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April 2, 1985

Region III, Licensing Section
Material Licensing Branch
United States Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RECEIVED

85 APR 17

U.S. NRC
LIC. FEE MON. 8

Re: License #13-18879-01 amendment request.

Dear Sir:

Please amend Item 6a of our license application dated 2-13-80 to include Group VI, Therapeutic Sealed Sources. The maximum possession limit being requested is 1000 mCi. Regulatory Guide 10.8, Rev. #1 dated October 1980 was used in guiding our response to information requested in item 20 of the application. Please see "ATTACHMENT 1".

Also, amend our license to include the name of R. P. Tokars, M.D. as a user of Group VI. For his training and experience see NRC license #13-18881-01 (Memorial Hospital of South Bend, Indiana) on which he is listed and his form 313, Supplements A & B have been previously submitted for review.

If there are any questions concerning this amendment request, contact John D. Scheu, Ph.D. (219) 287-4146. Included is the amendment fee of \$120.00.

Sincerely,

Wesley Davis
Vice-President, Nursing

Enclosures
crp

Applicant	Apr 24 1985
Check No.	072424
Amount/Fee Category	75
Type of Fee	amend
Date Check Rec'd	4/17/85
Received By	[Signature]

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REGION III

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REG3 LIC30
13-18879-01 PDR

CONTROL NO. 78719

ATTACHMENT 1

Item 20. Therapeutic Use of Sealed Sources.

- a. 1,2. See "ATTACHMENT a" for the floor diagram of the seal source storage area. All sealed sources will be stored in such a manner that radiation levels in adjacent unrestricted areas will be less than 2 millirem in any 1 hour and less than 100 millirem in any 7 consecutive days.

This room is considered a restricted area. The room is kept locked when nuclear medicine personnel are not in the area.

3. Unrestricted areas adjacent to the sealed source storage area will be surveyed with a survey meter. This survey will be done at the time of shipment arrival and monthly to assure that the maximum radiation levels stated in 20.105 (b)(1) and (b)(2) of 10 CFR Part 20 are not exceeded.

- b. Sealed sources will be handled behind a L-block for body and eye protection (see attachment b). Twelve inch forceps will be used when handling sources or other special handling appliances will be used when necessary.

After sources are inside appliances, they will be transferred to protective leaded carriers.

Only experienced personnel (radiation oncologist, physicist) will handle sources.

- c. TLD ring badges will be used on the finger of the person handling the sources. TLD rings will be worn toward the palm.

- d. Transportation of sources will be done with the use of appropriate shielding equipment. Examples are, Heyman carrier and cart with Fletcher Suit insert (for after loading), Heyman carrier with cart with Heyman insert (for preloading Heyman capsules), Ernst carrier with cart (for preloading cylinders or needles). See "Attachment d".

- e. A "Source Use and Inventory Log" (see attachment e) will be maintained on each type of sealed source on hand. An entry will be made in the log giving the date the sources were removed, the type and number of sources removed, and the purpose for which they were removed. After use the sources will be returned to storage and an entry will be made in the log of the date and the type and number of sources.

