

Carver Research Foundation of Tuskegee University

ESTABLISHED, 1940 BY GEORGE WASHINGTON CARVER

TUSKEGEE, ALABAMA 36088



OFFICE OF THE DIRECTOR

August 8, 1988

US Nuclear Regulatory Commission
Washington, DC 20555
ATTN: Mr. Brian Thomas
Mail Stop WFN1 4-H-3

Dear Mr. Thomas:

You are cordially invited to a Conference Series of Distinguished Speakers on Radioactive Waste Management and Disposal Issues to be presented at the University of Oklahoma, Oklahoma City Campus - Health Sciences Center in Nicholson Tower Auditorium, Rm 5N300, Oklahoma Children's Memorial Hospital, 940 NE 13th Street, Oklahoma City, OK on September 7-8, 1988. The conference lecture series is jointly sponsored by the Carver Research Foundation of Tuskegee University, Tuskegee, Alabama and the Nuclear Regulatory Commission. The conference series are designed to fulfill some of the educational aims of the Nuclear Regulatory Commission in which pertinent information will be disseminated using both a technical and non-technical approach in order to address the various programs that are currently being used to handle the problems of radioactive waste management and disposal.

The conference series will bring in the top professionals as well as non-professionals in the area of radioactive waste management in order to present the various avenues that are open to address this problem and to stimulate dialogue so that a solution can be found. Therefore, the purpose of this forum will be to discuss the various issues among professionals, the academic community and the general public on the safe handling of both low and high level radioactive wastes.

I am extending this invitation to you and encourage you to invite your colleagues to attend the conference which will begin at 9:00 a.m.. The conference will be highly informative as well as very interesting and will stimulate a great deal of dialogue on the subject of radioactive waste management and disposal issues and might bring about a solution to this perplexing problem.

Enclosed is a tentative agenda of the university of Oklahoma, Oklahoma City Campus - Health Sciences Center conference on "Medical & Industrial Low Level Radioactive Waste Management and Disposal" issues. If additional information is needed, please call me at 205-727-8246.

Sincerely yours,

Abraham Weaver

Abraham Weaver, Ph.D.
Project Director

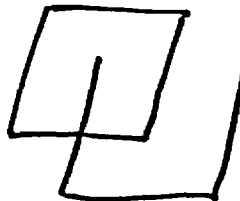
8808120141 880808
NMSS SUBJ
426.6 CDC

NHXA
426.6

FINAL DRAFT

WENT TO PRINTERS 7/27/88
MAILINGS TO START 8/2/88

A CONFERENCE ON
MEDICAL & INDUSTRIAL LOW LEVEL
RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL



(Univ. Logo)

ORGANIZED BY

The College of Pharmacy, Nuclear Pharmacy Programs
and
The College of Medicine, Department of Radiological Sciences
The University of Oklahoma, Health Sciences Center
Oklahoma City, OK

AND SPONSORED BY

The Carver Research Foundation of Tuskegee University
and
The United States Nuclear Regulatory Commission

September 7-8, 1988

Nicholson Tower Auditorium, Rm 5N300
Oklahoma Children's Memorial Hospital
940 NE 13th Street
Oklahoma City, OK 73126

This Conference is planned as an educational event which will provide citizens and policy makers different perspectives on the management of low level radioactive waste generated in hospitals, nuclear pharmacies, academic/research institutions and industry, and the safeguards used in protecting the public and the environment. We hope also to clarify to the public, policy makers, administrators, and users of radioactive material, the significance of the issues for possible development of future policies regarding the disposal of low level radioactive waste in the Southwest Region of the United States.

**MEDICAL & INDUSTRIAL LOW LEVEL
RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL**

PROGRAM

WEDNESDAY, SEPTEMBER 7, 1988 - SESSION I

9:00 a.m.

Coffee/Registration

10:00 a.m.

WELCOME & GREETINGS

Dr. Clayton Rich, Provost

University of Oklahoma, Health Sciences Center

Dr. Victor A. Yanchick, Dean
College of Pharmacy, OUHSC

Dr. E. William Allen, President-Elect
American College of Nuclear Physicians

10:30 - 11:15 a.m.

