

one of the pieces to the top of the solution and it took 10 seconds to fall from top to bottom, then that was the right concentration. (I've forgotten the exact time, but it was around 10 seconds.) The crystals formed were uranium nitrate hexahydrate; they weren't wet and were soluble in ether.

We allowed the hexahydrate to crystallize out, and did the ether extraction over again; then we had our solution of plutonium with only a few pounds of uranium nitrate.

I think that Perlman lays too much blame upon himself for having lost the entire stock. As I recall, we split the final water phase into two or more portions (there were at least two portions). It was Seaborg's intuition that a beaker or a centrifuge might break, and he was right. Although we desperately wanted the material that had been lost from that broken beaker, we still had the ace-in-the-hole of that other portion, and it was this plutonium that went into the supply which Burris Cunningham and co-workers worked on later.

GLENN T. SEABORG I have the impression in retrospect that not all these problems were called to my attention at the time.

I should say that although we didn't succeed in getting Professor Benedetti Pichler to come to Chicago, as I indicated earlier, we did succeed in luring Paul Kirk. I would like to recognize the contributions that he made to the ultramicrochemical investigations with plutonium in the subsequent stages of the project.

Now I would like to call on John Willard who came with us from the University of Wisconsin and who played one of the leading roles in the leadership of the plutonium section of the Metallurgical Laboratory.

JOHN E. WILLARD We all know that we are commemorating an occasion which had its origins in Glenn Seaborg, that he was responsible for bringing many of us here 25 years ago, and that his genius and foresight were responsible for catalyzing the best efforts of all associated with him.

As I think back to those years, some of his methods of doing this appear in a sharper, though perhaps apocryphal, light.

There was the initiation ceremony. For me, having been accustomed to working with nothing smaller than a vacuum line, this took the form of being presented with 1 microgram of plutonium with the suggestion that I work out a method for separating a kilogram a day from 10^5 curies of fission products—and do this within a week or two.