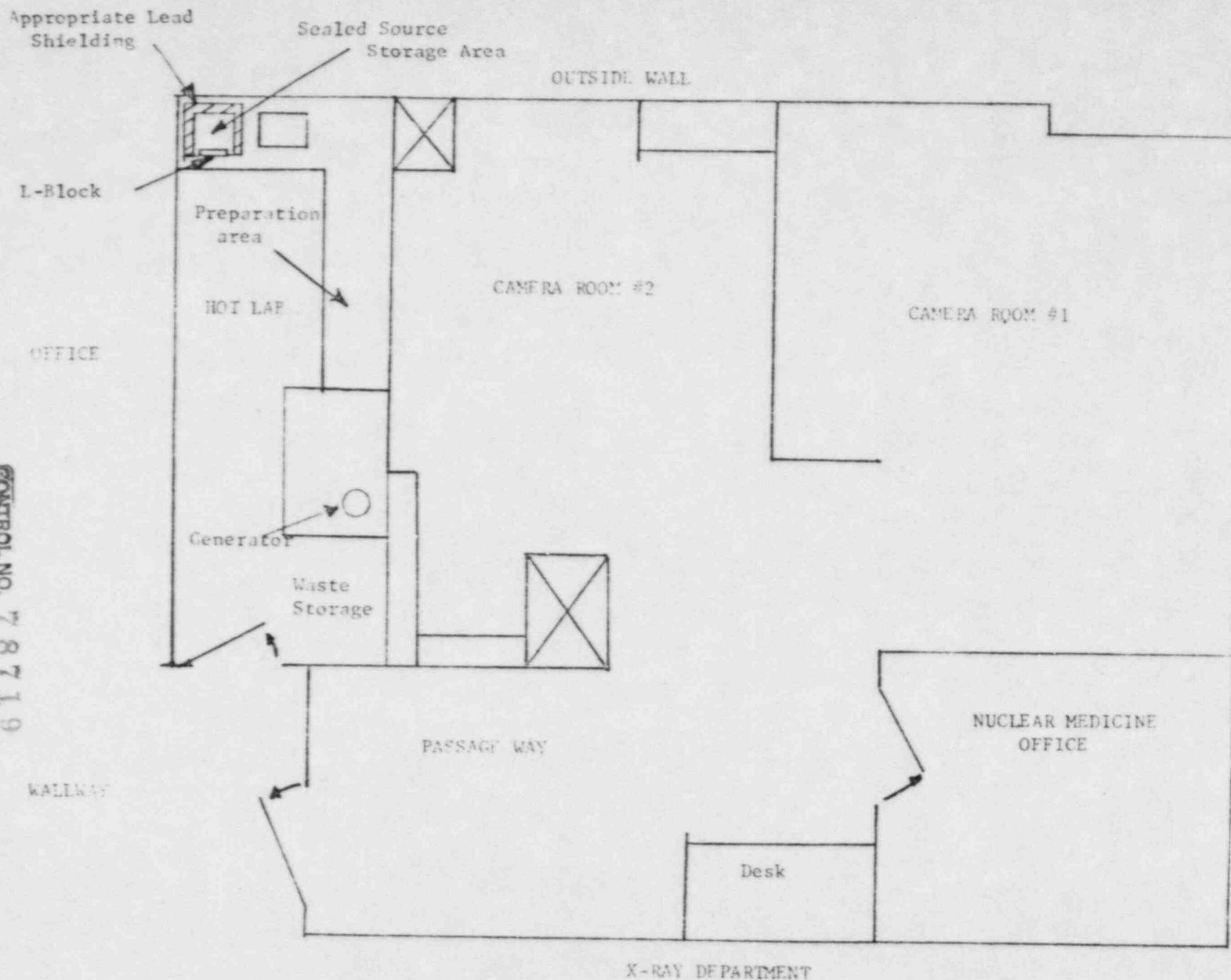
Quarterly inventory checks will also be made and records kept.

- f. Surveys will be performed during the course of patient treatment to assure that radiation levels in unrestricted areas are below 2 millirem in any 1 hour and less than 100 millirem in any 7 consecutive days.

At the conclusion of the therapy, after all sources have been removed and placed back in storage, a survey using a radiation survey meter will be performed of the patient and patient room. This will, also, be done before the patient is discharged to assure that all temporary implant sources have been removed from the patient and from all areas that the patient occupied.

- g. Appendix L of Regulatory Guide 10.8, Rev.#1 dated October 1980 will be followed.

