Introduction

This collection contains manuscript and printed material about civil defense from radioactive attacks as assembled by Dr. Oscar S. Peterson, Vermont’s leading expert on radiation, during the 1950s and 60s. On the 2nd of May, 2006, Jeneva Peterson, wife of Dr. Peterson, donated the papers to the Vermont Historical Society in May 2006. The papers are stored in two archival boxes and consume 1.5 linear feet of shelf space.

Biographical Note

Dr. Oscar S. Peterson, Jr., was born on May 31, 1912, in Brooklyn, New York, son of Oscar S. and Ester L. Peterson, Sr. The 1920 census showed the family located in Castleton, Vermont, and by 1930 they lived in Burlington, Vermont. Dr. Peterson graduated from the Medical College at the University of Vermont (UVM) in 1936 and interned at Mary Fletcher Hospital, Burlington, where he specialized in radiology. He interned from 1941-1942 at Massachusetts General Hospital in Boston, and 1942-1944 at the Massachusetts State Cancer Hospital, Pondville, Massachusetts. By 1944 he had returned to Burlington where he set up his medical practice.

Dr. Peterson developed the radiation therapy program at the University of Vermont. His interest in radiology and its effects on the human body brought him an invitation to serve as Vermont’s Radiological Consultant to the Civil Defense Division of the Vermont Department of Public Safety. He also became an author, writing many articles on radiation as well as a history of the town of Williston, Vermont. He became a member of the staff of Mary Fletcher Hospital, the attending radiologist for several other Vermont hospitals, and a consultant on cancer to Vermont Department of Public Health. Dr. Peterson belonged to such organizations as the American College of Radiology, the New England Cancer Society, and the New England Roentgen Ray Society. He served as a trustee and chairman of the executive committee of the Vermont Cancer Society, and served as the Radiological Safety Officer for UVM.

Peterson passed away on September 3, 1988 in Williston. He left behind his wife Jeneva (Pat), whom he married on November 7, 1936, and five daughters.

Scope and Content

The first folder in the collection includes correspondence between Peterson and state officials, 1950-1970, including Dr. Peterson’s investigation into a bit of nuclear fallout he recovered from an automobile in the Springfield, Vermont, area.

As part of the Vermont Civil Defense, state officials selected Dr. Oscar S. Peterson as a radiological consultant to its programs. Dr. Peterson pioneered radiological
therapy in Vermont and had been a radiation and cancer specialist for many years. As the
civil defense program had a military component, Dr. Peterson underwent training through
such entities as the US Army Medical Center. The collection includes the manual Dr.
Peterson used during his training. It still carries the “Restricted” classification markings
and Dr. Peterson’s hand written notes.

Other documents include Peterson’s thoughts and theories on nuclear fallout as well as his warnings as to the consequences of a nuclear strike in or near Vermont.

The collection includes over 130 publications, pamphlets, training manuals,
equipment maintenance manuals, and other informational booklets concerning radiation,
its effects on the human body and the environment, and civil defense in general.
Publications produced by Vermont agencies are in MSA 440:5. Most of the documents in
the collection comes from federal government agencies, but a few come from civilian
commercial and medical sources. All of these are in Doc 489. These publications have
been saved to document that state of knowledge about nuclear attacks that existed at the
time Dr. Peterson was active.

The equipment manuals in the collection relate to the radiation monitoring
equipment Dr. Peterson would have used in the field, mostly in nuclear response
exercises and in an emergency if one had occurred.

As a state consultant, Peterson was responsible for educating the public about
nuclear fallout. The collection contains a few film strips and a slideshow he would have
used to introduce others to the concepts of radiation monitoring as well as the duties and
responsibilities assigned to other civil defense personnel.

Related Collections

The VHS museum collection includes four Geiger counters and related items
from Dr. Peterson’s work (2004.35).

