



# LUTHERAN MEDICAL CENTER

2609 FRANKLIN BOULEVARD • CLEVELAND, OHIO 44113 • PHONE: 216/696-4300

May 23, 1979

Ms. Patricia C. Vacca  
License Management Branch  
Division of Fuel Cycle and Material Safety  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: Your control number 98455

Dear Ms. Vacca,

This is in reply to your letter dated April 13, 1979, concerning our application for a renewal of our license number 34-01869-02. In the following, the additional information that you requested is numbered according to the items in your letter.

ITEM 1. We did not acquire the AECL Theratron 80 teletherapy unit and source listed in our license. Currently, we possess only the AECL Theratron F unit.

ITEM 2. Please see the attached statements on behalf of Dr. R. Guillermo made by Dr. J. Bosworth, Dr. M. Rollins and others.

ITEM 3. Please see the attached copy of our revised emergency instructions.

ITEM 4. We have been assured by the AECL that an output of 100 Rmm can be obtained from the Theratron 780 unit using a source of about 5250 Ci, which is less than the requested possession limit of 6000 curies per source.

ITEM 5. Arrangements were finalized to lay an additional 1½" of steel on the floor above the Theratron 780 facility. Please see the attached copy of the letter from the construction company. The job was completed on May 16, 1979.

RECEIVED

MAY 29 AM 11 39

U.S. NUCLEAR REGULATORY COMMISSION  
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY  
WASHINGTON, D.C. 20555

MAY 09 1979

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The following relates to the survey of the existing AECL Theratron F facility.

ITEM 6. An electrical stop has been provided so that the beam cannot be turned on if the sourcehead is tilted forward more than  $50^{\circ}$  from the vertical. For a tilt angle of  $50^{\circ}$  and with the collimator opened to its maximum extent, and without any phantom in the beam, the highest exposure rate measured outside Wall D in the courtyard is less than 0.2 mR/h. The measurement was made by P. S. Rao, consulting physicist, on May 8, 1979, with a Victoreen 440 survey meter, serial number 697, last calibrated on April 27, 1979 by R. B. Adams in accordance with the procedure described and approved in NRC Byproducts License Number 34-05469-01.

ITEM 7. The apparent discrepancy between the measurement of May 25, 1978 and the other measurements is because the former was made with a phantom in the primary beam. The measurement of January 25, 1979 was made without a phantom, and yielded a value of 300 mR/h, which agreed with the survey of July 27, 1964.

ITEM 8. With the sourcehead tilted backward to  $20^{\circ}$  from the vertical, the maximum radiation levels measured in adjacent areas are as follows:

WALL	BEAM ABSORBER	PRIMARY-P OR SCATTER-S	SSD	GANTRY ANGLE	SWIVEL ANGLE	TILT ANGLE	mR/h
A	No	S( $90^{\circ}$ )	70cm	0	0	$-20^{\circ}$	0.2
B	No	S( $90^{\circ}$ )	100cm	$300^{\circ}$	$60^{\circ}$ cw	$-20^{\circ}$	0.2
C	No	S( $70^{\circ}$ )	100cm	$300^{\circ}$	$60^{\circ}$ cw	$-20^{\circ}$	1.5
D	No	S( $90^{\circ}$ )	100cm	$60^{\circ}$	$60^{\circ}$ ccw	$-20^{\circ}$	0.4

The scatterer was a stack of lucite sheets 30cm x 20cm x 20cm. The measurements were made by P. S. Rao on May 8, 1979 with the instrument described above in Item 6.

ITEM 9. The area next to Wall C is an Air Conditioning Equipment Room. A plan of the room is attached. Only maintenance personnel have access to the room.

The area will be maintained as an unrestricted area. We believe it meets the requirements of 10CFR20.105(b) for the following reasons:

ITEM 9 (continued)

a) Under the most adverse conditions (described in b below), the radiation level at the point marked P1 on the attached plan is 2 mR/h. At all points to the left of P1 the level is under 2 mR/h. During routine daily visits to the room, the maintenance personnel remain to the left of P1, and do not have occasion to go beyond P1 towards Wall C of the teletherapy room. Therefore, the condition of Section 20.105(b)(1) is satisfied.