Item 20
1-20-85



CONTROL NO. 78719

ATTACHMENT A
LABORATORY AREA

TABLE TOP SHIELDS

- * Low Cost
- * 1/4" or 1/2" thick shielding available
- * Stainless steel work surface
- * Shipped ready to use, no assembly required

The Table Top Shield eliminates exposure to the technician while working with radioactive material. Antilevered design allows free unobstructed movement while setting up technitium generators, loading syringes, performing radium loading procedures, etc. Unit has a 16" wide x 15" high front wall and a 14" stainless steel working area. Depending on shielding required, two models are available:

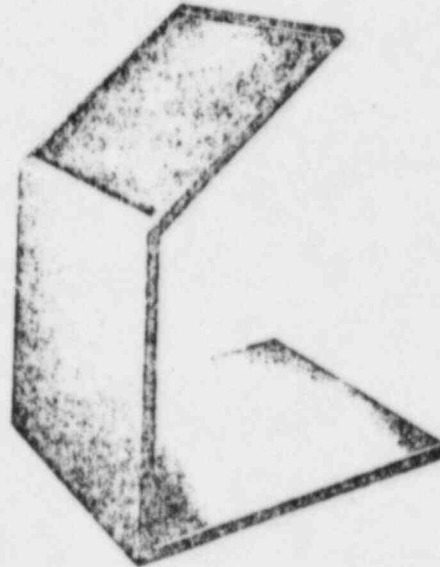
981 has 1/4" thick lead and one piece of 16" x 5/16" thick X-ray plate glass. Weight: 135 lbs.

982 with 1/2" thick lead and one piece of 16" x 1/2" thick X-ray plate glass. Weight: 155 lbs.

Units are finished in a durable baked paint.

Model 981 1/4" Lead

Model 982 1/2" Lead

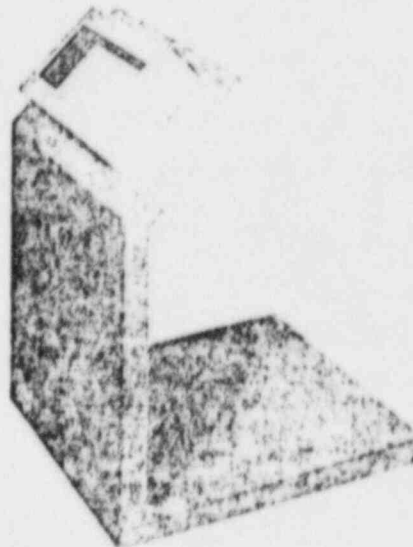


SLIDING SHIELD

MODEL 984

The Sliding Shield is used to minimize exposure to the technician while handling radiopharmaceuticals or radioactive materials. This shield has been designed for maximum technician comfort and unimpeded visibility of the work area. Especially useful when using isotope generators.

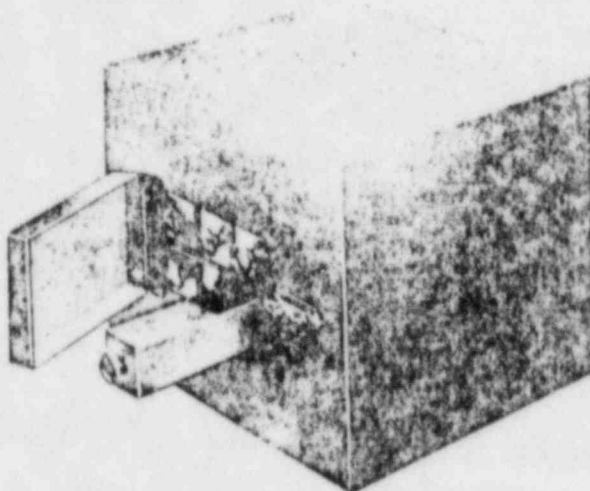
This shield is constructed of 1" thick lead plate in steel. The base containing four nylon rollers (2 plain and 2 grooved) permit effortless sliding of any station. The grooved rollers are mounted on the front lip which serves as a track. A 4" x 8" leaded glass window equivalent to 1/4" lead and a stainless steel spill-proof tray is provided. Overall dimensions are 16" high x 14" wide and the base is 14" x 14". Finished in a durable polyurethane paint. Maximum weight: 250 lbs.