Dr. Abraham Weaver, Project Director
Carver Research Foundation of Tuskegee University
*Participation of Professional Organizations in Radioactive
Waste Management and Disposal Planning*

Dr. John Weir

American College of Nuclear Physicians

11:15 - 12:00 p.m.

*Biological Effects from Low Level Exposure to Ionizing
Radiation*

Dr. Vernon Ficken, Assistant Professor and

Technical Director, Nuclear Medicine, Oklahoma Medical Center

12:00 p.m.

LUNCH

SESSION II

RADIOPHARMACEUTICAL & RADIOTRACER WASTE MANAGEMENT

1:15 - 2:15 p.m.

In a Regional Nuclear Pharmacy

Dr. Stanley L. Mills, Associate Professor and
Director, Nuclear Pharmacy Services, OUHSC

Dr. Garo P. Basmadjian, Professor and
Director, Nuclear Pharmacy Programs, OUHSC

2:15 - 3:15 p.m.

In a Clinical Setting - Health Sciences Center

Dr. E. William Allen, Professor and
Chief, Nuclear Medicine, Oklahoma Medical Center

In a Clinical Setting - Major Private Hospital

Dr. Clifford Richter

Radiation Safety Officer, Presbyterian Medical Center

3:15 p.m.

BREAK

3:45 - 4:45 p.m.

In the Academic Research Setting

Dr. Paul Skierkowski

Radiation Safety Officer, University of Oklahoma, Norman

Dr. Bhagwat D. Ahluwalia, Associate Professor and
Radiation Safety Officer, OUHSC

4:45 - 5:30 p.m.

In a University Reactor Setting

Mr. Thomas L. Pitchford, M.S., M.B.A.

Director of Research Safety, University of Missouri

6:30 - 8:30 p.m.

DINNER/NATIONAL COWBOY HALL OF FAME

THURSDAY SEPTEMBER 8, 1988

**SESSION III
INDUSTRIAL LOW LEVEL RADIOACTIVE WASTE MANAGEMENT**

- 9:30 a.m. Coffee/Registration
10:00 - 11:00 a.m. *History of the Gore Uranium Release*
Dr. Carl R. Bogardus, Jr., Professor and
Director, Division of Radiation Therapy
*Energy Generated Low Level Radioactive Waste from the
Uranium Fuel Cycle*
Dr. Edwin Still, Vice President and
Director, Environmental and Health Management Division
Kerr-McGee Corporation
11:00 - 11:45 a.m. *Industrial/Medical Generated Low Level Waste*
Mr. Thomas J. Springer
Plant Manager, Medi-Physics Inc., Arlington, Ill.
11:45 - 12:30 a.m. *Industrial/Medical Generated Low Level Waste*
Dr. Donald H. Charlesworth
Director, Waste Management Technology Division,
Atomic Energy Canada at Chalk River, Ontario, Canada
12:30 - 1:30 p.m. LUNCH

**SESSION IV
ENVIRONMENTAL AND REGULATORY ISSUES
IN RADIOACTIVE WASTE MANAGEMENT**

- 1:30 - 2:15 p.m. *Recent Issues Regarding Mixed Waste Management*
Mr. Bernhardt C. Warren, M.P.A.
Manager, Quadrex Waste Management Services
Gainesville, FL
2:15 - 3:00 p.m. *Topic to be announced*
Nuclear Regulatory Commission Representative
3:00 p.m. BREAK
3:30 - 4:15 p.m. *State's Perspective on Low Level Waste*
Mr. Dale McHard, M.P.H.
Oklahoma State Department of Health
Radiation & Special Hazard Services
4:15 - 4:45 p.m. *The Role of the Central Interstate Low Level Radioactive
Waste Compact Commission*
Raymon Peery, Executive Director and General Counsel
Central Interstate Low Level Radioactive Waste Compact Comm.
4:45 - 5:30 p.m. EVALUATION/REMARKS/PANEL DISCUSSION
Drs. Ahluwalia, Allen, Bogardus, Charlesworth, Mills,
Weaver, Weir
Mr. McHard, Peery, Springer, Still, Warren, NRC Repres.