The VHS library has additional materials about the civil defense efforts in the
1950s in various locations. A smaller collection of pamphlets from the same era is in the
Balham Civil Defense collection (MSA 413). Search in the online catalog under the
subject heading “Civil Defense –Vermont” for specific items or collections. For
example, the Vermont Civil Defense “basic plan” from 1953 is in the library at 363.35
V5914b and a community shelter plan designed by Dufresne-Henry Engineering is at
363.35 D876w.

Inventory

I. Papers


2 Training manual from the Army Medical Center on radiation, 1948?
3 Radiological and Civil Defense talks  
(contains transcriptions supplied by others)  
4 UVM handbooks  
5 Vermont Civil Defense materials  
   Includes:  
   • "Vermont Civil Defense," Vermont Civil Defense Agency,  
   Department of Public Safety, (Tentative) Montpelier, 1950  
   • "Your Air Defense Command and your Ground Observer  
   Corps," Air Force Cambridge Research Center, Air  
   Research and Development Command, not dated.  
   • "Is Your Home Ready for an Emergency?," University of  
   Vermont and State Agricultural College, Vermont  
   Agricultural Extension Service, not dated, pamphlet Q103  
   1-56 QCP  
   • "Public Laws Rules and Regulations Relating to Public  
   Buildings, Sanitation, Plumbing, Heating, and Ventilation,"  
   State of Vermont, Department of Public Health, Division of  
   Sanitary Engineering, 1941  
   • "Vermont Civil Defense Laws," Reprinted from Title 20  
   and others, Vermont Statutes Annotated, circa 1960  
   • Instructions to radiation monitors; Vermont Aircraft  
   Observation Posts; Do Not Enter sign, radiation; pocket  
   cards of radio calls signs and codes  
   • Slide show, “Radiation Hazards and Protections”  
6 Vermont Radef (Radiological Defense) Program, 1957-1960  
   Includes:  
   • “Radiological Defense: A Course” (2 versions)  
   • “Operations Manual”  
   • “Operations Plan”  
   • “Radef Monitors Handbook”  
   • Memoranda and correspondence  
7 Training package concerning radioactive fallout from the  
   Department of Defense.  
   Most of the items are still in the package; however, one of  
   the film strips is missing from its film canister. Includes Vermont  
   Civil Defense badge and sticker.  

II. Printed Items  

A. US Government Sources  

1. Federal Civil Defense Administration materials  
   Doc 489:1 Basic Emergency Broadcast System Plan, 1st Rev, Effective 4 Aug  
   1967  
   2 Federal Civil Defense Guide, Emergency Communications, Feb  
   1967
3. Office of Civil and Defense Mobilization material
   Doc 489:26 Nuclear Weapons Phenomena and Characteristics, (draft version)
   Mar 1961
   27 Clay Masonry Family Fallout Shelters, MP-18, Feb 1960
   28 The Family Fallout Shelter, MP-15, Jun 1959

3. Department of Defense, Office of Civil Defense materials:
   Doc 489:29 Abbreviations and Definitions of Terms Commonly Used in Civil
   Defense, MP-51, Feb 1968
30  Civil Defense Household, First Aid Kit, revised Jun 1957 (Leaflet)
31  Emergency Rescue Training, SM 14-1 (Pocket Edition), 1961
32  Handbook for Aerial Radiological Monitors, FG-E-5.9.1, Jul 1966
33  Handbook for Radiological Monitors, FG-E-5.9, Apr 1963
34  In Time of Emergency, a citizen’s handbook on Nuclear Attack, Natural Disasters, Mar 1968

