



Floyd L. Keller, Jr.

FLOYD L. CULLER JR.

1923–2004

Elected in 1974

“For contributions to the development of successful nuclear power.”

BY JEFF BREHM

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FLOYD L. CULLER JR., president of the Electric Power Research Institute (EPRI) from 1978 to 1988, and deputy director at Oak Ridge National Laboratory (ORNL) from 1970 to 1977, died September 29, 2004, in San Juan Capistrano, California, at the age of 81.

Born in Washington, DC, on January 5, 1923, Floyd graduated from Frederick (Maryland) High School in 1940. After earning a bachelor’s degree in chemical engineering from Johns Hopkins University in 1943, he came to Oak Ridge, where he worked at the huge Y-12 Electromagnetic Separation Plant. “We learned fast,” Floyd told the *EPRI Journal* in an interview in 1978. “And I had a chance to do things while young that most people will never get to do.”

Floyd also met his wife of 52 years, Della Hopper, in Oak Ridge. She died in 1995.

In 1947, Floyd moved to ORNL as a design engineer for nuclear fuel recycling plants. He was one of the few people given the opportunity to move for a year throughout the labs, working where he wished and attending lectures by many of the outstanding scientists then at Oak Ridge. He became section chief and later director of the Chemical Technology Division.

Floyd managed the lab's development of solvent extraction and other processes for recovery of uranium, plutonium, and fission products from spent nuclear fuels. His team established nuclear fuel reprocessing techniques used worldwide. He served as lab associate director for nuclear technology in 1964 before being named laboratory deputy director. He also was acting laboratory director in 1973–74 after the retirement of Alvin Weinberg.

"Floyd is above all a man of excellent character, so wonderfully open, so enthusiastic, and basically so totally honest. There's no sham about him whatsoever," Weinberg said. "As you come to know him, you realize he's a man of extraordinary intellect and capable of keeping in mind a fantastic wealth of detail. Finally, he is a person of extraordinary practical sensibilities and sensitivities."

Often described as a "muddy boots type," Floyd enjoyed working directly with craftsmen and with the people of Oak Ridge. Active in the community, he chaired the Oak Ridge Regional Planning Commission, which was responsible for the alphabetical naming of the city's streets and helped govern the community before it was incorporated as "a civilian town," after its special wartime role in the development of the atom bomb.

Friends and colleagues enjoyed teasing Floyd about his talkative nature. "He talks a lot," one said. "He can talk your ears off." "Outsiders might get irritated because he seemed to be dominating a meeting, but it's just that he gets so enthusiastic and involved," Weinberg said. "And unlike a lot of other people, you realize he knows what he's talking about...he never talks nonsense."

Floyd succeeded EPRI founder Chauncey Starr as president of the institute on May 4, 1975. Some in the electric industry expressed concerns that his long affiliation with the nuclear field might make his role in overseeing the wide-ranging R&D at EPRI, then only in its fifth year, "a little tough going." But their fears were allayed by those who knew Floyd, especially Starr. "I had one general criterion [for my successor]," Starr said, laughing. "He could do everything I could do, only better!"

Floyd was asked why he chose to leave Oak Ridge after 33 years. "I love Oak Ridge, and I love the people there," he said. "But I decided that it would be fun to try something different...and [EPRI] is too marvelous an opportunity to work essentially with the same kind of people, the same spread of thought, with the same scope of R&D, and to do something very important in the energy business."

"All those who have known him and have worked with him testify to his warmth, his availability and human concern, his honesty, and his deep integrity as a person," the *EPRI Journal* wrote in the 1978 article introducing Floyd as the institute's new president. "What one hears is that he is not only deeply respected but also loved by his colleagues."

Floyd described his management style as "a very personal one...based on a mutual bond of personal respect, in which we know one another's strengths and weaknesses and can relate without being critical of one another, only of the things with which we are dealing. This way, hopefully, it is possible to work objectively on technical issues—even to disagree violently—without wounding one another or losing a lot of mutual respect."

Former EPRI colleague Ric Rudman said Floyd "was a unique blend of humanity, intellectual curiosity, integrity and vision." He "genuinely cared about every person he came into contact with. Who you were, where you came from and where you wanted to go, what excited you and what you had to share with him were all of interest to Floyd," Rudman said. "The breadth and depth of Floyd's intellectual curiosity was staggering, as was his mastery of a wide range of scientific and engineering disciplines.

"My favorite memory of Floyd is of a tour that EPRI's senior staff took of Battelle Memorial Institute's laboratories in the early 1980s. We walked through a handful of different labs including materials, genetic engineering, computer science, and bioengineering," Rudman recalled. "At each station, the same pattern would repeat itself. Floyd would listen intently to what the presenter had to say. Then he would ask a question that went well beyond what the presenter covered.

The presenter would inevitably say something to the effect of, 'That's a great question that I need to think about.'

"Floyd was more than just an accomplished scientist; at his core, he was a visionary engineer," Rudman added. "When he became EPRI's CEO, Floyd was immediately struck by the need to encourage electric utilities to apply many of the technologies that had been developed during EPRI's first five years. His goal was to demonstrate these technologies at a large enough scale on utility systems to show they were economically and technically viable. This decision helped to accelerate the commercialization of many technologies. It also served to broaden the utility industry's perspective on EPRI from simply an R&D think tank that produced useful scientific insights to a partner that produced valuable technological results.

"When Floyd retired, EPRI was larger, stronger, and better positioned to provide value to society, its member utilities, and the ratepayers they serve."

Floyd received the Department of Energy's Ernest O. Lawrence Memorial Award in 1965. He was elected to the National Academy of Engineering in 1974 and also was a fellow of the American Institute of Chemists (1968), the American Institute of Chemical Engineers (AIChE; 1981), and the American Association for the Advancement of Science (1981). He received the 1969 Atoms for Peace Award of the Ford Motor Company Fund, and in 1972 AIChE's Robert E. Wilson Award. In 1977 the American Nuclear Society gave him a special award for his outstanding work in chemical technology to recycle fuel and in 1980 honored him with its 25th Anniversary Exceptional Service Award.

Floyd was survived by his son Floyd Culler III and daughter-in-law Kirsten Culler, Irvine, California; granddaughters Amanda, Meredith, and Grace Culler, also of Irvine; sister Doris Summers, Frederick, Maryland; and brother Carl Culler, Fort Myers, Florida.