***** REGISTRATION FOR THE CONFERENCE IS FREE *****

Coffee and Refreshments Compliments of the OUHSC Regional Nuclear Pharmacy.

PRESENTERS

Bhagwat D. Ahluwalia, Ph.D.

Received his M.S. in Physics from Panjab University, India in 1964 and the Ph.D. from Boston University in 1972. He has served as Medical Physicist at Massachusetts General Hospital and at the University of Oklahoma Health Sciences Center where he is currently Director of Radiation Safety Services and Radiation Safety Officer. Dr. Ahluwalia has been instrumental in the development of low-level radioactive waste management for both public and private institutions in Oklahoma.

E. William Allen, M.D.

Received his M.D. from the University of Texas Medical Branch, Galveston, TX. He completed the Internal Medicine and Endocrinology residency and fellowship in 1965 and a residency in Nuclear Medicine at the University of Michigan in 1968. He joined the medical staff of the Veterans Administration Hospital as Chief of Service of Nuclear Medicine and in 1982 he became Director of Nuclear Medicine for the University of Oklahoma HSC. Dr. Allen has served as chairman of the campus wide Radiation Safety Committee for the OUHSC, a member of the speakers bureau for the American College of Nuclear Physicians (ACNP), chairman of the Low Level Radioactive Waste Committee for the ACNP and was recently elected President-Elect of the ACNP.

Garo P. Basmadjian, Ph.D.

Received his B.S. and M.S. in Pharmacy from the American University of Beirut, Lebanon and the Ph.D. in Natural Products/Medicinal Chemistry from Purdue University, IN, in 1970. He joined the faculty of the College of Pharmacy, OUHSC in 1976 after spending five years in teaching and research at the University of Michigan, Ann Arbor, MI, and two years as a Senior Radiopharmaceutical Scientist at Abbott Laboratories, Chicago. In 1977 he co-founded the first Regional Nuclear Pharmacy in the state of Oklahoma. Presently he is Professor and Director, Nuclear Pharmacy Programs and has over 40 scientific publications in the field of Nuclear Pharmacy and Radiopharmaceutical Chemistry.

Carl R. Bogardus, Jr., M.D.

Received his M.D. from the University of Louisville School of Medicine in Louisville, KY in 1959. His medical residency in Therapeutic Radiology at Penrose Cancer Hospital in Colorado Springs, CO was followed by a fellowship in Radiation Therapy and Radiation Physics at Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, MO. Dr. Bogardus joined the medical staff of the OUHSC and is now Director of Radiation Therapy. He also serves as Medical Radiation Safety Consultant to many Oklahoma hospitals and to the Sequoyah Fuels Division of Kerr-McGee Corporation. He is an elected member of the Board of Chancellors and Secretary Treasurer of the American College of Radiology and President of the Midwest Cancer Foundation of Oklahoma City, OK.

Donald H. Charlesworth, Ph.D.

Received his B.S. in 1950 and the M.S. in Chemical Engineering in 1952 from Queen's University, Kingston, Ontario, Canada and the Ph.D. in Chemical Engineering from the University of Wisconsin, Madison, WI in 1954. He serves as an elected Fellow of the Chemical Institute of Canada. He is a member of the Nuclear Safety Advisory Committee of the Atomic Energy of Canada (AECL) and is a Consultant and Director of Waste Management, Technology Division at the Chalk River Nuclear Facility, Ontario, Canada.

Vernon J. Ficken, Ph.D.

Received his M.S. in Environmental Health from the University of Oklahoma in 1971 and the M.S. and Ph.D. in Radiological Science from the University of Oklahoma in 1974 and 1984 respectively. He is currently the Technical Director of Nuclear Medicine at the Oklahoma Memorial Hospital and is a consultant radiological physicist for many Oklahoma hospitals and the Veterans Administration Hospital in Oklahoma City.

Dale McHard, M.P.H.

Received his B.S. in Chemical Engineering in 1956 from Oklahoma State University, Stillwater, OK and the M.P.H. in Industrial Hygiene in 1962 from the University of Michigan, Ann Arbor, MI. Mr. McHard joined the State of Oklahoma Department of Health in 1958 and is currently Chief of the Radiation and Special Hazards Service which is responsible for regulation and enforcement of low-level radioactive waste management in Oklahoma.

