James A. Haley
Veterans' Hospital

13000 North 30th Street
Tampa FL 33612

Veterans Administration

In Reply Refer To: 673/119

December 18, 1986

Nuclear Materials Safety Section
U. S. Nuclear Regulatory Commission
Region II
202 Marietta Street, N.W.
Atlanta, Georgia 30323

ATTN: Mr. Earl G. Wright

Subject: Additional Information Concerning a Material License (Reference: 51267, 030-29561)

Dear Mr. Wright:

The following is offered in response to your letter of December 2, 1986. The items are answered sequentially as they appeared in your letter.

Authorized Users. Ian B. Tyson, M.D. and Luis E. Tenorio, M.D. will also serve as authorized users. Drs. Tyson and Tenorio are listed as authorized users on NRC License Number 09-15294-01.

Training Program for Those Who Frequent Restricted Areas. Ronald J. Schnieders will be responsible for conducting the training program for individuals frequenting restricted areas. Mr. Schnieders has been listed as an authorized user on NRC License Number 34-19007-01MD.

Site Description. Enclosure (1), diagram of the VA hospital and surrounding area and enclosure (2), aerial photograph of the VA hospital, illustrate where the VA hospital is located. The area north of the VA hospital is currently vacant land. The University of South Florida Medical Center is east of the VA hospital.

Greg McDaniels of the Hillsborough County Zoning Commission has informed us that the James A. Haley Veterans Hospital is zoned University Community District. Mr. McDaniels has stated that no zoning action is required to operate a nuclear pharmacy out of the VA hospital. Mr. McDaniels can be reached at (813) 272-5710 for confirmation.

Official Copy

Enclosure (3) letter to the Hillsborough County Fire Department dtd 9/9/86, informed them of our intent to distribute radiopharmaceuticals. We agree to send a reminder notice to the fire department annually.

Facilities and Equipment. The exhaust stack for the fume hood is about one foot above roof level. The nearest fresh air intake is more than 25 feet away. The stack is on a flat open roof with unobstructed air-flow. The natural wind currents of the atmosphere are expected to provide adequate mixing and dilution of effluents from the fume hood. The exhaust system blower is in the pipe chase above the seventh floor of the hospital. All ducts below the blower are under negative pressure. The blower pushes air about 10 feet before it leaves the exhaust stack.

In recent years, manufacturers of sodium iodide (I-131) oral solutions have reformulated their products to reduce I-131 volatilization. L. W. Luckett and R.E. Stotler (J. Nucl. Med. 21:477-479, 1981) have shown that the reformulation of sodium iodide (I-131) oral solutions has greatly reduced the volatilization of radioiodine. Our own in-house experiments correlate very well with the data submitted by Squibb described in Item 9.4 of our application. Our in-house experiments showed Squibb's liquid radioiodine to have a volatility of 0.00047% per hour. This is 1.47 times higher than Squibb's figures. However, multiplying the figure of 1.66 x 10-12 uCi/ml from Item 9.4 x 1.47 gives a figure of 2.44 x 10-12 uCi/ml which is still below the regulatory limits of 10 CFR 20.106.

Since the radioiodine effluent will be minimal, we do not feel the added expense of installing HEPA-type filters and charcoal-type filters is warranted. We request a variance allowing us to use radioiodine without installing filters. We also request a variance allowing us to use radioiodine without performing evaluations required by Sections 20.103, 20.106, and paragraph 20.201(b) of 10 CFR Part 20.

Survey Instrument Calibration. The Radiation Safety Office of the University of South Florida in conjunction with the Radiation Safety Officer or the Associate Radiation Safety Officer of the James A. Haley Veterans Hospital will perform annual calibration of our survey meters. The Radiation Safety Officer of the James A. Haley Veteran's Hospital accepts responsibility for the proper calibration of survey meters.

Enclosure (4), JL Shepherd and Associates Operating Manual, and enclosure (5), Calibration Certificate, describe the use of the Cs-137 source that will be used for calibration.

Receipt and Transfer of Packages Containing Radiopharmaceuticals. Enclosure (6), memorandum dated 12/17/86, updates our procedure for receiving radioactive materials.

All packages containing radiopharmaceuticals will be wipe tested prior to shipment. The level of removable contamination will not exceed 22 disintegrations per minute per square centimeter.

