



MID-MISSOURI MEDICAL FOUNDATION, INC.

3400 W. Truman Boulevard
Jefferson City, Missouri 65109
(314) 893-5252

RADIATION THERAPY & DIAGNOSTIC IMAGING

William D. Smittle, D.O., President
Harold G. Butzer, Vice-President
William R. Tweedie, Jr., Sec.-Treasurer

Robert M. Fluegge
Administrative Director

January 13, 1989

Mr. Kevin G. Null
Materials Licensing Section
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Re: Control Number 86219

Dear Mr. Null:

Find enclosed the additional information which you requested in your letter of December 1, 1988.

If you have need additional information, please let me know.

Sincerely yours,

William D. Smittle, D.O.
President

WDS:lk

Enclosure

8903140364 890124
REG3 LIC30
24-25979-01 PNU

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Rec'd LTH
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Mid-Missouri Medical Foundation - NRC Additional Information

This document is in reference to Control #86219

7. a. In addition to Drs. Murrell and Westgate, Thomas Sullivan, M.S., Leo Jablonski, M.S., and Patricia Cramer, R.T.T. will be transporting the sources. Their training includes all items in 10 CFR 19.12, they will all be monitored for exposure to radiation and will follow the safety and emergency procedures in handling radioactive material. (See attachment 7.3.2, 7.3.3.)
b. The sealed sources will be locked to secure against unauthorized removal both while the sources are in the safe at Mid-Missouri Medical Foundation and during transport in the shielded container.
8. The reason for this request is that both Charles E. Still Hospital and Memorial Hospital want the ability to do implants at their hospitals but the projected number of cases per year does not make it cost effective to individually purchase the supply of cesium capsules necessary to do such implants. Mid-Missouri Medical Foundation has offered to purchase the radioactive material and to store and transport the material so that these local hospitals can do implants.
9. Letters of concurrence from both hospital administrations are attached.
10. A log book will be maintained at the Mid-Missouri Medical Foundation and each hospital's nuclear medicine department to account for all sources: location of sources, patient's name, the number and activity of the sources, the date and time of insertion and removal of sources, and the initials of the person transporting the sources and the authorized user. (See attachment 9.1.1 for procedures.)
- 11 & 12. A general description of a typical transfer follows:
Dr. Murrell or Dr. Westgate (authorized users) will initiate the transfer by telling the physicist or chief technologist what material and amount he has decided to use for the implant. One of the physicists (Mr. Sullivan or Mr. Jablonski) or the chief technologist (Mrs. Cramer) will implement the transfer by loading the appropriate sources into the shielded container, log the sources out, and place the container in the trunk or back compartment of the transport vehicle. The vehicle will be placarded with a radioactive material sign and a calibrated

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survey meter will accompany each transport. Arriving at the receiving hospital, the shielded container will be transported to the nuclear medicine department where the log book will be completed. The nuclear medicine technologist will verify the number of sources and activity coming into the hospital. The container will then be immediately transported to the implant patient's room. One of the movable lead bed shields will be placed next to an outside wall and the sources will be loaded into the after loading source carriers with the bed shields used for shielding. The source carriers will then be placed into the patient. An area survey with the bed shields in place will be conducted and the "Nursing Instruction" sheet and radioactive material warning sign will be placed on the patient's door. After removal, the reverse process will happen: sources locked back into the shielded container, the container transported to nuclear medicine for log out and inventory, the container placed into the vehicle rear compartment, transported back to the Mid-Missouri Medical Foundation and sources logged in and locked into storage safe.

13. A large warning tag will be placed on the handle of the shielded lead container used for transporting the sources. It will list the RSO, the radiation oncologists, physicists, and chief technologist's names and phone numbers to be notified in an emergency. Also listed will be the isotope amount and number of sources being transported. In case of accidents, the transporter will always have a calibrated survey meter during the transport so that the sealed sources can be found if they are lost during the accident. If the transporter is incapacitated during an accident, the person(s) notified on the warning tag will bring a calibrated survey meter to the scene of the accident. Also, the Missouri Highway Patrol will be listed on the tag to be notified in case of an accident. The Highway Patrol carry survey meters with them and from the radioactive placard on the vehicle and/or the warning sign on the transport container, they will ascertain the need to survey for possible lost sources.
14. All vehicles used for transporting materials will be surveyed after each transfer to show that all sources were removed.
15.
 - a. Mr. Sullivan or his designate, Leo Jablonski, will spend one day per week at Mid-Missouri Medical Foundation checking patient charts, calibrating the treatment unit, and performing the duties of the RSO.
 - b. The maximum amount of time it will take Mr. Sullivan or his designate, Leo Jablonski, to respond to an emergency involving radioactive materials is 45 to 60 minutes depending on time of day. They both live and work in Columbia, Missouri about 30 miles from Jefferson City. Both of the physicists listed above, carry wide-area beepers for quick notification.

