



Hamot Medical Center

201 State Street • Erie, Pennsylvania 16550 • 814/455-6711

February 9, 1987

U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Attention: Dr. John Glenn

Dear Sir:


Please find enclosed a renewal application for our Cobalt 60 teletherapy unit (license 37-00444-03) based upon the contents outlined in pages L-3 through L-5 of the USNRC Draft Regulatory Guide for Medical Teletherapy Programs (second draft previously issued as TM-608-4).

We would like to also bring to your attention that the cobalt teletherapy unit discussed in this license application is scheduled for removal within (1) year. In fact, its removal may occur as soon as 3 to 6 months following the expiration of our current teletherapy license (March 31, 1987).

Also please find enclosed a check in the sum of \$350.00 as required by 10CFR Part 170.

Thank you for your attention in this matter.

Sincerely,


John T. Malone
Vice President

scn

Enclosures

Log	Feb 17
Remitter	
Check No.	26042
Amount	\$ 350
Fee Category	7A
Type of Fee	Renewal
Date Check	3/2/87
Date Completed	3/2/87
By:	S. Kimberly

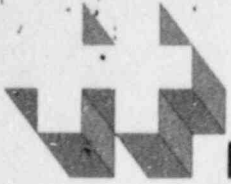
"OFFICIAL RECORD COPY"

ML18

106811

8801250050 870819
REG1 LIC30
37-00444-03 PDR

FEB 20 1987



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COBALT TELETHERAPY LICENSE RENEWAL

The following information is submitted in accordance in the outline suggested by the "Guide for the Preparation of Applications for Licenses for Medical Teletherapy Programs". (Second draft previously issued as TM-608-4 pages L-3, L-4 and L-5).

- A) The license to be renewed is 37-00444-03.
- B) The name of the licensee is the HAMOT MEDICAL CENTER.
- C) Address of the HAMOT MEDICAL CENTER
201 State Street
Erie, PA 16550
- D) Teletherapy unit is located at the Hamot Medical Center on the ground floor of the South Complex. Its location remains unchanged from previous license applications.
- E) It is verified that the location of the teletherapy unit is the same as described in the letter dated October 9, 1985 and no changes have been made in the mechanical limits of this unit or any other operation that can affect radiation levels and surrounding areas. No changes have been made which can affect the patient viewing system.
- F) The electrical and mechanical stops that limit the use of the primary beam of radiation are still installed and continue to operate as described in the last survey reports submitted to the NRC (letter dated October 9, 1985).
- G) We hereby confirm that the current authorizations in items 6 through 9 of the license (regarding radionuclide, description of sealed sources and teletherapy unit, maximum position limit, and authorized use) are correct.
- H) We hereby verify that the list of authorized users in condition 12 of the license is correct.
- I) The Radiation Safety Officer (RSO) for the Hamot Medical Center including the teletherapy program is Jack Goodrich, M.D. Dr. Goodrich is a full time staff physician who is the Chief of the Division of Nuclear Medicine. He is a Board Certified radiologist and is an approved user for Groups I through VI radioactive material under Hamot Medical Center license 35-00444-02. (See attached Supplement A)

J) Item 8 - Training

We have adopted the training program described in the appendix D of Draft Regulatory Guide FC-414-4.

Item 10.5 - Operating Procedures

Our current operating procedures for the Cobalt Teletherapy unit include as a minimum:

1. The teletherapy unit and console must be secured when unattended.
2. When the therapy technologist, radiotherapist, or physicist exits the teletherapy room the last action will be to verify that the room is unoccupied except for the patient prior to operating the teletherapy unit and allowing the primary beam to be turned on.
3. Safety devices are checked for proper operation on a daily basis. This includes the timer check, interlock check, and radiation monitor. These checks are performed by the teletherapy technologist as a morning activity prior to the use of the teletherapy unit. Examples of the data sheets are enclosed.

Malfunctions or defects are promptly corrected. The dates of all checks are recorded. The dates of corrected defects are recorded. All records are maintained for 2 years.

Item 10.6 - Emergency Procedures

We will post and follow the emergency procedures enclosed.