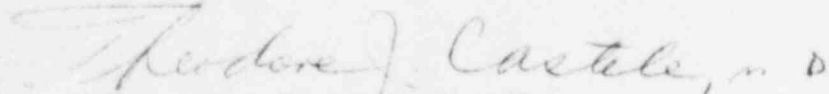
b) The most adverse condition occurs when the gantry is rotated clockwise  $45^{\circ}$  and the sourcehead is swiveled towards Wall C until the primary beam makes an angle of  $45^{\circ}$  with the vertical. With no phantom in the beam the highest exposure rate at P2 immediately outside Wall C and in the path of the primary beam is 90 mR/h. This particular orientation has never been used. During the operation of the unit during the past ten years, treatments have not been made with the beam directed away from the beam absorber and toward Wall C. It is anticipated that in the future such use will be limited to a maximum of 1 hour a week. The maximum exposure outside Wall C is therefore 90 mR/week which falls within the limit specified in Section 20.105(b)(2).

If the above reasons appear insufficient to maintain the area as an unrestricted area according to the conditions of Section 20.105(b), then we request an exemption according to Section 20.105(a), based on the following information.

The area near P2 is visited by maintenance personnel no more than four times a year, and each time for no more than fifteen minutes. If the same person makes the visit each time (an unlikely event), his maximum expected exposure is 90 mR per year, which is under the limit of 500 mR specified in Section 20.105(a).

If further information is required, please do not hesitate to contact us or Dr. P. S. Rao, our consulting physicist. His telephone number is (216) 444-1295.

Sincerely,



Theodore J. Castele, M.D.  
Director of Radiology

CASE WESTERN RESERVE UNIVERSITY

Cleveland, Ohio 44106

University Hospitals  
2065 Adelbert Road  
(216) 444-3104

Department of Radiology  
DIVISION OF RADIATION THERAPY

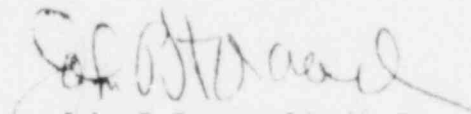
John P. Storaasli, M.D., Director  
Louis J. Novak, M.D.  
Levona W. Olmsted, M.D.

May 18, 1979

TO WHOM IT MAY CONCERN -

I have known Dr. Reynaldo Guillermo for two years as a  
radiotherapist at Lutheran Medical Center.

He has proved to be a very capable radiotherapist and  
during this two year period he has been very proficient  
with TeleCobalt-60 therapy.



John P. Storaasli, M. D.  
Professor of Radiology

JPS:rt

ITEM #2  
5-23-79



THE HOSPITAL OF THE ALBERT EINSTEIN COLLEGE OF MEDICINE

A DIVISION OF

MONTEFIORE HOSPITAL AND MEDICAL CENTER

1825 EASTCHESTER ROAD, BRONX, NEW YORK 10461 / TELEPHONE: 212-430-2000

May 14, 1979

Re: Reynaldo Guillermo, M.D.

To Whom It May Concern:

Dr. Guillermo has spent three years as a resident in my department. During that time, he had extensive experience using a rotational Cobalt-60 unit as well as an 8-MeV Linear Accelerator with electron beam capabilities. He is fully aware of the capabilities and limitations of both machines.

I recommend him for licensure in the use of the above machines without any hesitancy.

Sincerely,

Jay L. Bosworth, M.D.  
Acting Director,  
Radiotherapy Department

JLB:rk

ITEM #2  
5-23-79



11311 SHAKER BOULEVARD / CLEVELAND, OHIO 44104 / (216) 368-7000

TO CONTACT THE WRITER,  
PLEASE CALL 368-7093.

May 4, 1979

To: Whom It May Concern

Re: Reynaldo Guillermo, M.D.

Dear Sirs:

I have been asked by Dr. Guillermo to comment on his ability and qualifications as a radiation therapist.