4. United States Atomic Energy Commission Booklets and pamphlets:
Doc 489:35  Civilian Nuclear Power: An Evaluation of Alternate Coolant Fast Breeder Reactors, Apr 1969
38  18 Questions and Answers about Radiation, circa 1964
39  Atomic Energy in Use, 1966
40  The Effects of Nuclear Weapons, Revised Edition, reprinted Feb 1964
41  Effects of High-Yield Nuclear Explosions, Lewis L. Strauss, Feb 1955
42  Emergency Handling of Radiation Accident Cases (Ambulance-Rescue Squads) 1969
43  Health Aspects of Nuclear Weapons Testing, Jun 1964
44  Nuclear Power and the Environment, Lib. of Congress No. 78-603016, 1969
45  Plowshare, Lib. of Congress No. 66-61 319, Oct 1968
46  11th Annual Report for the year ending June 30, 1957, Oak Ridge Institute of Nuclear Studies
47  Some Effects of Ionizing Radiation on Human Beings, Jul 1956
49  Prospecting for Uranium, revised Oct 1951

5. Federal Radiation Council materials:
Doc 489:50  Background Material for the Development of Radiation Protection Standards, May 13, 1960

6. US Department of Agriculture materials
52  Radioactive Fallout in Time of Emergency, Effects Upon Agriculture, ARS 22-55, Apr 1960
53  Defense against Radioactive Fallout on the Farm, Bulletin No. 2107, Jun 1957

7. National Plant Food Institute Material
Doc 489:54  
**Radioactive Fallout, What's Being Done about It**, undated

8. US Department of Commerce, National Bureau of Standards materials:

Doc 489:55  

56  
*Control and Removal of Radioactive Contamination in Laboratories*, Handbook 48, Dec 15, 1951

57  

58  
*Medical X-Ray Protection Up to Three Million Volts*, Handbook 76, Feb 9, 1961

59  

60  
*Protection against Betatron-Synchrotron Radiations up to 100 Million Electron Volts*, Handbook 55, Feb 26, 1954

61  
*Protection against Neutron Radiation Up to 30 Million Electron Volts*, Handbook 63, Nov 22, 1957

62  
*Protection against Radiations from Radium, Cobalt-60, and Cesium-137*, Handbook 54, Sep 1, 1954

63  
*Protection against Radiations from Sealed Gamma Sources*, Handbook 73, Jul 27, 1960

64  
*Radium Protection*, Handbook H23, 1938

65  

66  
*Radiological Monitoring Methods and Instruments*, Handbook 51, Apr 7, 1952

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71  
*Safe Handling of Bodies Containing Radioactive Isotopes*, Handbook 65, Jul 10, 1958

72  
*Safe Handling of Cadavers Containing Radioactive Isotopes*, Handbook 56, Oct 26, 1953

73  
*Safe Handling of Radioactive Isotopes*, Handbook 42, Sep 1949

74  
*Shielding for High-Energy Electron Accelerator Installations*, Handbook 97, Jul 1, 1964

75  
*X-Ray Protection*, Handbook 15, 1931

76  
*X-Ray Protection*, Handbook 60, Dec 1, 1955

9. US Department of Health, Education, and Welfare materials:
Doc 489:77  A Review of Determinations of Radiation Dose to the Active Bone Marrow from Diagnostic X-Ray Examinations, Oct 1973

78  Biological Aspects of Microwave Radiation, A Review of Hazards, Jul 1968

79  Civil Defense Information for Food and Drug Officials, Jun 1955

80  Radium Safety, GPO 979-918, undated

81  What about Radiation? Mar 1964 leaflet


83  The Biological Effects of Atomic Radiation, A Report to the Public 1960

84  The Biological Effects of Atomic Radiation, A Report to the Public 1956

85  The Biological Effects of Atomic Radiation, Summary Reports, 1956

86  Genetic Effects of Atomic Bombs, excerpt, National Academy of Science, Publ. 461

B. Commercial source material:

Doc 489:87  Handbook of Rules for Administration of Radioactive Materials to Patients, Squibb, circa 1959

88  Instruction and Maintenance Manual for Dosimeter Ratemeter CD V-736, Dosimeter CD V-746, and Dosimeter Ratemeter Charger CD V-756, Bendix Corporation, date not apparent