Stanley L. Mills, Ph.D.

Received the B.S. in Pharmacy in 1973, M.S. in Pharmacy and M.S. in Radiological Sciences in 1979 and 1980 respectively from the University of Oklahoma. He obtained his Ph.D. in Radiological Sciences in 1980 from the University of Oklahoma. He was a Consultant-Medical Physicist for the Memphis, Tennessee area from 1980-1982. He served as Chair of the Scientific Program Committee, American Pharmaceutical Association, Section on Nuclear Pharmacy 1987-1988. He is currently Associate Professor and Director of the Nuclear Pharmacy Services, OUHSC and is involved in research and development of radiolabeled monoclonal antibodies for diagnostic and therapeutic uses.

Raymon Peery

Executive Director and General Counsel for the Central Interstate Low Level Radioactive Waste Compact Commission.

Thomas L. Pitchford, M.S., M.B.A.

Received his B.A. from Washington and Jefferson College, Washington, PA in 1954 and his M.S. in Radiological Health from New York University, NY in 1965, and the M.B.A. from the University of Utah, Salt Lake City, UT in 1971. He served as a Radiobiologist at the Armed Forces Radiobiology Research Institute in Washington, D.C. and as Executive officer with the U.S. Army Nuclear Medical Research Detachment in Germany. Later he was Chief of Health Physics at Letterman Army Medical Center in San Francisco, CA and Health Physics Consultant with the U.S. Army Health Services Command in Texas. Other responsibilities have included member of the FDA/BRH Technical Electronic Product Radiation Safety Standards Committee. He is currently the Editor of Health Physics, a Member of the Missouri Low Level Radioactive Waste Advisory Committee and Director of the University of Missouri Office of Research Safety, Columbia, MO.

Clifford Richter, Ph.D.

Received the M.S. in Health Physics and Ph.D. in Medical Physics in 1969 and 1972 respectively from the University of Oklahoma, Norman, OK. His Post-doctorate studies in Medical Radiation Physics were completed in 1973 at Ellis-Fischel Cancer Center, Columbia, MO where he remained as Director of Medical Physics until 1984. He participated in the development of a major consulting firm, Radiation Consultants of Mid America, and specialized in Radiation Therapy, Diagnostic and Nuclear Medicine Physics. In 1986, Dr. Richter became Director of Medical Physics for the HCA Presbyterian Hospital in Oklahoma City, OK.

Paul Skierkowski, Ph.D.

Received his B.S. in Pharmacy from Purdue University in 1963. After four years of military service, received his Ph.D. in Bionucleonics/Health Physics from Purdue University, IN, in 1971. From 1971-1982 was on the faculty of the School of Pharmacy, University of Mississippi and also served as the University's Radiation Safety Officer. He joined the University of Oklahoma, Norman Campus to develop a comprehensive academic Radiation Safety Program. Presently he is the Radiation Safety Officer for the OU Norman Campus, and has adjunct appointments in the Departments of Botany-Microbiology and Civil Engineering-Environmental Science. He is a certified Health Physicist by the American Board of Health Physics.

Thomas J. Springer

Received his B.S. in Chemistry from Washington State University in 1976. In 1974 he worked for the radiochemistry group at Mount Sinai Medical Group manufacturing radiopharmaceuticals for use in that hospital. Since 1975, he has held various positions at Medi-Physics, Inc., a wholly owned subsidiary of Hoffman-La Roche. He is currently Plant Manager at their Arlington Heights, Illinois cyclotron facility. He is the Medi-Physics representative to the United States Council for Energy Awareness Committee which discusses new government regulations of controlling radiopharmaceuticals for radioactive waste management.

Edwin Still, D.V.M., M.S.

