MATERIALS LICENSE

Amendment No. 32

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Charleston Area Medical Center	In accordance with the letter dated April 25, 1997 3. License Number 47-15473-01 is amended in its entirety to read as follows:
2. P.O. Box 1547 Charleston, West Virginia 25326	4. Expiration Date August 31, 2005 (extended)
	5. Docket or Reference No. 030-09164

6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
A. Any byproduct material identified in 10 CFR 35.100	A. Any radiopharmaceutical identified in 10 CFR 35.100	A. As needed
B. Any byproduct material identified in 10 CFR 35.200	B. Any radiopharmaceutical identified in 10 CFR 35.200	B. As needed
C. Iodine 131	C. Any unsealed form for preparation and administration as specified in §35.300	C. 55.5 gigabecquerels (1.5 curies)
D. Any byproduct material with a half-life less than 120 days except iodine 131	D. Any form for uses described in §35.300 initially distributed in accordance with a specific license issued pursuant to 10 CFR 32.72 or a specific license issued to the manufacturer by an Agreement State pursuant to equivalent State regulations.	D. As needed, not to exceed 3.7 gigabecquerels (100 millicuries) per container
E. Any byproduct material identified in 10 CFR 35.400	E. Any brachytherapy source identified in 10 CFR 35.400	E. As needed
F. Any byproduct material identified in 10 CFR 31.11	F. Prepackaged kits	F As needed
G. Gadolinium 153	G. Sealed sources registered pursuant to 10 CFR 32.210 and contained in compatible devices specified in 10 CFR 35.500.	G. 3 sources not to exceed 1000 mCi (37 GBq) each

NMED

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 47-15473-01

Docket or Reference Number 030-09164

Amendment No. 32

6.	Byproduct, source, and/or special nuclear material	7.	Chemical and/or physical form	8.	Maximum quantity of material that may be possessed at ny one time under this license
H.	Cesium 137	H.	Sealed source registered pursuant to 10 CFR 32.210 and contained in a compatible device specified in Item 9.H.	H.	1 source not to exceed 100 millicuries (3.7 GBq)
I.	Cesium 137	I.	Sealed sources registered pursuant to 10 CFR 32.210 and contained in a compatible device specified in Item 9.I.	I.	3 sources not to exceed 1000 Ci (37 TBq) each
J.	Hydrogen 3	J.	Any	J.	185 megabecquerels (MBq) (5 millicuries (mCi))
K.	Carbon 14	K.	Any	K.	185 MBq (5mCi)
L.	Phosphorus 32	L.	Any	L.	185 MBq (5 mCi)
M.	Iodine 125	M.	Any	M.	18.5 MBq (0.5 mCi)

9. Authorized Use:

A.	Medical use described in 10 CFR 35.100; Use of Iodine 131, Idomethyl-19-norcholestrol (NP-59) shall be in accordance with IND 17,095
B.	Medical use described in 10 CFR 35.200
C. and D.	Medical use described in 10 CFR 35.300
E.	Medical use described in 10 CFR 35.400
F.	Clinical in vitro studies
G.	Medical use described in 10 CFR 35.500
H.	For storage only in a J.L. Shepherd 78 series calibrator
I.	For use in an AECL Gammacell 1000 Elite self-contained irradiator for the irradiation of blood and blood samples.
J.	*in-vitro* laboratory use
K.	*in-vitro* laboratory use
L.	*in-vitro* laboratory use
M.	*in-vitro* laboratory use

MATERIALS LICENSE
SUPPLEMENTARY SHEET

CONDITIONS

10. Location(s) of use:

A. Memorial Division
3200 MacCorkle Avenue
Charleston, West Virginia

B. General Division
501 Morris Street
Charleston, West Virginia

C. Women & Children's Division
800 Pennsylvania Avenue
Charleston, West Virginia

D. Center for Reproductive Medicine
830 Pennsylvania Avenue
Suite 304
Charleston, West Virginia

E. **Braxton County Memorial Hospital**
100 Hoylman Drive
Gassaway, WV 26624

F. J.L. Shepherd instrument calibrator in Sub-Item 6,7,8,9 H above shall be stored only in the Memorial Division radioactive waste storage area

G. The Gammacell 1000 Elite shall be used only in the Blood Bank at the Memorial Division

H. Material in Sub-Item 6.E shall only be used at the Memorial Division

11. Radiation Safety Officer: Steven Artz, M.D.

12. Authorized user(s):

A. The use of licensed material in or on humans shall be by a physician, dentist, or podiatrist as defined in 10 CFR 35.2.