Dr. Guillermo joined me in the practice of radiation therapy at Lutheran Medical Center in July, 1977. We practiced together until I left that institution in the Fall of 1978. During that period of time, I had a good opportunity to work with and observe Dr. Guillermo. In my opinion, he readily lived up to the fine recommendations given him by the physicians from his training institution--Albert Einstein. At that it appeared to me that Dr. Guillermo had a good grasp of the basic fundamentals required in the good practice of radiation oncology.

I would not hesitate to recommend Dr. Guillermo as a fine physician and a gentleman.

Sincerely,

Marvin Rollins, M.D.  
Director, Radiation Oncology

MR:lk

ITEM #2  
5-23-79

ALBERT EINSTEIN COLLEGE OF MEDICINE  
OF YESHIVA UNIVERSITY

1300 MORRIS PARK AVENUE, BRONX, N. Y. 10461 • CABLE: EINCOLLMED, N. Y.

DEPARTMENT OF RADIOLOGY

PHONE: (212) 430-2000

5/13/77

M. Rollins, M.D.  
Chief,  
Radiation Therapy and  
Nuclear Medicine Section  
Lutheran Medical Center  
2609 Franklin Blvd.  
Cleveland, Ohio

Dear Dr. Rollins:

Dr. Guillermo will complete his three-year residency training program in Therapeutic Radiology at the Albert Einstein College of Medicine on June 30, 1977. He entered our program after having completed a full residency training program in Diagnostic Radiology. He was very highly recommended to us.

His work as a physician and as a radiotherapist during these three years has been of high quality. He is of high moral character and a very concerned physician. He is well liked by his patients as well as the professional staff.

I highly recommend him for an appointment to your staff.

Sincerely yours,



N. A. Ghossein, M.D.  
Chief of Radiotherapy

NAG:pp

ITEM #2  
5-23-79



THE HOSPITAL OF THE ALBERT EINSTEIN COLLEGE OF MEDICINE

A DIVISION OF

MONTEFIORE HOSPITAL AND MEDICAL CENTER

1825 EASTCHESTER ROAD, BRONX, NEW YORK 10461 TELEPHONE: 212-430-2000

May 13, 1977

M. Rollins, M.D.  
Chief, Radiation Therapy  
& Nuclear Medicine  
Lutheran Medical Center  
2609 Franklin Blvd.  
Cleveland, Ohio 44113

Re: Dr. Reynaldo F. Guillermo

Dear Dr. Rollins:

I have known Dr. Guillermo for the past three years while he has been a resident in my department. He has become quite knowledgeable in the field of Oncology, in general, and Radiation Therapy in particular. He should be able to manage tumors without any difficulty.

Dr. Guillermo has a pleasant personality and I am sure he will get along well with the other members of your section as well as with the Hospital Staff members. He would be an asset to your Institution.

Sincerely,

Jay L. Bosworth, M.D.  
Assoc. Attending  
Radiation Therapy Dept.

JLB:rk

ITEM #2  
5-23-79

ALBERT EINSTEIN COLLEGE OF MEDICINE  
OF YESHIVA UNIVERSITY

1575

1300 MORRIS PARK AVENUE, BRONX, N. Y. 10461 • CABLE: EINCOLLMED, N. Y.

DEPARTMENT OF RADIOLOGY

PHONE: (212) 430-2000

May 12, 1977

M. Rollins, M.D.  
Chief, Radiation Therapy and  
Nuclear Medicine Section  
Lutheran Medical Center  
2609 Franklin Road  
Cleveland, Ohio 44113

Dear Dr. Rollins:

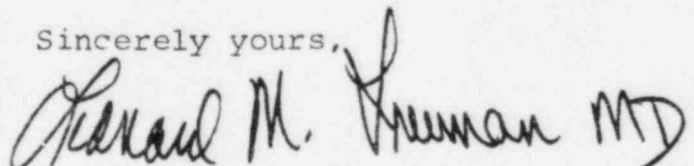
I am writing this letter on behalf of Dr. Reynaldo Guillermo's application for a position at your institution.

Dr. Guillermo has completed a full residency in Diagnostic Radiology at St. Peter's Hospital in Albany and is currently completing a residency in Therapeutic Radiology here at the Albert Einstein College of Medicine. I got to know him particularly well during his 3 month rotation on the Nuclear Medicine Service.