Delivery personnel will survey hands, clothes, and shoes prior to delivery. Surveys of delivery personnel must be at background levels prior to leaving the nuclear pharmacy. Surveys will be performed using a survey meter sufficiently sensitive to detect 0.1 milliroentgen per hour.

The Radiation Safety Officer accepts the responsibility of preventing contamination of elevators and stairwells.

Packages containing radiopharmaceuticals are transferred by using the service elevators.

The above is submitted to support our application for a nuclear pharmacy license.

Sincerely,

Richard A Silver

RICHARD A. SILVER
Director

Enclosures: (6)

J L SHEPHERD and Associates

740 Salem Street, Glendale, California 91203 • 213/245-0187

Irradiation & Calibration Equipment • Lead Shielding • Nuclear Applications

CALIBRATION CERTIFICATE

TO: UNIV. OF SO. FLORIDA (Victoreen) P.O.# 5146 Release #5

SOURCE: 100 mCi ^{137}Cs Isotope Products type 225, S.N. D-851

MOUNTING: J.L. Shepherd & Assoc. Model 28-5 Calibrator, S.N. 10046

INSTRUMENT: All calibration is done with MDH Model 2025. This meter is calibrated by MDH Industries, Incorporated and its calibration is directly traceable to National Bureau of Standards.

POSITION: Centered in beam port.

DISTANCE: 60 cm

OUTPUT: 106 mR/hr

DATE: August 20, 1981

J. L. Shepherd

JLS/

Enclosure (5)

MACHINE MANUFACTURERS — PROGRAMMERS

James A. Haley
Veterans' Hospital

13000 North 30th Street
Tampa FL 33612

Veterans Administration

September 9, 1986

In Reply Refer To: 673/138

Hillsborough County Fire Department
(Station 140)
1404 East 131st Street
Tampa, FL 33612

1. This is to update your pre-fire plan for James A. Haley VA Medical Center. Our current "HOT" room for Nuclear Medicine is located in the West Wing, room B314a.

2. The Radio-pharmacist is now anticipating an approximate 50% increase in materials to be stored in this designated area. The incoming materials stored will not exceed 6 curies of Gamma and Beta material. They are of the same basic materials now being stocked in the "HOT" room. The materials are withdrawn from this source daily for distribution in pharmaceutical compounds.

3. All rooms where radioactive materials are used or stored are posted with warning signs.

J. R. Limperi

J.R. LIMPERI, Chief, Engineering Service

cc: Ron Schnieders, Radio-pharmacist

Enclosure (3)

JL SHEPHERD and Associates

740 Salem Street, Glendale, California 91203 • 213/245-0187

Irradiation & Calibration Equipment • Lead Shielding • Nuclear Applications

OPERATING MANUAL FOR SERIES 28 CALIBRATION FACILITIES

S. N. 10046
Model # 28-5
Control #

RADIATION SAFETY

1. The calibrator emits an intense beam of radiation in the area subtended by the beam port (cone). A much lower level of scattered radiation extends in a penumbra surrounding the primary beam. THE OPERATOR SHOULD NEVER STAND IN THE DIRECT BEAM WHILE OPERATING THE UNIT. He should also avoid standing in the penumbra adjacent to the primary beam. THE UNIT MUST BE OPERATED AT ALL TIMES FROM A POSITION BEHIND THE CALIBRATOR, ON THE SIDE OPPOSITE THE BEAM PORT. The user should set up exclusion lines for personnel using this calibrator as well as limited room access. This information is ordinarily included as part of the facility operation regulations and is required as part of the user's license to possess the calibrator.

2. At intervals not exceeding six months, leak tests should be made on the calibrator by taking wipes at the nearest accessible surface of the source when it is in the "off" position. This surface would be at the top of the calibrator where the operating rod extends through the top plate. These wipes should be measured on an instrument capable of measuring 0.005 uCi of 60 Cobalt or 137 Cesium, dependant on which isotope is used in the calibrator. Use of the calibrator should be stopped immediately if contamination is detected and the manufacturer should be notified. NOTE: The 0.005 uCi level is that generally prescribed by regulatory authorities; individual institutions may require more stringent standards.

INSTALLATION

Series 28 Calibrators are normally shipped in two parts: The source shield and the stand. TO INSTALL, bolt the source shield to the stand in the location where the calibrator is to be used. Plug the cord into a 115V. 1 phase socket.