B. Physicians, dentists, or podiatrists designated to use licensed material in or on humans shall meet the training criteria established in 10 CFR 35, Subpart J and shall be designated by the licensee's Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for three years after the individual's last use of licensed material.

C. Licensed material for other than human use shall be used by or under the supervision of individuals designated by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for three years after the individual's last use of licensed material.

CONDITIONS

Continued -

13. A.(1) The source(s) in Item 7. H and I, shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region II, Division of Nuclear Materials Safety, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30323-3415. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

14. The licensee may transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Sealed sources containing licensed material shall not be opened by the licensee.

16. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal or sealed sources in the irradiator shall be performed by a person specifically licensed by the Commission or an Agreement State to perform such services.

17. The device manufacturer's Instruction Manual for the Gammacell 1000 devices shall be followed and the licensee shall make copies available to each person using or having responsibility for use of licensed material.

18. The licensee shall maintain records of information important to safe and effective decommissioning at 3200 MacCorkle Avenue, S.E., Charleston, West Virginia in accordance with the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 47-15473-01

Docket or Reference Number 030-09164

Amendment No. 32

CONDITIONS

Continued -

19. Pursuant to 10 CFR 20.1301(c) and in reliance on statements, procedures and representations made by the licensee in his application dated May 18, 1995, the following maximum radiation levels are hereby authorized, until one year from the renewal date of this license, in the following unrestricted areas:

Maximum Radiation Level	Unrestricted Area
Up to 3 mR/hr	At distances of up to 3 feet from the boundaries of Room 474, 489, 574 and 589.

20. In addition to the possession limits in item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35 for establishing decommissioning financial assurance.

21. Except as specifically provided otherwise in this license and in 10 CFR 35.31, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated May 18, 1995 [renewal]

B. Letters dated:
(1) September 20, 1990 [blood cell irradiator procedures]
(2) June 14, 1991 [training tests for level of comprehension]
(3) April 29, 1993 [procedure for designating authorized users]
(4) December 26, 1995 [Additional storage rooms, add use room at General; change Gd-153 total auth; replace dose calibrator tests; add use room at Memorial]
(5) April 25, 1997 [add place of use]

C. **NRC letter dated March 1, 1996 (extends expiration date in accordance with 10 CFR 30.36)**

FOR THE U.S. NUCLEAR REGULATORY COMMISSION
HECTOR BERMUDEZ

DATE MAY 16 1997

BY _____

Region II, Division of Nuclear Materials Safety
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30323-3415

N:\MLICENSE\47-15473.A32

5/16/97

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303

MAY 16 1997

INFORMATION FOR NRC MATERIAL LICENSEES

Please find enclosed:
____ Your NRC material license
____ Amendment to your NRC material license
____ Amendment renewing your NRC material license
____ Amendment terminating your NRC material license
____ Notice for Radiographer Quality Assurance Approval Program

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify this office (ATTN: Ms. Diane Heim at (404) 562-4723) so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day in the month and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR 19, "Notice, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:

   a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and

   b. you have notified the U. S. Nuclear Regulatory Commission, Region II, ATTN: Materials Licensing\Inspection Branch, in writing, that activities authorized by the license will be initiated.

   c. you have submitted and certified implementation of a Quality Management Program (10 CFR 35.32) for radiotherapy, or for administering >30 uCi of I-125 or I-131.

3. Notify NRC, in writing, within 30 days:

   a. when an authorized user, Radiation Safety Officer, or Teletherapy Physicist permanently discontinues performance of duties under the license or has a name change; or

   b. when the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).

4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:

   a. when you decide to terminate all activities involving materials authorized under the license; or

   b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.

(Rev. 4/97)

5. Request and obtain a license amendment before you:

   a. receive or use byproduct material for a clinical procedure permitted under Part 35 but not permitted by your license issued pursuant to this part.

   b. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as an authorized user under a license for medical use of byproduct material.

   c. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as a Radiation Safety Officer, Teletherapy Physicist, or Nuclear Pharmacist, under a license for medical use of byproduct material.

   d. order byproduct material in excess of the amount, or a different radionuclide or form, other than authorized on the license;

   e. add or change the areas of use or address (or addresses) of use identified in the license application or on the license; or

   f. change ownership of your organization.