He is a very pleasant, agreeable and dependable individual, who is well liked by his peers. He showed considerable interest in Nuclear Medicine and very rapidly gained competence in understanding and interpreting the conventional imaging procedures. He did exhibit a very inquisitive mind concerning the clinical efficacy of Nuclear Medicine procedures and spent a fair amount of time seeking correlation and corroborative studies in many patients.

I feel that he would be a valued addition to your Radiation Therapy and Nuclear Medicine Department.

Sincerely yours,



Leonard M. Freeman, M.D.  
Associate Professor of Radiology

LMF/jr

ITEM #2  
5-23-79

TELETHERAPY UNIT EMERGENCY PROCEDURE

I. If the patient is ambulatory, instruct him to get off the table and leave the room.

II. If the patient is not ambulatory:

1) If the patient can be removed from the room, enter the room and avoiding exposure to the useful beam, pull the treatment table as far away from the useful beam as possible, transfer the patient to a stretcher and remove him from the room.

2) If the patient cannot be removed from the room:

a) Operate the teletherapy unit from the console and direct the primary beam of radiation away from the patient toward a safe barrier.

b) If the primary beam of radiation cannot be moved off the patient, enter the room, locate the device for manually turning off the primary beam of radiation and turn the unit off.

TO MANUALLY CLOSE THE EMERGENCY SHUTTER PERFORM THE FOLLOWING:

1. Remove large thumb screw from front of head.
2. Remove steel rod clipped to top of head.
3. Insert rod into thumb screw and thumb screw hole and push emergency shutter closed.

CAUTION: STAY OUT OF DIRECT BEAM AT ALL TIMES!

III. Close the door and secure the room against unauthorised entry.

IV. Telephone: Dr. R. Guillermo (ext. 467)  
Dr. P. S. Rao (ext. 469 or 444-1295)  
General Electric Company (362-4351)

JENNINGS & CHURELLA CONSTRUCTION COMPANY  
ENGINEERS AND CONTRACTORS

NEW LONDON OHIO 44851/419-929-1595

ROYCE M. JENNINGS/PRESIDENT  
JOHN H. CHURELLA/SECRETARY-TREASURER

MAY 1, 1979

LUTHERAN MEDICAL CENTER  
2500 FRANKLIN BLVD.  
CLEVELAND, OHIO 44113

ATTENTION: JOHN CARROLL

RE: STEEL PLATE PROTECTION  
CONFERENCE ROOM 120  
SCHOOL OF NURSING

GENTLEMEN:

THIS WILL ACKNOWLEDGE YOUR AUTHORIZATION TO PROCEED WITH THE  
INSTALLATION OF THE 10" SQUARE STEEL PLATE PROTECTION IN THE FLOOR OF  
CONFERENCE ROOM 120 AS OUTLINED IN MY LETTER DATED APRIL 10, 1979.

THIS WORK WILL BE COVERED BY YOUR PURCHASE ORDER NUMBER 39833.

MATERIALS ARE BEING ORDERED AND WE WILL CO-ORDINATE THIS WORK  
WITH YOUR OFFICE.

THANK YOU FOR THIS VALUED ORDER.