K) 10.1 - Film Badges

We have established and agreed to follow written procedures for personnel monitoring that include as requirements the criteria specified in Item 10.1.2 of Regulatory Guide FC-414-4.

10.2 - Survey Meters

We, the Hamot Medical Center, will have available for use from the time we begin operation, the instrumentations specified in Item 10.2.2 of Draft Regulatory Guide FC-414-4.

10.3 - Calibration of Survey Meters

We, the Hamot Medical Center, will calibrate our own survey meters in accordance with the written procedures established in Item 10.3.4 of Draft Regulatory Guide FC-414.4.

L) We hereby verify that there have been no changes other than those contained herein in the information previously submitted to the NRC regarding other aspects of the Radiation Safety Program or the teletherapy unit.

- M) The teletherapy license is issued in the name of the medical institution.
1. We hereby verify that the Radiation Safety Committee includes individuals specified in the current paragraph of 35.11 (b) of 10CFR35.
 2. We hereby verify that the Radiation Safety Committee's duties and responsibilities include teletherapy.
 3. We hereby verify that records on the membership of the Radiation Safety Committee will be maintained until the NRC terminates the Hamot Medical Center teletherapy license. These records will demonstrate that even if committee membership is changed, that the committee will continue to include those individuals specified in paragraph 35.11 (b).
- N) We continue to operate under the ALARA Program with regard to the teletherapy license. This ALARA Program was outlined in a letter sent to the NRC on February 2, 1982 (signed by Mr. John T. Malone).
- O) Although a source change has been made within the last 2 years, the required radiation survey and additional information has been forwarded to the NRC.
- P) We do not wish at this time to add any authorized users on the Cobalt teletherapy license.

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER Jack K. Goodrich, M.D.	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE PA, NC, LA, CA & TE
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3. CERTIFICATION		
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Board of Radiology	Radiology	June, 1961
American Board of Nuc.Med.	Nuclear Medicine	June, 1973
American Board of Radiology	Diagnostic Radiology with Sp. Comp. in Nuc. Rad	December, 1977

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	Alton Ochsner Medical Fd.	50	6
b. RADIATION PROTECTION	"	30	6
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	"	10	-
d. RADIATION BIOLOGY	"	30	6
e. RADIOPHARMACEUTICAL CHEMISTRY	"	20	6

5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)				
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
All used in clin. Nuclear Medicine	Curies ,	Alton Ochsner Med. Fd. Univ. of Mississippi Duke Univ. Medical Center (Prof. & Chr., Nuc. Med. Div)	1957-1959 1960-1965 1965-1979	Clinical & Res. Clinical & Res. Clinical & Res.

PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS			KEY TO COLUMN C PERSONAL PARTICIPATION SHOULD CONSIST OF: 1-Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage. 2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data. 3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.
FULL NAME			
Jack K. Goodrich, M.D.			
STREET ADDRESS			
CITY	STATE	ZIP CODE	

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D
I-131 or I-125	DIAGNOSIS OF THYROID FUNCTION	over 1000	
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME	over 1000	
	LIVER FUNCTION STUDIES	over 500	
	FAT ABSORPTION STUDIES	over 500	
	KIDNEY FUNCTION STUDIES	over 500	
	IN VITRO STUDIES	over 1000	
OTHER			
I-125	DETECTION OF THROMBOSIS	over 100	
I-131	THYROID IMAGING	over 1000	
P-32	EYE TUMOR LOCALIZATION	over 50	
Sr-75	PANCREAS IMAGING	over 20	
Yb-165	CISTERNOGRAPHY	over 200	
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES	over 500	
OTHER			
Tc-99m	BRAIN IMAGING	over 1000	
	CARDIAC IMAGING	over 1000	
	THYROID IMAGING	over 1000	
	SALIVARY GLAND IMAGING	over 10	
	BLOOD POOL IMAGING	over 1000	
	PLACENTA LOCALIZATION	over 50	
	LIVER AND SPLEEN IMAGING	over 1000	
	LUNG IMAGING	over 1000	
	BONE IMAGING	over 1000	
OTHER			

