William Freede was sent by his parents in Oklahoma, to study at Caltech. He graduated in the class of 1938, which consisted of a small closely knit group of only 120 students. In spite of the Depression, which was raging, he found engineering work right away in 1938. Some of his classmates whom he remembered well, and cherished as brothers, joined the Navy in 1938. They were already trained aviators by the Battle of Midway (1942), the most important naval battle of World War II. The American airplanes were inferior, and every one of his naval classmates was shot down, in spite of an overall American victory.

During the war he married Gloria, and they lived in a small cabin near the General Dynamics airplane factory near San Diego. Along with other engineers, Bill's critical engineering skills helped produce the airplanes which won the war.

As the war ended,--and before the onset of television,--Hollywood studios became an even more important industry. Bill worked in the rear projection Department at Paramount Studios where he helped introduce a new projector alloy geared toward brightness and realism in rear projection, as part of a group that won a Technical Academy Award (an Oscar\(^1\)) in 1947.

In 1954 Bill joined Atomics International Inc., a pioneer in innovative nuclear reactors, under contract to the Atomic Energy Commission. The testing station was located in the Santa Susannah Mountains just north of Los Angeles. Owing to Bill's leadership and self-confidence, he found himself as the only engineer at Atomics International, willing, on April 25, 1957 to take critical the first major nuclear reactor adjacent to a city. Having already thought through all the possible safety scenarios, Bill was successful in securely bringing it into operation.

A few months later, on July 12, 1957, the reactor produced the first electricity generated from a nuclear power system to supply a commercial power grid in the United States, for homes in the nearby city of Moorpark. This was the fore-runner of all nuclear utility generation, which today supplies 20% of America's electricity, and even more in other countries.

Two years later, in July 1959, the narrow internal cooling channels within the reactor fuel rod assemblies became obstructed by an unintended organic contaminant. Unfortunately, this led to a nuclear meltdown accident as the contaminant caused many of the reactor fuel elements to melt. Bill was put in charge of repairing the reactor; it eventually restarted in September, 1960.

The reactor meltdown was hushed up for 20 years. In 1961, Bill was Writer and Director for a secret movie explaining the accident and the repair procedure, a how-to-movie in case you have to recover from a nuclear meltdown. His movie was declassified 30 years later and provided the basis for cleanup at the Three-Mile island accident, the Chernobyl accident, and the recent Fukushima accident. Bill's movie is now available online at the U.S. Dept. of Energy web-site: http://etec.energy.gov/Library/Video/SRE_Video/SRE_Recovery.html

Atomics International became part of Rockwell International, where Bill spent the rest of his career.

\(^1\) From the oscars.com website:
1947 (20th) SCIENTIFIC OR TECHNICAL AWARD (Class III) To FARCIOET EDOUART, C. R. DAILY, HAL CORL, H. G. CARTWRIGHT and the PARAMOUNT STUDIO TRANSPARENCY and ENGINEERING DEPARTMENTS for the first application of a special anti-solarizing glass to high-intensity background and spot arc projectors. [Lighting]