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. Transfer of licensed materials must be consistent with 10 CFR 30.41, 40.51 or 70.42, as applicable. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a Notice of Violation, or imposition of a Civil Penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, (7/95). Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken against those who do not achieve the necessary attention to detail and standard of compliance expected of licensees.

Thank you for your cooperation.

Enclosures:
1. NRC License
2. Category Marked Below for:
   [ ] New licenses: NUREG-1600 (7/95); 19; 20; 30; 40 or 70, as appropriate; 71; 170; NRC Form 3; Agreement State list; and NRC Form 313.
   [ ] New radiography licenses: Parts 34; 150.
   [ ] New medical and teletherapy licenses: Part 35.
   [ ] Amendments and renewals: NRC Form 313.

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(Rev. 3/96)

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 02120
Status Code: 0
Fee Category: 7C 3E
Exp. Date: 20050831
Fee Comments: 3E EFF 6/19/91
Decom Fin Assur Reqd: N

1997 MAY -6 AM 7:15

LICENSE FEE TRANSMITTAL

A. REGION II

1. APPLICATION ATTACHED
   Applicant/Licensee: CHARLESTON AREA MEDICAL CENTER
   Received Date: 970429
   Docket No: 3009164
   Control No.: 257478
   License No.: 47-15473-01
   Action Type: Amendment

2. FEE ATTACHED
   Amount: 460.00
   Check No.: 518736

3. COMMENTS

Signed DIANE HEIM
Date 5/1/97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ✓)

1. Fee Category and Amount: 7C 3E #460

2. Correct Fee Paid. Application may be processed for:
   Amendment ✓
   Renewal
   License

3. OTHER

Signed Rita Messina
Date 5/6/97

Log May 2 II
Remitter
Check No. 518736
Amount $460 ($30 Refunded)
Fee Category 7C 3E
Type of Fee Amd
Date Check Rec'd.
Date Completed 5/6/97
By: Vera

Charleston Area Medical Center

Nuclear Medicine

Memorial Division
3200 MacCorkle Avenue, SE
Charleston, West Virginia 25304
(304) 348-4252

April 25, 1997

Region II, U.S. Nuclear Regulatory Commission
Materials Licensing Branch
Atlanta Federal Center
61 Forsyth St., SW (Suite 23T85)
Atlanta, Georgia 30303

RE: Amendment to NRC License 47-15473-01
Charleston Area Medical Center

Gentlemen:

We have recently acquired another hospital and wish to amend our license to allow the medical use of byproduct materials at the new facility. The address of the new facility is:

Braxton County Memorial Hospital
100 Hoylman Drive
Gassaway, WV 26624

We have attached a detailed drawing of the Nuclear Medicine Imaging Room, Hot Lab, and Stress Rooms as ATT 1. We also have attached a list of equipment used at the facility as ATT 2.

All other stipulations of our current byproduct materials license will be followed at the Braxton County facility. However, we have also attached as ATT 3 the "CAMC Braxton County Nuclear Medicine Xenon-133 Handling Procedures" similar to those already submitted in our last license renewal for our other facilities.

Enclosed please find a check in the amount of $460.00 to cover the administrative licensing fees.

If you have any questions or require additional information, please contact Jeff Brunette at (304) 348-9491.