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES	over 50	
P-32 (Colloidal)	INTRACAVITARY TREATMENT	over 300	
I-131	TREATMENT OF THYROID CARCINOMA	over 50	
	TREATMENT OF HYPERTHYROIDISM	over 1000	
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
	TELE THERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR	over 1000	
Sn-113/ In-113m	GENERATOR	1	
Tc-99m	REAGENT KITS	over 1000	
Other			

3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

This number is unknown and irrelevant at present. Dr. Goodrich has been Professor and Chairman of the Nuclear Medicine Division at Duke University for 14 years and for the previous 6 years he was in charge of the Nuclear Medicine Section at the University of Mississippi. He is in charge of the Duke Univ. Broad Med. License, N. Carolina #32085-3 and Durham, NC V.A. Hospital Lic. # NRC 32-01134-01.

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:		6. PRECEPTOR'S SIGNATURE	
a. NAME OF SUPERVISOR		7. PRECEPTOR'S NAME (Please type or print)	
b. NAME OF INSTITUTION			
c. MAILING ADDRESS			
d. CITY		8. DATE	
e. MATERIALS LICENSE NUMBER(S)			

FORM NRC-313M-SUPPLEMENT B
(8-78)

COBALT UNIT

WHEN DONE	BY WHOM	TEST	M	T	W	T	F	COMMENTS
D	T	1. Operation of hand control						
D	T	2. Operation of patient table						
D	T	3. Motion of collimators and trimmers.						
D	T	4. Lasers and O.D.I.						
D	T	5. Warning lights and Radiation Monitor						
D	T	6. Timer shut-off						
W	T	7. Inspection of accessories						
W	T	8. Door Interlock						
W	CT	9. Radiation and light field coincidence, field symmetry and flatness and dial readings and dimensions.						
Q	CT	10. Emergency Switch Operation						
Q	CT	11. Special Modes (rot. arc, skip)						
W	CT	12. Isocenter of Optical field						
B	CT	13. Instruction on operation of manual source return.						

EMERGENCY PROCEDURES FOR BEAM CONTROL FAILURE OR MALFUNCTION

If the light signals or beam-on monitor indicate that the beam control mechanism has failed to terminate the exposure at the end of the preset time (e.g., if the red light stays on and the green light is off, or if both the red and the green lights stay on for more than a few seconds), the source may still be in the ON position. The following steps are to be carried out promptly and in a calm manner by the Radiation Therapy Technologist:

1. Open the door to the treatment room.
2. If the patient is ambulatory, tell him or her to get off the table and leave the room.
3. If the patient is not ambulatory, enter the treatment room but avoid exposure to the direct beam. Pull the treatment table as far away from the direct beam as possible. Transfer the patient to a stretcher and remove the patient from the room.
4. If it would seem infeasible to get the patient out of the direct beam within a few seconds because of the weight and physical condition of the patient, and considering restraining devices on the patient and the position of the gantry, then do the following:

Using the emergency bar which is hanging on the wall to the left in the entrance-way, push the source-position indicating bar as far back into the source head as possible. Then remove patient from the treatment room.

5. Close the door and secure the area by locking the door to the treatment room or posting a guard at the entrance.
6. Turn off the main switch at the control panel.
7. Notify the radiation therapist and radiation safety officer at once.
8. Conspicuously post a sign on the door to warn others of the problem.

Radiation Therapist _____

Phone No.: On Duty _____ Off Duty _____

Teletherapy Physicist _____

Phone No.: On Duty _____ Off Duty _____

BETWEEN: William O. Miller, Chief
License Fee Management Branch
Office of Administration

John E. Glenn, Chief
Nuclear Materials Section B
Division of Engineering and
Technical Programs

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3/87

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: Hamot Medical Center

Application Dated: 2/9/87

Control No.: 106811

License No.: 37-00444-03

2. FEE ATTACHED

Amount: \$ 350.00

Check No.: 137958-26042

3. COMMENTS

Signed Branda Blatch

Date 2/24/87

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount: 7A \$ 350

2. Correct Fee Paid. Application may be processed for:

Amendment

Renewal ✓

License

Signed S. Kimberly

Date 3/2/87