89  Instruction and Maintenance Manual, Radiological Survey Meter FCDA Item No. CD V-700, Model, UAC Model V-700, Universal Atomics, date not apparent

90  Quimby, Edith H., Dosage Calculations in Radium Therapy, Ansco, circa 1953


92  Therapy with Cobalt 60, Picker X-Ray Corporation, Bulletin #1956, circa 1956

C. Miscellaneous medical source material:

1. Miscellaneous sources

Doc 489:93  “Grants-in-Aid in Cancer Research”, American Cancer Society, undated leaflet

94  Hoffmeister, F.S., M.D., Studies on Timing of Tissue Transfer in Reconstructive Surgery, reprinted from Plastic and Reconstructive Surgery, Vol. 19, No. 4, Apr 1957


97 *The United States Strategic Bombing Survey material*

98 *The Effects of Atomic Bombs on Health and Medical Services in Hiroshima and Nagasaki*, Mar 1947

2. American College of Radiology materials

Doc 489:99 *A Comment on the Biological Effects of Atomic Radiation, Summary Reports*, ca. 1956

100 “Group Disability Insurance Program”, The American College of Radiology, circa 1952

3. New England Journal of Medicine materials


102 Volume 240, No. 22, 2 Jun 1949

D. Miscellaneous source materials


104 *A Primer on Radiation Hazards for Physicians*, Nov 1957, Radiological Society of North America, with paper chart: *Clinical Signs Total Body Radiation*, undated

105 *CEX-59.1, An Experimental Evaluation of the Radiation Protection Afforded by a Large Modern Concrete Office Building*, Jan 22, 1960


107 *Civil Defense Technical Bulletin*, TB-8-1, Feb 1955


109 *Interim Technical Information on Aerial Radiological Survey Techniques*, Apr 5, 1956, FCDA Region 1

110 *Radiation Sterilization*, reprinted from Nucleonics, Oct 1953-Jan 1955

111 *White House Conference on Fallout Protection*, Jan 25, 1960, Special Committee on Civil Defense of the Governors’ Conference

112 *The Effects of Atomic Weapons*, Los Alamos Scientific Laboratory, Sep 1950


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114 Mass Casualties, Principals Involved in Management, Federal Civil Defense Admin., Apr 1956
115 “Price List No. 256, Official Outfitters for United States Coast Guard Auxiliary, All-Bilt Uniforms,” no date
117 Survival, FM 21-76, Dept. of the Army, Oct 1957
118 Atomic Energy Project, unclassified, UR-112, 9/1/50, University of Rochester
120 Booklet: Bryan, Arthur Herbert, How to use the Bryan Valence Blocks, The Porter Chemical Company, Hagerstown, MD. (Chemistry)

E. Miscellaneous files, reports, etc.:

Doc 489:121 Tsuzuki, Masao, Dr., Report on the Medical Studies of the Effects of the Atomic Bomb, Jan 1947
122 Warren, Shields, MD, and Bowers, John Z., MD, The Acute Radiation Syndrome in Man, the American College of Physicians, 1950
123 Pearse, Herman E, MD, and Payne, J. Thomas, MD, Mechanical and Thermal Injury from the Atomic Bomb, Rochester, NY, ca. 1950
126 Roswit, Bernard, MD, and Kaplan, Gustave, MD, The Role of Nitrogen Mustard (HN2) as a Systemic Adjunct to the Radiation Therapy of Certain Malignant Diseases, American Journal of Roentgenology and Radium Therapy, Vol. LXI, No. 5, May 1949
131 “Notes on Preventative Medicine in the Atomic Age,” Department of the Army, 18 May 1948

133 The American College of Radiology Monthly Newsletter, Vol. 6, No. 9, Sep 1950

134 Catalog Q Price List, Dec 31, 1957, Nuclear-Chicago Corporation

135 Miscellaneous Civil Defense course lecture programs

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