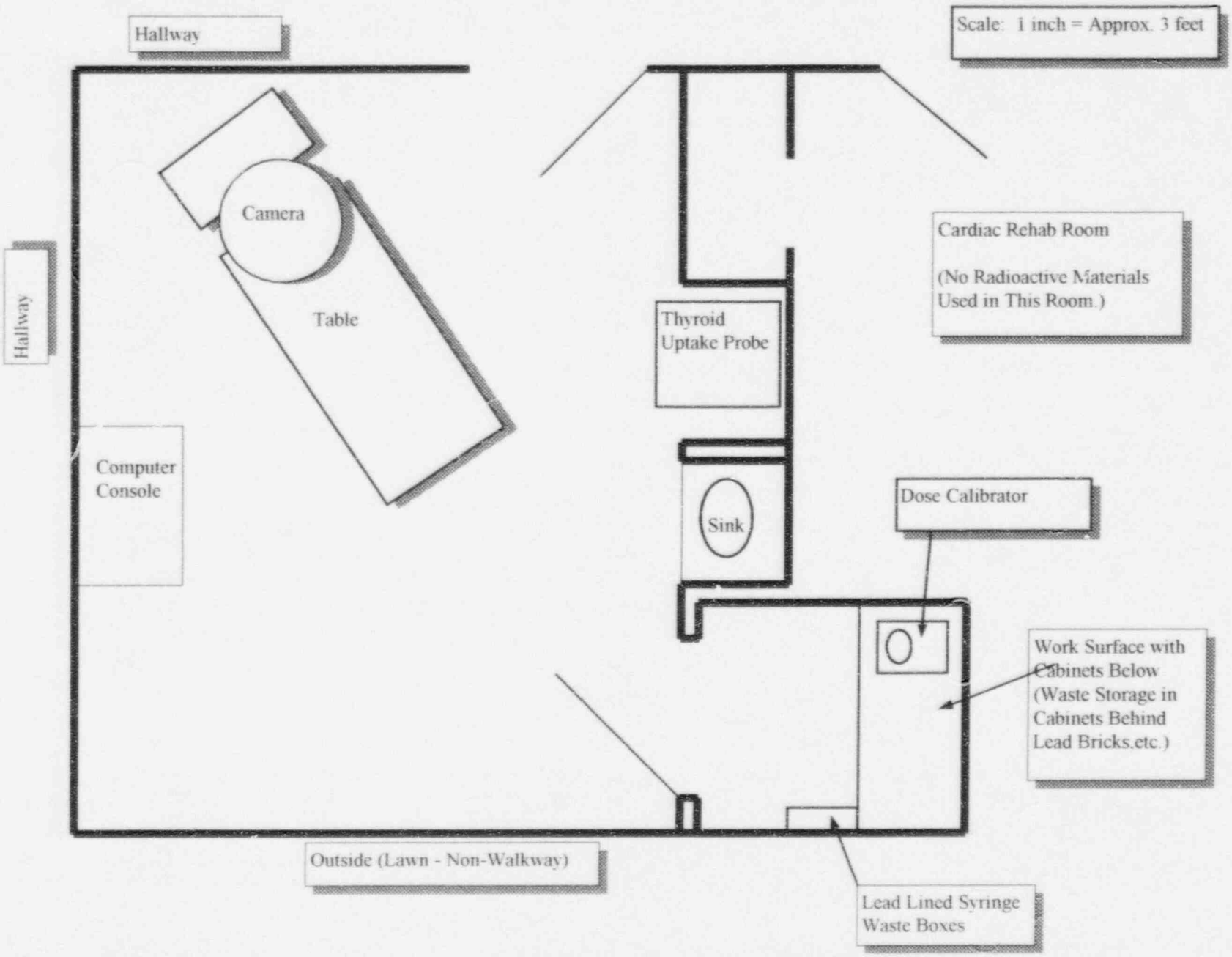
Sincerely,

Steven Artz, MD
Radiation Safety Officer

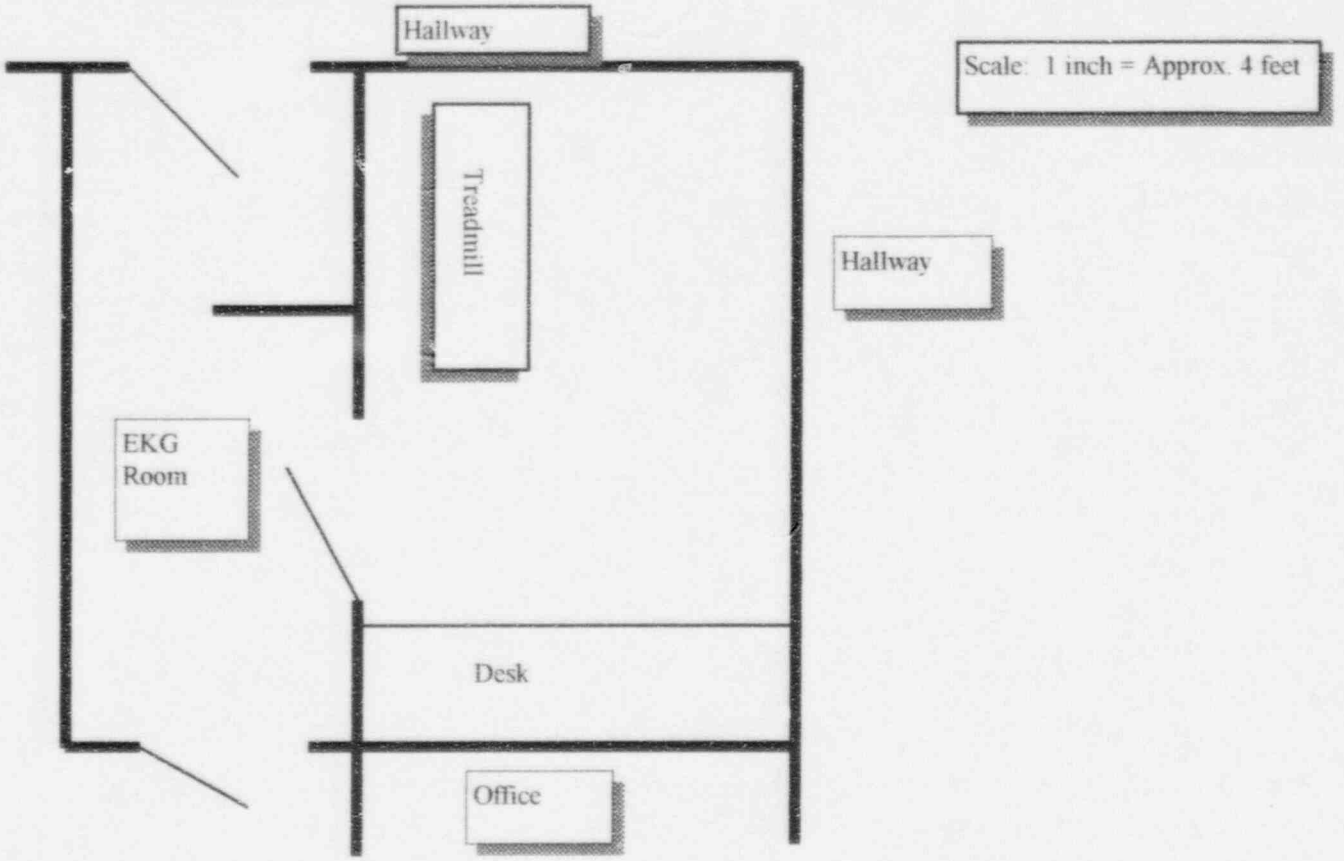
257473

Robert Savage
Executive Vice President & Chief Operating Officer

ATT 1 - Braxton County Imaging Room



ATT 1 - Braxton County Stress Room



Other Equipment and Facilities

IMAGING EQUIPMENT

Braxton County
Elicint 409AG

DETECTION EQUIPMENT

Braxton County
Picker 655 Survey Meter (Range: 0.01 – 2000 mR/hr)
Victoreen CDV700 Survey Meter (Range 0.01 – 500 mR/hr)

We are in the process of obtaining a dose calibrator and thyroid uptake system for the Braxton County facility. Additionally, prior to using xenon gas, we will also purchase a xenon delivery system

CAMC Braxton County Nuclear Medicine Xenon-133 Handling Procedures

ATT 3

Quantity to be Used

1. A maximum of 150 patients per year will be studied with an average activity of 20 mCi per patient.

Use and Storage Areas

The Xe-133 will be used and stored in the Nuclear Medicine Department. Storage of the individual Xe-133 doses will be in a lead container in the isotope storage areas surrounded by lead bricks and/or L-Block in the hot lab. Patient doses will be administered in the camera room.

Description of Ventilation System

1. The total area of the Camera Room is approximately 184 square feet, with an 8 foot ceiling, for a total volume of 1472 cubic feet. The room will be under negative pressure with the normal air return system exhausted directly to the outside atmosphere.
2. The Hot Lab, where radioactive materials is stored and prepared for dosing, is approximately 20 square feet, with and 8 foot ceiling, for a total volume of 160 cubic feet. Room air is exhausted to the outside atmosphere by a dedicated ventilation system.