Enclosure (4)

OPERATION

1. Remove the padlock which locks the source in the "off" position during shipment using the key provided. NOTE: This padlock may be used to lock the source in the "off" position at any time that the calibrator is not being used.

2. To expose the source, grasp the black operating knob (while standing behind the calibrator, opposite the beam port) and raise it until the spring loaded detent engages the depression on the operating shaft. The source is now exposed.

3. To return the source to the "off" position, push the operating knob down until the pin on the shaft strikes the stop on the calibrator top. The source is now fully shielded.

SAFETY FEATURES

The shield provides for full shielding in all directions at all times except out the beam port when the source is in the "on" position.

Position indicating lights (green - OFF, red - ON) at the top of the calibrator show source position at all times. The "ON" light is activated whenever the source is not fully "OFF".

EMERGENCY PROCEDURES

If at any time the operation of the source rod becomes difficult, the calibrator should be removed from service. It should be taken to a hot cell, the source rod removed and both the source rod and the tube through which it slides should be cleaned. Difficult operation will be caused by dirt or foreign particles falling into the source tube.

MAINTENANCE

1. DO NOT lubricate the source rod at any time in any way. LUBRICATION OF ANY KIND WILL VOID ALL WARRANTY.

2. Operate the unit in a clean atmosphere. Do not permit dirt or other particles to fall in the hole at the top of the unit. When not in operation, it is recommended that the calibrator be covered, i.e., by a plastic bag.

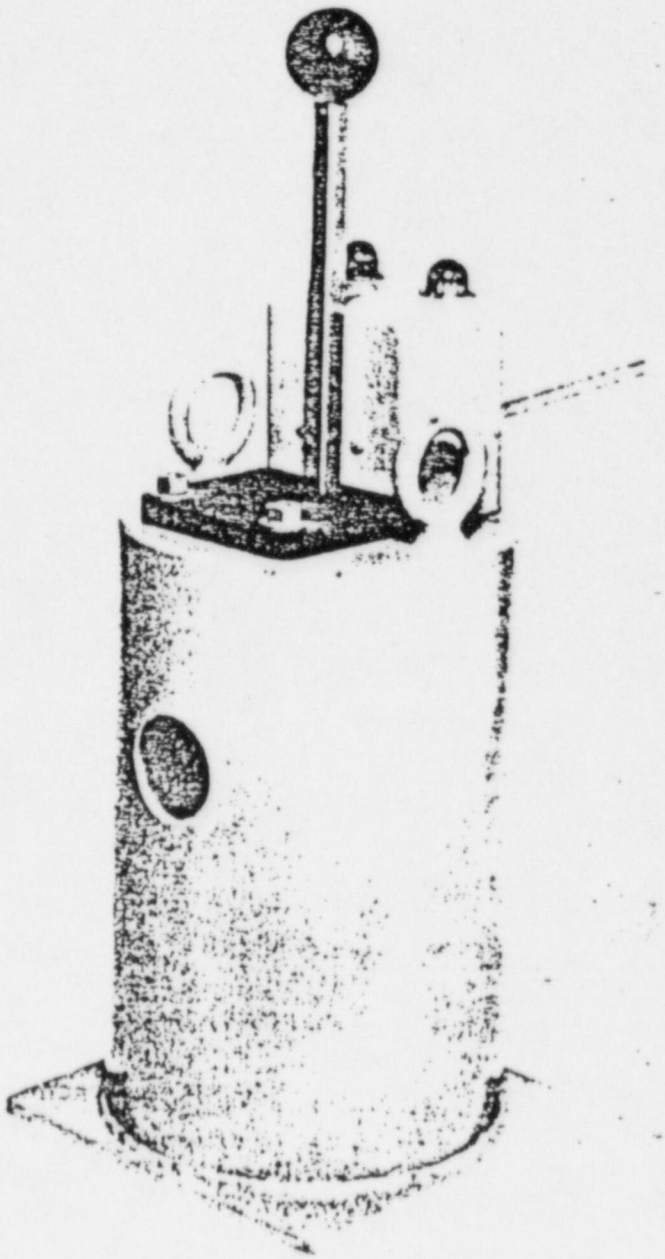
MODEL 28-6A BEAM CALIBRATORS
FOR CALIBRATING INSTRUMENTS TO > 4,000 mR/HR.

Model 28-6A is a manually operated Beam type Calibrator which incorporates a 1.2 Curie ^{137}Cs source.