SINCERELY,

JENNINGS & CHURELLA  
CONSTRUCTION COMPANY

*Bradley C. Koch*  
BRADLEY C. KOCH

CK:113

Item #3  
5-10-79

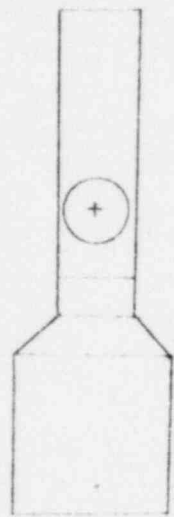
Radiotherapy  
Interim

Courtyard

D

Air Conditioning  
Equipment Room

C



A

Control

Emergency  
Fire Exit



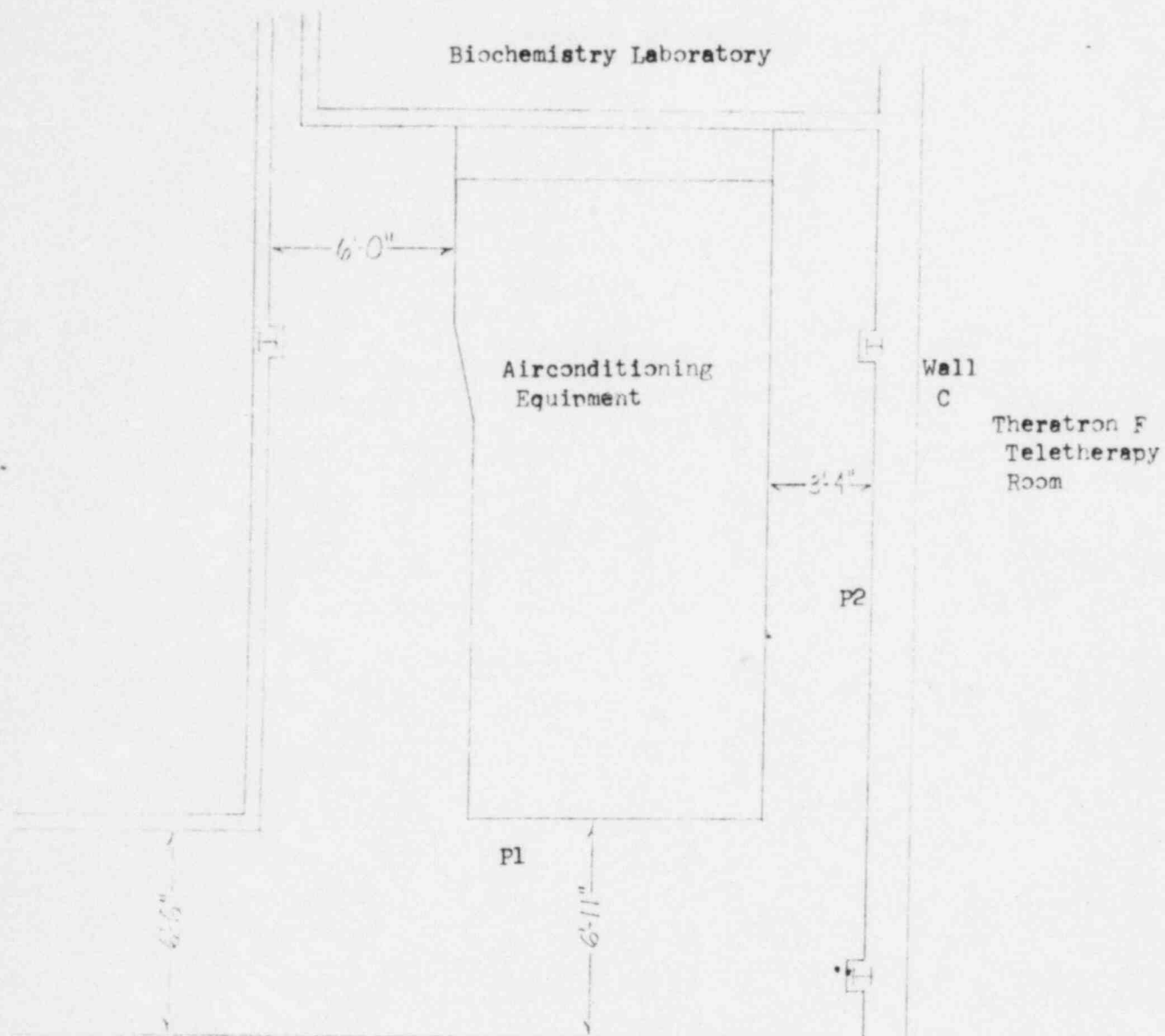
B

X-Ray Room

Plan of Cobalt 60 Teletherapy Room at Lutheran Medical Center,  
Cleveland, Ohio.

Scale: Approx. 1:60.

ITEM #6, 7 & 8  
5-10-70



Plan of airconditioning equipment room at Lutheran Medical Center, Cleveland, Ohio.