Twenty-two milligrams of ^{252}Cf were produced through March 1969 by irradiations in the High Flux Isotope Reactor at the Oak Ridge National Laboratory. The product was recovered in the associated Transuranium Processing Plant.

Additional ^{252}Cf was made as a byproduct of ^{244}Cm production at high flux in a Savannah River Plant (SRP) reactor (Figures 3 & 4). This ^{252}Cf and that produced in subsequent high-flux irradiations were used in a market evaluation program.

My involvement with ^{252}Cf began in 1964 at the SRP which is located near Augusta, Georgia. The plant was engaged in a program to produce 3 kilograms of ^{244}Cm for the development and demonstration of power generators. In the chemical processing associated with the manufacture and separation of ^{244}Cm, very small quantities of californium isotopes are collected. During this processing, it was necessary to familiarize ourselves with the properties of the byproduct materials, in particular their radiation properties. Previous chemical separation operations had not required much neutron shielding because the neutron radiation had been far overshadowed by the gamma radiation present. In November of 1964, Dr. Carl S. Schlea (who had an office next door to my office and who was in charge of a group of scientists working on the chemical processing of the ^{244}Cm material) and I (Figure 5) collaborated in the preparation of an article that was published in the June 5th, 1965, issue of Nature magazine. This article was really the start of the whole ^{252}Cf program. The title of the article was "Californium Isotopes Proposed for Intracavity and Interstitial Radiation Therapy". Until that time, the idea of using an isotopic neutron source for radiotherapy probably had not even been considered because the possibility of having a very high intensity radioisotopic neutron source available did not exist. The advantages of neutron radiation were recognized to some degree at that time. During the same month, I also published an Atomic Energy Commission (AEC) Research and Development Report (DP-986) entitled "Radiation Properties of Californium-252." The purpose of that report was to compile the properties of reactor-produced californium which calculated to be about 72% ^{252}Cf. This information was documented for members of the scientific community who later may have been asked to handle ^{252}Cf.

One year later in June, 1966, A. R. Boulogne of the Savannah River Laboratory (SRL) manufactured the first ^{252}Cf needle for medical uses. The needle was designed after the radium needles which had been in use for some time. He made the needle in a laboratory glove box and hood (Figure 6) using paraffin blocks as movable shielding around his equipment. Boulogne's early needles were prepared by electrodepositing