Slip-on Attenuators are available to provide 16 different calibration levels at a single calibration distance.

Low external radiation levels: less than 2 mr/hr at one foot from any surface with source in the "Off" position and behind the calibrator when the source is in the "On" position.

Operation — the source is fixed to the end of shielded operating rod, moved from a completely shielded "Off" position to an exposed "On" position by means of an operating handle from the back of the unit.



MODEL 28-6A MANUALLY
OPERATED BEAM CALIBRATOR

JL SHEPHERD and Associates
740 Salem Street
Glendale, CA 91203
(213) 245-0187

SPECIFICATIONS

DISTANCE	30 cm	½ meter	1.0 meter	10 meters
RADIATION LEVEL	4.4 R/Hr.	1.6 R/Hr.	400 mR/Hr.	4 mR/Hr.

BEAM ANGLE: 30 degrees (15 degrees, 20 degrees or 45 degrees also available). Please specify beam angle on purchase order.

BEAM HEIGHT: 36" from the floor (other heights available on request). Stand included.

SOURCE POSITION INDICATING LIGHTS: Built into the calibrator. Require 115 v 60 Hz power at 2 amps.

CONSTRUCTION: Meets DOT 7A specifications as a shipping container.

ENCAPSULATION: Sources are doubly encapsulated in stainless steel.

CERTIFICATION: Units are calibrated using Bureau of Standards traceable Roentgen meters; calibration and leak test certificates are furnished with each unit.

MANUALS: Provided with each unit.

LICENSING: Model 28-6A Calibrators appear in the Approved Sources and Devices Catalog of the USNRC under the designation "J.L. Shepherd and Associates Series 78 Calibrators."

PRICE: $1,490.00 F.O.B. - Los Angeles.

ACCESSORIES

SLIP-ON ATTENUATORS: Set of four. Values: X-2, X-4, X-10, and X-100 to provide attenuation factors for ^{137}Cs as follows; 0, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800, 1,000, 2,000, 4,000, and 8,000 at a single distance from the calibrator. PRICE: $395.00 for set of four. $125.00 each. National Bureau of Standards Traceable Calibration included.

REMOVABLE COLLIMATORS: To reduce beam angle as required. PRICE: $95.00 each.

ROLLINGS STANDS: With casters and position stops. PRICE: $125.00.

PRESET AND ELAPSED TIMER OPTIONS: See catalog sheet on Timers.

FOR LOWER LEVEL CALIBRATION REQUIREMENTS
MODEL 28-5A: Identical to the Model 28-6A except that it comes complete with a 100mCi ^{137}Cs source. Weight: 60 pounds. PRICE: $1,040.00.

FOR HIGHER LEVEL CALIBRATION REQUIREMENTS
SERIES 78, MODEL 78 AND MODEL 81 REMOTELY CONTROLLED BEAM CALIBRATORS: With loadings to 15,000 Ci ^{137}Cs or ^{60}Co.

