could monitor our success by the amount of ^{246}Cf that was caught in the recoil catchers. The reason that the early vaporized targets didn't work properly was that a thin transparent deposit of tantalum oxide or tungsten oxide was also vaporized onto the target and this absorbed the fusion recoils very readily. After a number of failures (after each failure the target material had to be recovered and repurified), Bernie got disgusted and said, "Let's electroplate the target." He did so and the target worked very well--an almost weightless target in a very small area. That target survived many bombardments but by the time that we got to the crucial experiments the amount of ^{253}Es was down to about 10^9 atoms, a very marginal amount.

Before we got to this point, however, we had to have a cyclotron that would give us a helium ion beam of at least 100 microamperes per cm^2 --this would be 5 microamperes through an area of 0.05 cm^2. At that time (this was well before strong-focusing quadrupoles came into use) the only way we could get such an intensity was by taking advantage of the vertical focusing inherent in cyclotrons. We used the internal beam just after it was deflected. At this point the beam was only 1/32" high and 1/4" long, and this is where we placed the target. The target and recoil catcher cooling requirements as well as the intense radiation problem made the target probe equipment quite complicated. After each bombardment the catcher foil became extremely radioactive, but by judicious quick manipulation we were able to keep our personal radiation exposures down to safe levels.

It was also necessary to improve the 60-inch cyclotron to make the experiment possible at all. This was done by Bernie Rossi who is no longer with us, having died a few years after the experiments. I would like to pay tribute to his memory not only for his work in making this discovery possible but