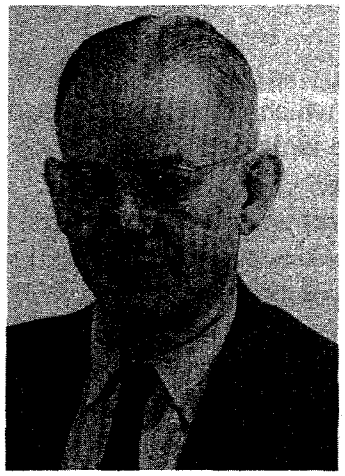
were transferred to Chicago where the Metallurgical Laboratory[8] was established.

In a general way, the experimental nuclear physics group under Fermi was primarily concerned with getting a chain reaction going; the chemistry division organized by F. H. Spedding (later in turn under S. K. Allison, J. Franck, W. C. Johnson, and T. Hogness) with the chemistry of plutonium and with separation methods, and the theoretical group under E. P. Wigner with designing production piles. However, the problems were intertwined and the various scientific and technical aspects of the fission process were studied in whatever group seemed best equipped for the particular task.



Norman Hilberry headed procurement efforts at the secret "Metallurgical Laboratory."

At Chicago, the work on subcritical size piles was continued. By July, 1942, the measurements obtained from these experimental piles had gone far enough to permit a choice of design for a test pile of critical size. At that time, the dies for the pressing of the uranium oxides were designed by Zinn and ordered made. It was a fateful step, since the entire construction of the pile depended upon the shape and size of the uranium pieces.

It was necessary to use uranium oxides because metallic uranium of the desired degree of purity did not exist. Although several manufacturers were attempting to produce the uranium metal, it was not until November that any appreciable amount was available. By mid-November, Westinghouse Electric and Manufacturing Company, Metal Hydrides Company, and F. H.

[8]The Metallurgical Laboratory was the predecessor of Argonne National Laboratory, which is operated for the U.S. Department of Energy by the University of Chicago and Argonne Universities Association.