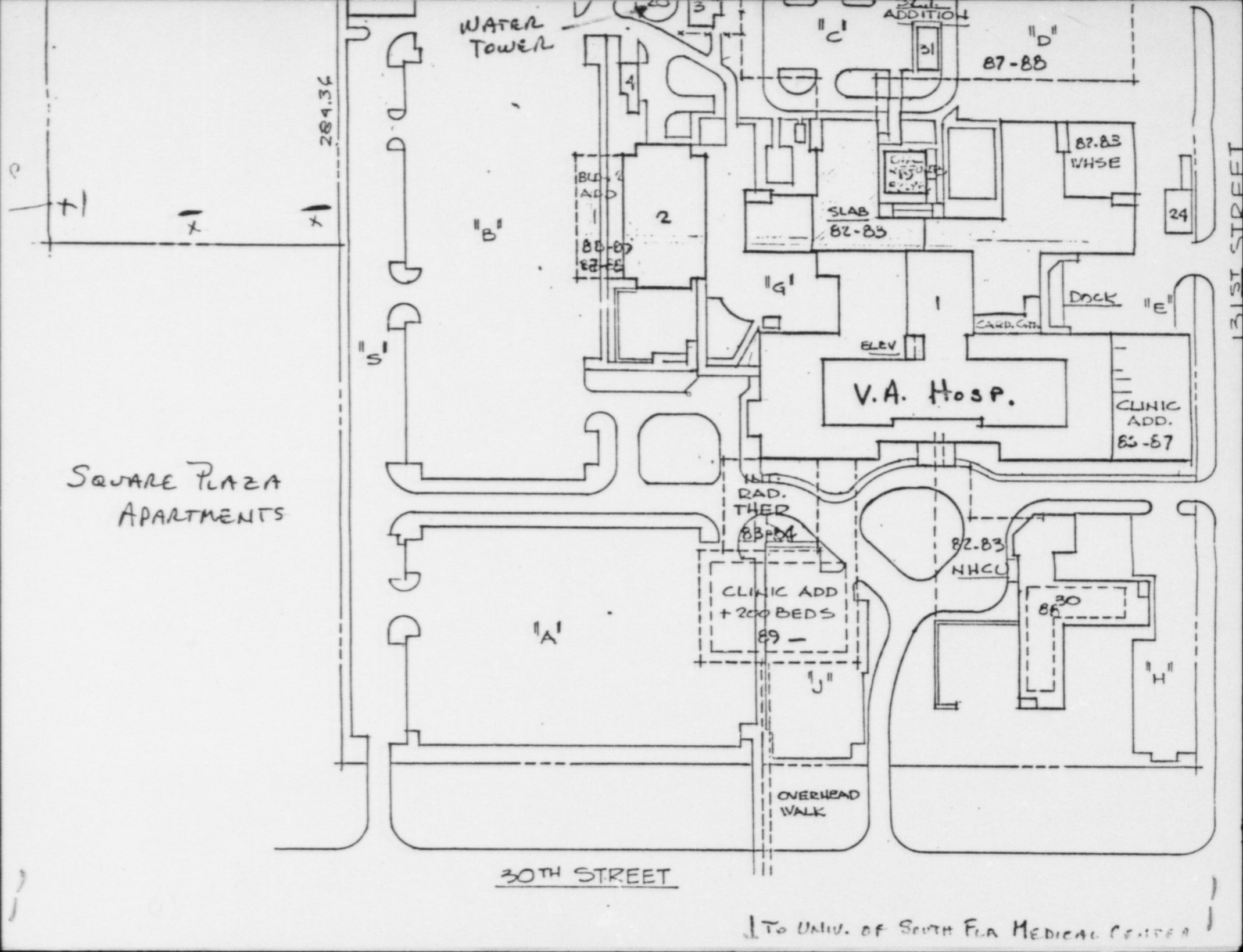
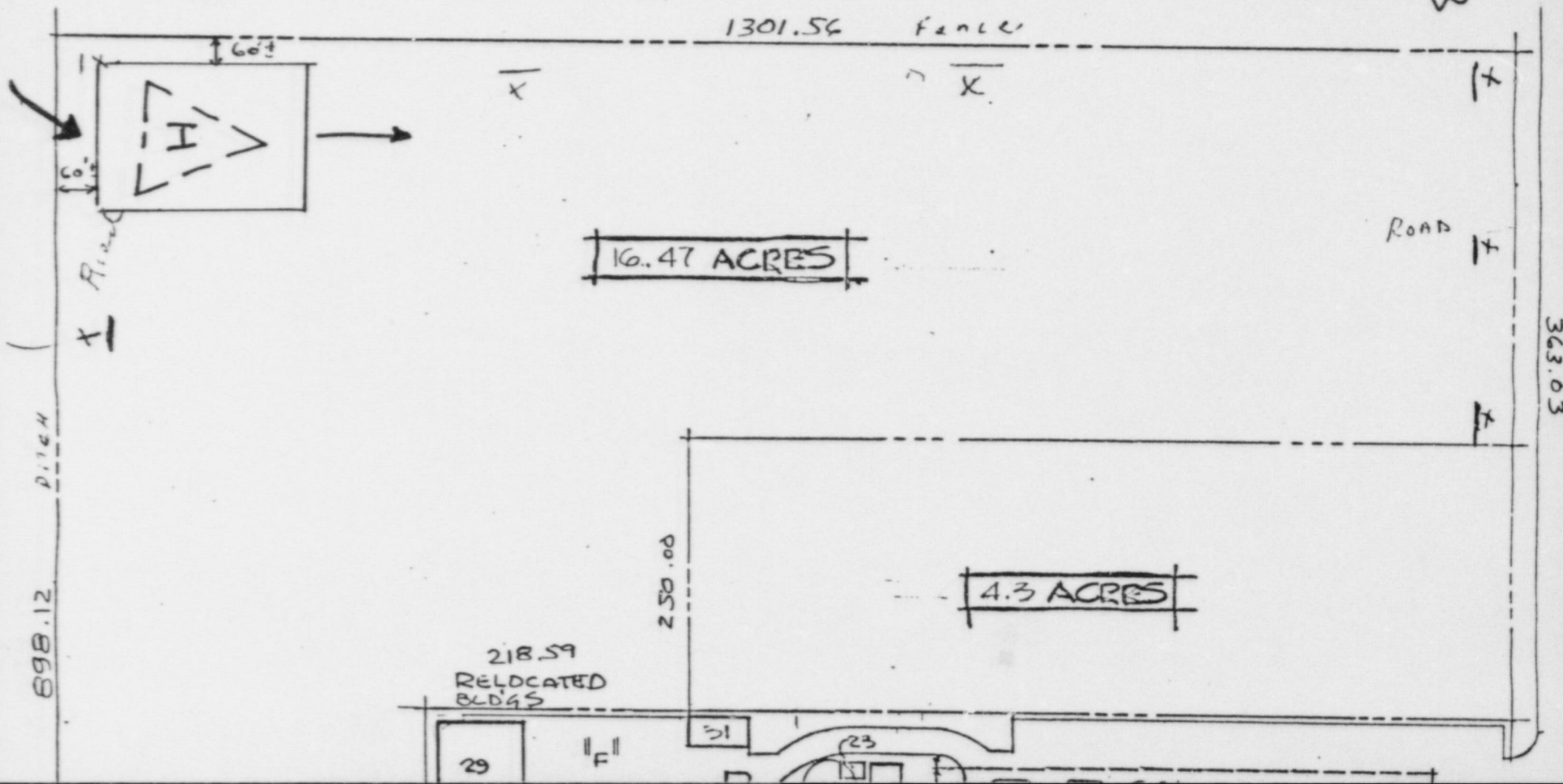