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15. c. Mr. Sullivan is currently RSO for Boone Hospital Center in Columbia, Missouri. He will be spending a minimum of two days per month at Mid-Missouri Medical Foundation and is available (except for vacations) on a day-to-day basis. Since Mid-Missouri Medical Foundation will only be licensed for material in 10 CFR 35.400, we feel that he will have ample time to perform the duties of the RSO. We have attached a curriculum vitae on Leo Jablonski, M.S., who will serve as the designate to the RSO when Mr. Sullivan is unavailable.
16. Mid-Missouri Medical Foundation is not a "medical institution" and will only store brachytherapy sources incident to transfer to Charles E. Still Hospital or Memorial Hospital.
17. We have a Victoreen Model 471 ionization survey meter with minimum range of 0 to 1 mR/hr and maximum range of 300 R/hr. As a back-up, we have access (Boone Hospital) to a Victoreen Model 450 ion chamber survey meter and another Victoreen Model 471.
18. Our transport container will be a 2" thick lockable lead container. It will have radioactive material warning stickers on all sides of the container. A separate warning tag will be attached to the handle which will give the isotope name, activity, number of sources, and transport index. The container dimensions are cylindrical in nature: 5 1/2" in diameter, 7" in height, and 2" thick lead.

LEO E. JABLONSKI
1120 W. Stewart Road
Columbia, MO 65203

JOB TITLE: Medical Physicist

EMPLOYMENT HISTORY

1987 - Present	Medical Physicist, Boone Hospital Center, Columbia, Missouri
1983 - 1987	Health Physicist - University of Missouri-Columbia, Health Physics Services
1979 - 1983	Health Physicist - Nebraska Department of Health, Division of Radiological Health, Lincoln, NE

EDUCATION

M.S., Nuclear Engineering - University of Missouri-Columbia, 1987
B.S., Life Sciences - University of Nebraska-Lincoln, 1979

TRAINING COURSES

"Health Physics and Radiation Protection Course", conducted at Oak Ridge Associated Universities, Oak Ridge, Tennessee, 1980, ten week course sponsored by the Nuclear Regulatory Commission.

"Cobalt Teletherapy Calibration Course", conducted at the M.D. Anderson Hospital and Tumor Institute, Houston, TX, April 1983, three day course sponsored by the Nuclear Regulatory Commission.

"Medical Use of Radionuclides", conducted at the Sloan Kettering Cancer Institute, New York City, March 1981, five day course sponsored by the Nuclear Regulatory Commission.

"Routine Compliance X-Ray Testing Procedures", conducted by the Food and Drug Administration's Bureau of Radiological Health, Kansas City, MO, June 1981.

MEMBERSHIPS

Health Physics Society

Mid-America Chapter of the Health Physics Society
(Served as Councilman from 1984-1986)

Patty L Cramer

Patricia L. Cramer
 P.O. Box 12
 Centertown, Missouri 65023
 Home - 314-584-3723
 Work - 314-893-5252

1989

Employment goal

To enhance my professional expertise in the field of Radiation Oncology, and to gain knowledge of related areas.

Education

1965 - graduated Jefferson City Senior High School
 1966 - attended Lincoln University, Jefferson City, Mo.
 1966 to 1968 - completed Radiologic Tech. Program at Mallinckrodt Inst. of Technology, St. Louis, Mo.
 1970 to 1971 - completed Radiation Therapy Program, Univ. of Missouri, Columbia, Mo.

History

1970 - 1972 - Staff technologist in Radiation Therapy, University of Mo. Hospital & Clinics, Columbia, Mo.
 1972 - 1975 - Bone & Joint Clinic, Jeff. City, Mo.
 1975 - 1988 - Senior Technologist, Radiation Therapy, University of Mo. Hospital & Clinics, Columbia, Mo.
 May 1988 - Sept. 1988 - Staff tech. in Radiation Oncology & CT, Boone Hospital Center, Columbia, Mo.
 Nov. 1988 to present - Supervisor, Radiation Therapy, Mid-Mo. Medical Foundation, Jefferson City, Mo.

Achievements

1968 & 1970 - received registration certifications in Radiologic Technology and Radiation Therapy.
 1976 - promoted to Senior Technologist, Radiation Therapy, University of Mo. Hospital & Clinics
 1976 - 1981 - served as clinical instructor in Radiation Therapy for the School of Allied Health, Univ. of Mo.
 1980 - 1981 - served as interim Chief Technologist, Radiation Therapy, University of Mo. Hospital & Clinics
 1987 - awarded Staff Member of the Month, Univ. of Mo.

Experience

AECL Theratron 80 Cobalt-60 unit
 10 MV Siemens Linear Accelerator
 Picker Cobalt-60 unit
 Toshiba Therapy Simulator
 AECL Eldorado Cobalt-60 unit
 22 MV Betatron Accelerator
 Van Guard Orthovoltage generator
 2 MV Van de Graff Generator
 Picker 120 KV Superficial therapy unit
 Linde Hyperthermia unit
 Phillips 250 KV Orthovoltage unit
 Theratron 780 Cobalt-60 unit
 Artronix Therapy computer system
 Huestis block cutter
 Lunar Dual Photon bone absorptiometry unit
 Siemens Dual Photon Linear Accelerator

References

See attached page

patty l. cramer

H.J. Murrell, M.D., F.A.C.R., Director, Radiation Therapy,
Boone Hospital Center, Columbia, Mo.
Mary Lee, M.D. Radiation Therapy, Ellis Fischel State
Cancer Hosp., Columbia, Mo.
Marc Edwards, Ph.D., Radiolical Physicist, Bethany
Medical Center, 51 North 12th St.,
Kansas City, Ks. 66102
Robert Hurst, Ph.D., Director of Radiological Services,
Boone Hospital Center, Columbia, Mo.
Phillip Lee, Ph.D., Director of Health Physics, Univ.of
Missouri Hospital & Clinics, Columbia, Mo.
Thomas Sullivan, M.S., Medical Physicist, Boone Hosp.
Center, Columbia, Mo.

Additional references available upon request