RADIUM AND CESIUM STORAGE SAFE

- Offers maximum protection
- Custom-designed storage drawers available
- Stainless steel drawers
- Keylock & fireproof

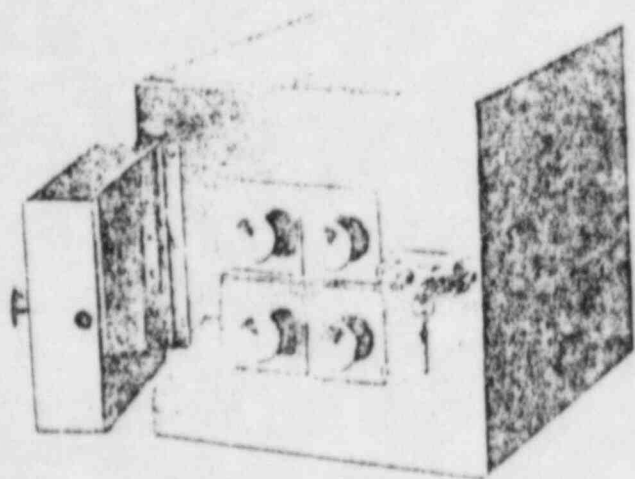
Constructed of steel and shielded with 4" of lead, this Storage Safe provides maximum protection against exposure to radiation. Each safe is fireproof and has a keylock door. The storage area in each drawer is 6" L x 13 1/4" W x 1 7/8" D.



Model 999

Custom-Designed Drawers

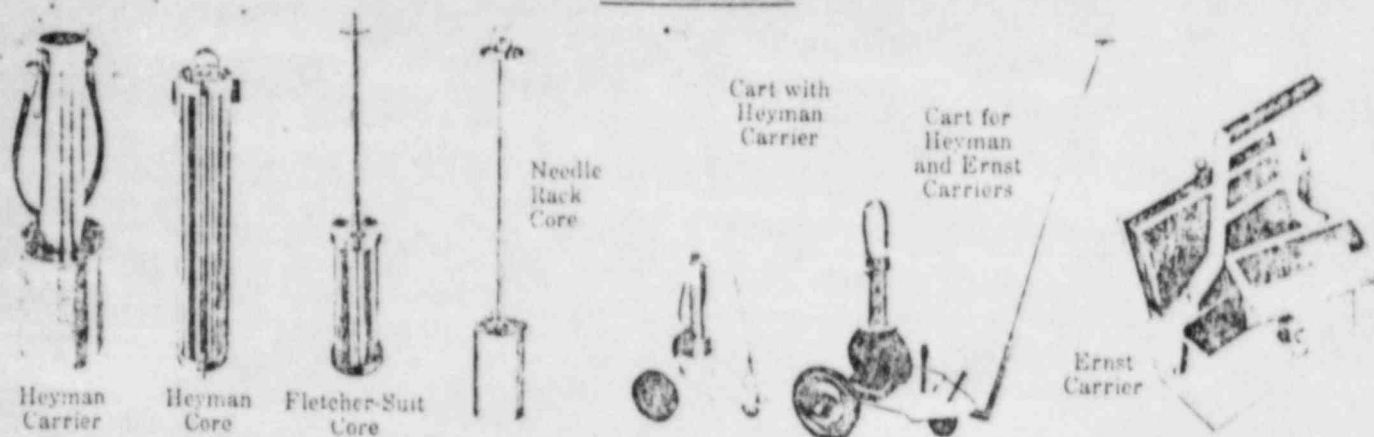
For special requirements relating to drawers, source holders or other modifications, a separate quotation will be forwarded upon request.



Model 998

Model No.	No. of Drawers	Safe Dimensions	Lead Thickness	Net Weight
999	4	12 1/4" H x 12 1/4" W x 14 1/2" D	4" (10.2 cm)	950 lbs.
998	6	12 1/4" H x 15" W x 14 1/2" D	4" (10.2 cm)	1150 lbs.

