and Gadsby Steam Electric Plants.

In 1959 George was a project civil engineer on the Morro Bay Steam Electric Plant in California; his technical paper on that project, coauthored with Pacific Gas & Electric's Gordon L. Coltrin, received the distinguished Thomas Fitch Rowland Prize from the American Society of Civil Engineers (ASCE).

In the 1960s George's work expanded beyond U.S. borders when he became the division manager of engineering and vice-president of Overseas Bechtel, Inc. Fluent in German and Polish, George also had a good grasp of Russian and French, which served him well in his new position. He was responsible for engineering hydroelectric projects around the world. Among his notable assignments was membership on the design review committee for the 5,250-megawatt Churchill Fall Hydroelectric Project, which at that time was the largest hydro undertaking in the Western Hemisphere.

During the 1960s George also oversaw the development and construction of several impressive transportation infra

structure projects, as governments around the world sought to create and improve facilities. George was responsible for important phases of design on the Bay Area Rapid Transit (BART) system in San Francisco; work on the Washington Metropolitan Area Transit Authority's METRO in the District of Columbia; and transit systems in Caracas, Venezuela, and Sao Paulo, Brazil. He also worked on airports in Hilo and Keahole, Hawaii, and in Amman, Jordan.

George's skills in hydroelectric and transportation projects earned him the respect and admiration of his colleagues. He was known for his extensive experience in the design and construction of rock and soft-ground tunnels and the underground construction of transit stations and hydroelectric power plants.

With a temporary warming of relations between the United States and the Soviet Union in the early 1970s, George with his overseas experience and Russian-speaking abilities was asked to coordinate Bechtel's activities in the Soviet Union. He twice visited the USSR, touring many hydroelectric facilities before further shifting of political tides precluded continued work in that country.

George became an executive consultant and member of the senior technical staff of Bechtel's Hydro & Community Facilities Division in the mid-1970s. As with all his duties, he performed them with skill, dedication, and professionalism.

In 1978, after more than forty years of outstanding civil engineering work, George retired, but could not leave the engineering field far behind, occasionally offering his expertise on selected consulting assignments. He was a registered civil or structural engineer in twenty-two states and a chartered civil engineer in Great Britain.

Throughout his professional career, George garnered many awards besides the Fitch Rowland prize. He received the Tercer Lugar Prize in 1964 from the Pan-American Congress of Engineers for his paper on rapid transit systems for major cities. In 1971 ASCE again honored him with the Rickey Medal for a paper on the Salt River Project. C. H. Whalin

of the Salt River Project and John O'Hara of Bechtel were his coauthors. He was elected as a fellow in the ASCE in the United States and the Institution of Civil Engineers in the United Kingdom. George also served as a consultant to the National Science Foundation's Division of Advanced Productivity Research and Development.

Of his many publications, George was especially proud of papers he wrote for ASCE, *Water Power, Tunnels & Tunneling*, and the *Journal of the American Water Works Association*.

George was also concerned with the improvement of civil engineering and dedicated considerable time and attention toward that goal. He served on many ASCE committees including its Water Resources Coordinating Committee in the early 1960s, and he twice chaired its Power Division's Executive Committee, in 1964-1965 and again in 1972-1973.

George's dedication and expertise helped not only in the successful design and construction of projects around the world but also in furthering the knowledge base for the entire civil engineering discipline.

