

= Elda Emma Anderson =

Elda Emma Anderson (October 5 , 1899 ? April 17 , 1961) was an American physicist and health researcher . During World War II , she worked on the Manhattan Project at Princeton University and the Los Alamos Laboratory , where she prepared the first sample of pure uranium @-@ 235 at the laboratory . A graduate of the University of Wisconsin , she became professor of physics at Milwaukee @-@ Downer College in 1929 . After the war , she became interested in health physics . She worked in the Health Physics Division of the Oak Ridge National Laboratory , and established the professional certification agency known as the American Board of Health Physics .

= = Early life = =

Elda Emma Anderson was born in Green Lake , Wisconsin , on October 5 , 1899 , to Edwin A. Anderson (born in Wisconsin) and his wife , Lena (née Heller) (born in Germany) . Elda was one of three siblings . Although she was captivated by numbers at an early age , young Elda actually sought to become a kindergarten teacher . This would shift to an interest in science later , partially due to the influence of her older sister , who was an assistant chemistry instructor . As a whole , although her family had certain lofty expectations for their younger daughter , they all supported her in her academic endeavors . Anderson earned a Bachelor of Arts (AB) degree from Ripon College in 1922 , then a master of arts (AM) in physics from the University of Wisconsin in 1924 . From 1924 to 1927 , she taught at Estherville Junior College in Iowa , where she was the dean of physics , chemistry and mathematics . In 1929 , she became professor of physics at Milwaukee @-@ Downer College , then head of the physics department in 1934 .

= = Career = =

In 1941 Anderson completed her PhD at the University of Wisconsin , writing her thesis on " Low energy levels in the atomic spectra Co VII and Ni VIII " . Immediately after finishing her PhD , Anderson requested time off from her position at Milwaukee @-@ Downer College , in order to conduct war research related to the Manhattan Project at the Office of Scientific Research and Development at Princeton University . Not long after , Anderson was recruited to continue her work specifically at Los Alamos Laboratory . At her new location , Anderson studied basic fission parameters , including analyzing the time delays associated with the absorption and emission of neutrons . Such work often entailed working upwards of sixteen hours a day . Among other accomplishments at Los Alamos , Anderson prepared the first sample of pure uranium @-@ 235 at the laboratory . She lived in a dormitory . Being older than most of the other women in the dormitory at the age of fifty , she was put in charge . She often worked at night , wearing jeans and a plaid shirt ? not the usual attire for a woman at the time .

Following the war , in 1947 , Anderson left Los Alamos and returned to teaching at Milwaukee @-@ Downer College , but her involvement in atomic physics led to an interest in the health effects of radiation . In 1949 , she left teaching to begin a career in health physics . At the Health Physics Division of the Oak Ridge National Laboratory in Tennessee , which was only five years old when she joined , she became the first chief of education and training . She spent her career helping to establish the new training program in health physics , teaching and advising graduate fellows in health physics from 1949 .

Outside of necessary obligations , Anderson was also known for helping students with problems both academic and personal , lending helpful guidance . In some cases , Anderson was known to have given loans to students , as well share a drink in troubling times .

Anderson organized the first international course in her field in Stockholm in 1955 ; she organized similar courses in Belgium in 1957 and Mumbai in 1958 . She supported the establishment of the Health Physics Society in 1955 , serving as secretary pro tem and then charter secretary , and eventually as president of the Society from 1959 to 1960 . In 1960 , she established the professional certification agency known as the American Board of Health Physics . Despite contracting leukemia

in 1956 , Anderson remained undeterred in her career and maintained her position for several years until her eventual death in 1961 , during which she was also fighting breast cancer .

= = Atomic Energy Commission = =

In 1949 , Anderson moved to Oak Ridge , Tennessee to become the first chief of education and training in the Health Physics Division of the Oak Ridge National Laboratory . Karl Z. Morgan led the team responsible for training , that was headed by Anderson and assisted by Myron Fair and Mary Jane Cook Hilyer with administrative support from Frances Neal . Anderson also worked with faculty members at Vanderbilt University in Nashville , Tennessee , to create a master 's degree program in health physics at that institution .

= = Death and legacy = =

In 1956 , Anderson , who never married and had no children , developed leukemia . She died nearly five years later in Oak Ridge , Tennessee , of breast cancer and leukemia , possibly as the result of her work with radioactive materials , on 17 April 1961 . Anderson was buried at Green Lake Cemetery in Green Lake , Wisconsin . She was survived by her sister , Mrs. Lucille McConnell and niece , Natalie Tarr Millemann . Dr. Anderson 's obituary was well covered in the press and scientific journals . Tributes were written by colleagues and former students . Anderson is honored each year at the annual meeting of the Health Physics Society when the Elda E. Anderson Award is presented to a young member of the Society .

The Elda E. Anderson Award of the Health Physics Society was named in her honor .

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