RADIATION PRODUCTS DESIGN, INC., RR 3 BOX 132-F, BUFFALO, MN 55313, (612) 477-6109



Carriers, Cores and Carts

For rapid transport of radioactive sources to bedside or operating room

- Ideal for temporary storage of approx. 100 mg Ra-eq ^{137}Cs or 100 mg Ra.

These units are designed for safety and convenience in transporting radioactive material between a permanent storage safe and the patient's bedside. Carriers and lift-out cores are made of corrosion-free stainless steel, and the carriers are shielded with 1" (2.54 cm) of lead. The units fit a rugged, enamelled-steel cart equipped with two wheels, a caster and a long handle. One cart holds a Heyman Carrier; the other one holds both Ernst and Heyman Carriers.

Three types of lift-out cores are available for the Heyman Carrier: Fletcher-Suit, Heyman, and a Needle Rack. The Fletcher-Suit Core holds one loaded uterine source carrier and two loaded colpostat source carriers. The Heyman Core holds up to 12 MICRAD™ or Heyman sources. The lead-filled Needle Rack Core holds up to 12 threaded needles.

The Ernst Carrier is 15" high with a 6" x 2" x 2" opening. The Heyman Carrier is available with an optional padlock for extra safety.

Specifications

All-welded stainless steel carrier, shielded with 1" (2.54 cm) lead. Lift-out stainless steel core. Maximum radiation level (at 1 meter from center of shield): 5 mR/hr when 100 mg Ra-eq cesium-137 is stored; 20 mR/hr for 100 mg radium. Enamelled-steel cart has two 8" wheels, one 3" caster, and 10' handle.

67-724	Heyman Carrier	\$ 210.00
67-723	Heyman Carrier with Padlock	260.00
67-715	Fletcher-Suit Core	125.00
67-725	Heyman Core	200.00
67-728	Needle Rack Core	200.00
67-705	Cart for Heyman Carrier	280.00
67-706	Cart for Heyman and Ernst Carriers ..	280.00
67-717	Heyman Carrier, Fletcher Suit Core, Cart	615.00
67-727	Heyman Carrier with Heyman Core Cart	690.00
67-757	Ernst and Heyman Carriers, Cores, Cart	1040.00
67-755	Ernst Carrier	350.00

Radioisotope Storage Safes

Provide maximum radiation protection

- Custom-design storage drawers available.

These safes assure maximum shielding against exposure to radiation from tube sources. Made of steel with 10 cm (4") of lead, each safe has a door keylock and is fire-proof. The storage area in each drawer is 15 cm long x 4.4 cm wide x 4.7 cm deep (6" x 1 3/4" x 1 3/4").

Storage Safes with 7.6 cm (3") of lead are also available. Model numbers and prices on request.

Custom-Designed Drawers

- 67-701 Converting 1 safe drawer to front opening for storing 10 MICRAD Sources \$250.00
- 67-703 Lead Insert for safe drawer. Has 10 holes for upright storage of tube sources 50.00

For special requirements relating to drawers, source holders or other modifications, a separate price quotation will be forwarded on request.



67-745 Four-Drawer Safe

67-746 Six-Drawer Safe

Model No.	No. of Drawers	Length	Width	Height	Net Weight	Price
67-744	2	36.8 cm (14 1/2")	31.8 cm (12 1/2")	26.7 cm (10 1/2")	291 kg (640 lbs.)	\$1825.00
67-745	4	55.8 cm (22 1/4")	32.4 cm (12 3/4")	32.4 cm (12 3/4")	357 kg (785 lbs.)	\$1950.00
67-746	6	56.8 cm (22 3/4")	38.1 cm (15")	32.4 cm (12 3/4")	553 kg (1220 lbs.)	\$2750.00

SOURCE

OUT

RETURNED

Inventory[illegible][illegible]

ATTACHMENT c