

University of Chicago Library

# Guide to the Marvin Wilkening Papers 1940-1992



© 2006 University of Chicago Library

## **Table of Contents**

Descriptive Summary	3
Information on Use	3
Access	3
Citation	3
Biographical Note	3
Scope Note	4
Related Resources	4
Subject Headings	4
INVENTORY	4

## **Descriptive Summary**

**Identifier** ICU.SPCL.WILKENING

**Title** Wilkening, Marvin. Papers

**Date** 1940-1992

**Size** .5 linear ft. (1 box)

**Repository** Special Collections Research Center  
University of Chicago Library  
1100 East 57th Street  
Chicago, Illinois 60637 U.S.A.

**Abstract** Physicist. B.S., Southeast Missouri State University, 1939. M.S., Illinois Institute of Technology, 1943; Ph.D., 1949. Professor Emeritus of New Mexico Institute of Mining and Technology Contains correspondence, memoranda, notes, reprints, publications, and photographs. Material documents Wilkening's participation in the experiment that produced the first controlled nuclear chain reaction at the University of Chicago in 1942 and later scientific work at nuclear installations.

## **Information on Use**

### **Access**

No restrictions

### **Citation**

When quoting material from this collection, the preferred citation is: Wilkening, Marvin. Papers, [Box #, Folder #], Special Collections Research Center, University of Chicago Library

### **Biographical Note**

Wilkening is professor emeritus of physics and dean emeritus of graduate studies at New Mexico Tech.

While a graduate student at the Illinois Institute of Technology, Marvin Wilkening was a member of Enrico Fermi's group at the University of Chicago, which achieved the first sustained nuclear chain reaction. On December 2, 1942, Wilkening operated the neutron detector that indicated successful obtainment of a sustained chain reaction in the pile of graphite and uranium known as Chicago Pile 1.

When the U.S. Army's atomic bomb Manhattan Project was started, he continued his work on neutron detectors. He was present at New Mexico's Trinity Site during the explosion of the first atomic bomb on July 16, 1945.

At New Mexico Tech, Dr. Wilkening served as chair of the Department of Physics for 15 years. As a faculty member in the department, he conducted research on the atmospheric environment, both indoors and outdoors, specializing in the use of radon gas and its decay products as powerful investigative tools. His wife of 60 years passed away June 20, 2003.

## **Scope Note**

This collection contains correspondence, memoranda, notes, reprints, publications, and photographs. Material documents Wilkening's participation in the experiment that produced the first controlled nuclear chain reaction at the University of Chicago in 1942 and later scientific work at nuclear installations.

The collection also includes Enrico Fermi's handwritten description of the monitoring of the first Chicago pile, statements by atomic scientists regarding the global consequences of nuclear power, photographs of the Manhattan Project staff, notes written during the Trinity Site nuclear test, newspaper clippings and photocopies dealing with the anniversaries of the first nuclear chain reaction, and publications related to the Manhattan Project.

## **Related Resources**

The following related resources are located in the Department of Special Collections:

<http://www.lib.uchicago.edu/e/spcl/select.html>

<http://www.atomicarchive.com/Photos/CP1/image5.shtml>

<http://www.lib.uchicago.edu/e/spcl/phyast.html>

<http://www.lib.uchicago.edu/e/spcl/manhat.html>

<http://www.lanl.gov/history/road/chicago-reactor.shtml>

## **Subject Headings**

- Fermi, Enrico, 1901-1954
- Wilkening, M. (Marvin)
- Manhattan Project (U.S.)-History
- University of Chicago-History
- Nuclear reactors
- Nuclear reactions
- Nuclear physicists
- Physicists

## **INVENTORY**

### **Box 1**

#### **Folder 1**

Publications and photographs, 1940-1942

- Wilkening, M. H. and Kanne, W. R., "Localization of the Discharge in G-Ms Counters," reprinted from Physical Review 62 (1942)
- Photographs, Marvin Wilkening, Hitchcock Hall, and view of Stagg Field, Summer Session 1940
- Bulletin of the American Physical Society, Programme of the Chicago Meeting at the University of Chicago, November 27-28, 1942
- Official notice of the election of Marvin Wilkening to the American Physical Society, November 27, 1942

**Box 1**

**Folder 2**

Manhattan Project, notes, photographs and records, 1942-1945

- Enrico Fermi, handwritten notes taken during monitoring of first Chicago pile, about November 29, 1942
- Photograph of drawing of completed nuclear pile
- Xerox of photograph of signed Chianti bottle
- Arthur H. Compton to Marvin H. Wilkening, In re: Importance of Secrecy, May 3, 1943
- John Harty to Marvin Wilkening, excerpt, December 1942
- Photographs, Volney Wilson and members of the Instrument Group of the Manhattan Project vacationing on Lake Michigan, July 1943
- Blood count records of Marvin Wilkening, 1942-1945

**Box 1**

**Folder 3**

Correspondence and publications, 1947-1992

- Correspondence concerning "The First Pile" by Corbin Allardice and Edward R. Trapnell, 1951-1952
- Allardice, Corbin, previously unpublished Author's Note to "The First Pile," n.d.
- Allardice, Corbin and Trapnell, Edward R., "The First Pile," United States Atomic Energy Commission TID-292, 1955 edition
- Allardice, Corbin and Trapnell, 1961 booklet edition
- International Atomic Energy Agency Bulletin, special number marking the 20th anniversary of the first nuclear reactor, December 2, 1962
- Overbeck, William P., "The Birth of Atomic Energy," excerpt, December 1947
- Wilkening, Marvin, "The First Nuclear Reactor, Chicago, 2 December 1942," December 1992

**Box 1**

**Folder 4**

Enrico Fermi, articles, 1946-1952

**Box 1**

**Folder 5**

Statements by Atomic Scientists regarding the global consequences of nuclear power, 1945-1946

**Box 1**

**Folder 6**

Publications, 1945-1946

- University of Chicago Round Table 386, August 12, 1945 and 393, September 30, 1945
- Bulletin of the Atomic Scientists, February 1, 1946
- Los Alamos Newsletter, October 30, 1945
- "Conquest of Uranium and the Atomic Bomb," editorial in Chemical and Metallurgical Engineering, September 1945
- Ridenour, Louis N., "Military Security and the Bomb," reprinted from Fortune, November 1945

**Box 1**

**Folder 7**

Notes and correspondence, 1945-1983

- Trinity Test Site, New Mexico, handwritten notes by Marvin Wilkening, July 15-16, 1945
- Trinity Test Site, New Mexico, site description, notes and clippings, October 1, 1983
- Marvin H. Wilkening to P. N. Bishop, in re: Smithsonian Institute exhibit including replica of CP-1, January 15, 1962

**Box 1**

**Folder 8**

Anniversaries, 1952-1963

- Tenth anniversary of first nuclear chain reaction, luncheon and panel discussion program, December 2, 1952
- Twentieth anniversary of first nuclear chain reaction, correspondence, newspaper clippings, December 2, 1962-1963

**Box 1**

**Folder 9**

Twenty-fifth anniversaries of first nuclear chain reaction, December 2, 1962 and 1967