Received his D.V.M. from the University of Georgia, GA, in 1959 and his M.S. in Radiation Biology from Rochester University, Rochester, NY. He has served as the Research Program Coordinator of the Armed Forces Radiobiology Research Institute in Bethesda, MD and later as Assistant to the Director of Biomedical Effects for the Defence Nuclear Agency in Washington, D.C. from 1976 to 1982. Dr. Still joined Kerr-McGee Corporation in 1982 as Senior Physical Scientist in the section of Corporate Medicine, Environment and Health Management Division. In 1984 he became Vice President and Director of Environment and Health Management of Kerr-McGee Corporation.

Bernhardt C. Warren, M.P.A.

Received the B.S. degree from Florida Southern College and the Masters in Public Administration from Florida State University. He served as a Commissioned Officer in the U.S. Army Medical Service Corps from 1970-1973. Currently he is in the U.S. Army Reserves as an Executive Officer of a field hospital. He is a Board Certified Hazard Materials Manager and Certified Control Manager. Currently he is the Manager, at Quadrex Waste Management Services, Gainesville, FL.

G. John Weir, Jr., M.D.

Received his M.D. from the University of Colorado School of Medicine, Denver, CO in 1958 and completed his Rotating Internship at the Naval Hospital in Portsmouth in 1959. He attended the Submarine, Diving and Nuclear Power Training for Medical Officers and an Internal Medicine Residency at the Naval Hospital in Philadelphia. Dr. Weir attended the University of Rochester, Bethesda, and obtained the M.S. degree in Radiobiology and Nuclear Medicine for Medical Officers, in 1969. He has served on the Nuclear Medicine staffs of Milwaukee County Hospital, and the University of Wisconsin Medical School, Madison, WI. Currently he is a Trustee of the Society of Nuclear Medicine, Treasurer and Chairman of the Public and Professional Information Program of the American College of Nuclear Physicians. Dr. Weir is a member of the speakers bureau of the American College of Nuclear Physicians.

CONFERENCE ADVISORY BOARD

GARO P. BASMADJIAN, Ph.D. (COORDINATOR)

Professor, Nuclear Pharmacy
Director, Nuclear Pharmacy Programs
College of Pharmacy
University of Oklahoma, Health Sciences Center

VERNON J. FICKEN, Ph.D. (COORDINATOR)

Assistant Professor, Radiological Sciences
Technical Director, Nuclear Medicine, Oklahoma Medical Center
Chairman, Radiation Safety Committee, OUHSC
University of Oklahoma, Health Sciences Center

E. WILLIAM ALLEN, M.D.

Professor & Director, Nuclear Medicine, Oklahoma Medical Center
President-Elect, American College of Nuclear Physicians
University of Oklahoma, Health Sciences Center

CARL R. BOGARDUS, JR., M.D.

Professor & Vice-Chairman, Department of Radiological Sciences
Director, Division of Radiation Therapy
Consultant - Medical Radiation Safety, Sequoyah Fuels Division, Kerr-McGee Corp.
University of Oklahoma, Health Sciences Center

BHAGWAT D. AHLUWALIA, Ph.D.

Associate Professor, Radiological Physics
Director, Radiation Safety Services, OUHSC
University of Oklahoma, Health Sciences Center

STANLEY L. MILLS, R.Ph., Ph.D.

Associate Professor, Nuclear Pharmacy
Director, Nuclear Pharmacy Services
College of Pharmacy
University of Oklahoma, Health Sciences Center

The University of Oklahoma Health Sciences Center is an equal opportunity institution.

This publication is issued by the University of Oklahoma, College of Pharmacy, Nuclear Pharmacy Programs as authorized by its Director. 2000 copies have been prepared by the OUHSC Printing Services for distribution at no cost to the taxpayers of Oklahoma. August 1988.

RESERVATION

REGISTRATION FOR THE CONFERENCE IS FREE.

Due to limited seating, reservations to the Visit and Dinner, at the Cowboy Hall of Fame are required. The Charge for the visit and dinner only is \$7.00.

Please make check payable to "Radioactive Waste Management Conference" and return this form in the enclosed postage paid envelope.

Name _____

Organization _____

Address _____

Business Phone _____

I-070067-065-01
Conference Secretary
Regional Nuclear Pharmacy
College of Pharmacy
P.O.Box 26901
Oklahoma City, OK 73126-9968