

BIOGRAPHY

Miles C. Leverett, Ph.D. (1910-2001)

ANS President 1960-1961

Dr. Miles Leverett was a charter member of the American Nuclear Society (ANS), joining the Society in 1955. In 1960, he became the 6th president of the American Nuclear Society. He was recipient of ANS' Standards Service Award and was the first chairman for the ANS Standards Committee.

He started his career at Humble Oil (now Exxon-Mobil) in 1938 to do research on mixtures of fluids. A few years later, his boss disappeared, and later called him from an undisclosed location to enlist him for a "war project". As a result, he joined the Manhattan Project at the University of Chicago in May 1942.



Dr. Leverett was subsequently assigned to the Clinton Laboratories in Oak Ridge, Tennessee to form what was ultimately the Technical Division with responsibility for the engineering design of the air-cooled, graphite moderated X-10 reactor. The purpose of this pilot plant was to demonstrate the production of Pu239 from U238 in the reactor and the chemical separation of Pu239 from U238 and fission products. The information gained guided the scale-up to the plutonium production plants in Hanford, Washington. Dr. Leverett was also involved in the engineering aspects of remotely separating Pu239 from bulk quantities of irradiated natural uranium, and in isolating Ba140 from spent natural uranium from which radioactive lanthanum was extracted for ultimate use in the final design of the bomb.

Starting in 1943, when personnel from the University of Chicago were transferred to Oak Ridge, Eugene Wigner envisioned peaceful uses for atomic energy. Thus, from the beginning, the Technical Division at Oak Ridge National Lab (ORNL) under Miles Leverett expended considerable effort to design a Materials Testing Reactor (MTR), which was ultimately built in a location that eventually became the Idaho National Laboratory.

In 1948, after the Atomic Energy Commission decided to concentrate all reactor work at Argonne National Laboratory, Leverett in Oak Ridge, TN returned briefly to his previous job at Humble Oil. However, in 1949, he returned to ORNL to work on an Air Force initiative to develop nuclear-powered airplanes. Dr. Miles Leverett became the technical director of Fairchild, which was managing the Air Force program.

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In 1951, the Air Force replaced Fairchild with a number of contractors, and Leverett joined General Electric's program as the manager of development laboratories and relocated to Cincinnati. In 1961, President Kennedy cancelled the ANP project. Dr. Leverett stayed with General Electric, relocated to San Francisco and eventually retired in 1976.

Dr. Leverett was also a pioneer in organizing the nuclear engineering profession. He chaired the Nuclear Engineering Committee of the American Institute of Chemical Engineers (AIChE) after World War II.

In 1984, he was admitted into the National Academy of Engineering. His election citation read "For pioneering contributions to nuclear reactor designs and for a broad range of contributions to the enhancement of safety in the nuclear industry." He was also awarded several patents for his works.

He earned his BS in 1931 in chemical engineering from Kansas State, an MSE in 1932 in petroleum engineering from University of Oklahoma and a Sc.D. in chemical engineering from MIT in 1938.