WATER TOWER
"C"
2nd. ADDITION
"D"
87-88
82.83 WHSE
SLAB 82-83
24
"B"
2
"G"
1
DOCK
"E"
CARD. CATH.
ELEV
"S"
V.A. HOSP.
CLINIC ADD. 85-87
RAD. THER
82.83 NHCU
CLINIC ADD +200 BEDS 89 —
"A"
"J"
"H"
OVERHEAD WALK
30TH STREET
SQUARE PLAZA APARTMENTS
284.36
13ST STREET
To Univ. of South Fla Medical Center

EXHIBIT "D"

8703270485-01

Enclosure (1)

PRINCE MANOR APARTMENTS



TI APERTURE CARD

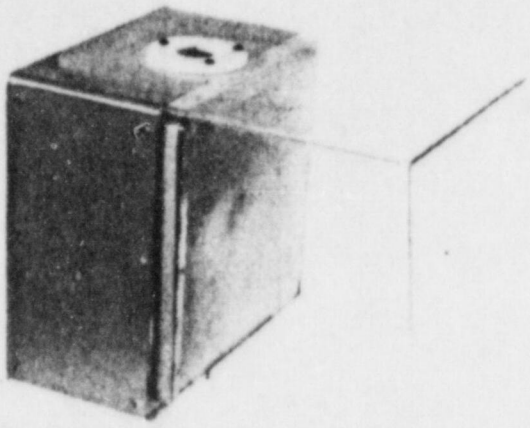
Also Available On Aperture Card

Enclosure (2)

8703270485-02

Radioiodine Mini-Hood

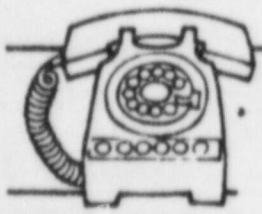
The hood within a hood that offers EXTRA PROTECTION in radioiodine control.



Self-contained Mini-Hood has an activated charcoal air filtering cartridge to efficiently trap up to 90% radioiodine. Used inside a regular operating hood, it provides additional working protection and reduces radioiodine discharge to well within permissible limits. Eliminates the need for expensive in-line filter systems. Reduces hood maintenance costs.

Constructed of sturdy, shatterproof Lucite®, Mini-Hood has an integral blower capable of pulling 100 linear feet per minute; minimum of 100 linear feet per minute face velocity. One cubic foot of working volume offers adequate working area. Lightweight, portable . . . easily set up for radioiodine work and stored away when not in use. On-Off switch is located directly on blower. Comes with 5 feet of 3-line cord and grounding connector. 115V, 50/60 Hz.

112-037	Radioiodine Mini-Hood	$550.00
112-036	Replacement Charcoal Air Filtering Cartridge, 12" x 12" x 1"	95.00
087-112	220V Converter	55.00



For quick delivery, call

516 · 878 · 1074

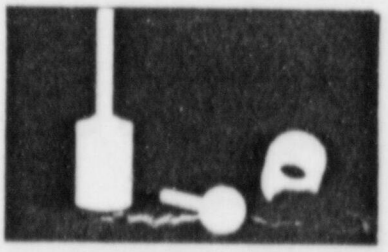
Planchets

Atomlab Planchettes are available in several variations:

Aluminum with Flat Bottoms = AL Flat
Aluminum with Raised Concentric Rings = AL Con
Stainless Steel with Flat Bottoms = SS Flat
Stainless Steel with Raised concentric Rings = SS Con
Copper with Flat Bottoms = COP Flat
Copper with Raised Concentric Rings = COP Con

SIZE	#	PRICE PER C
1" x 5/16"		
AL Flat	129-001	$11.00
AL Con	129-002	$11.00
SS Flat	129-003	$11.00
SS Con	129-004	$12.00
1-1/4" x 3/32"		
AL Flat	129-005	$10.00
AL Con	129-006	$10.00
SS Flat	129-007	$11.00
SS Con	129-008	$11.00
COP Flat	129-025	$16.00
COP Con	129-026	$16.00
1-1/4" x 5/16"		
AL Flat	129-009	$10.00
AL Con	129-010	$10.00
SS Con	129-012	$12.00
1-1/2" x 1/4"		
AL Flat	129-013	$10.00
AL Con	129-014	$10.00
SS Flat	129-015	$12.00
SS Con	129-016	$12.00
2" x 1/8"		
AL Flat	129-017	$13.00
AL Con	129-022	$13.00
SS Flat	129-018	$19.00
SS Con	129-019	$19.00
2" x 1/4"		
AL Flat	129-023	$14.00
AL Con	129-024	$14.00
SS Flat	129-020	$20.00
SS Con	129-021	$20.00

ATOMLAB TEFLON PRECIPITATION APPARATUS



Made of tough rigid white Teflon which, being chemically inert, having an absolute non-adhesive surface and zero moisture absorption, is easily cleaned and decontaminated. The slotted disc accommodates 1-1/8"-dia. filter paper for mounting on the very inexpensive, dual purpose nylon cupped-disc and ring device.

015-003	Precipitation Apparatus	$75.00

Veterans Administration

Memorandum

Date: December 17, 1986

To: Chief, Supply Service (90)
Chief, Security Service (132)

From: Radiation Safety Officer (115)

Subj: Delivery of Radioactive Material

1. In order to update previous correspondence (5/31/85) regarding delivery of radioactive materials to the Nuclear Medicine Service, I submit the following:

A. All shipments containing radioactive material are to be brought directly to the Nuclear Medicine Service, Room B314.

B. During the hours from 7 a.m. to 4:30 p.m., Monday through Friday, there will be someone in the department to accept any package.

C. During time other than the above mentioned hours, it is requested that security allow the delivery agency access to Room B308A in the Nuclear Medicine Service.

D. Paperwork may be left with the material. The security officer should initial the receipt as acceptance of a package. His signature will not constitute acceptance of the correct material or the condition of said material received.

E. If the package is wet or appears to be damaged, immediately contact the hospital Radiation Safety Officer. Ask the carrier to remain at the hospital until it can be determined that neither he nor the delivery vehicle is contaminated.

2. This is not a policy change and past cooperation in this matter has proven highly satisfactory. However certain specifics have been adjusted.

3. The Radiation Safety Officer and Associate Radiation Safety Officer are as follows:

A. Radiation Safety Officer: Ian B. Tyson, M.D.
Office Phone: Ext 6673
Home Phone: 689-2778

B. Associate Radiation Safety Officer: Michael Courey
Office Phone: Ext 6673
Home Phone: 920-2088

Ian B. Tyson, M.D.
Radiation Safety Officer

Enclosure (6)

VA FORM 2105
MAY 1983
✪ U.S. GOVERNMENT PRINTING OFFICE: 1984-421-488/0348