Procedure for Routine Use

1. Xe-133 will be procured in pre-calibrated doses and delivered directly to the Nuclear Medicine Lab. It will be stored in its shipping container in the isotope storage area until ready for patient administration. Upon receipt, the package will be inspected in accordance with the Procedures for Safely Opening Packages Containing Radioactive Materials.
2. Immediately prior to administration, the dose will be measured in the dose calibrator. The patient will be positioned/connected to the Xenon-133 delivery system. All valve positions will be checked for proper settings. The dose will then be delivered and the scan initiated. After the scan is completed, the exhaled Xe-133 gas will be collected in the integrated has trap system and allowed to decay to background. No Xenon-133 has will be exhausted directly into the atmosphere.

Emergency Procedures

If, during the patient study or handling of xenon-133, an accidental release of xenon-133 occurs, the rooms will be evacuated immediately and the doors closed. The room will be closed in accordance with the established has clearance times. Clearance times will be posted in the rooms.

Air Concentrations of Xe-133 in Restricted Areas

The Xe-133 DAC for restricted areas is 1×10^{-4} μCi/ml.

1. Camera Room
   A. A = maximum activity used per year = (20 mCi/patient) (150 patients/year) (10^3 μCi/mCi) = 3×10^6 μCi/year
   B. Assume a loss rate of 20%. (f = 0.2)
   C. Assume that the worker is present for 2000 hours per year.
   D. 1 ft^3/min = 1.7×10^6 ml/hr
   E. V = required ventilation to maintain airborne concentrations of Xe-133 below DAC in a restricted area when averaged over a 2000 hour work year
   V = A f / DAC (2000 hr/yr) = (3×10^6 μCi/yr)(0.2)(1 ft^3/min)/(0.0001μCi/ml)(2000 hr/yr)(1.7×10^6 ml/hr) = 1.8 ft^3/min
2. Hot Lab
   A. A = maximum activity used per year = (20 mCi/patient) (150 patients/year) (10^3 μCi/mCi) = 3×10^6 μCi/year
   B. Assume a loss rate of 20%. (f = 0.05)
   C. Assume that the worker is present for 2000 hours per year.

D. 1 ft^3/min = 1.7 x 10^6 ml/hr

E. V = required ventilation to maintain airborne concentrations of Xe-133 below DAC in a restricted area when averaged over a 2000 hour work year

V = A f / DAC (2000 hr/yr) = (3x10^6 μCi/yr)(0.05)(1 ft^3/min)/(0.0001μCi/ml)(2000 hr/yr)(1.7x10^6 ml/hr)

V = 0.44 ft^3/min

Method of Disposal

1. The Xe-133 expired air will be vented through the exit port in the integrated gas trap system. To ensure proper operation of the Xenon-133 trap, once a month, the staff will collect the effluent from the trap during one patient study in a plastic bag and then monitor the activity in the bag by holding the bag against a camera. With the camera adjusted to detect the noble gas, compare its count rate (cpm – counts per minute) to background cpm with no other radioactivity in the area. A record of the date, background cpm, and bag cpm will be maintained for review. Should the bag count rate be greater than twice background, the trap charcoal will be replaced.
2. The trap will be replaced in accordance with the manufacturer's instructions.
3. If there should be leakage in the gas trap system, or an accidental release of Xenon-133 in the camera room, the Xenon-133 gas will be exhausted directly to the outside, or unrestricted area, through the room exhaust vents. There is no re-circulation of exhausted air within the facility and the point of exit for the exhaust duct is at least 50 feet from the closest point of air intake.
4. A velometer will be used to assure the ventilation rate is adequate. This will be conducted prior to the initial use of Xenon-133 studies, and after any repairs which may alter the flow rate, and at least every six months thereafter.
5. Weekly surveys will be made of the storage area and Xenon delivery system to insure radiation levels are within allowable limits, and as low as reasonably achievable (ALARA).
6. Records will be maintained of all monitoring.

Concentrations of Effluents to Unrestricted Areas

The Xe-133 DAC for restricted areas is 5x10^{-7} μCi/ml.

1. Camera Room

A. A = maximum activity used per year = (20 mCi/patient) (150 patients/year) (10^3 μCi/mCi) = 3x10^5 μCi/year

B. Assume a loss rate of 20%. (f = 0.2)

C. 1 year = 8760 hours.

D. 1 ft^3/min = 1.7 x 10^6 ml/hr

E. V = required ventilation to maintain airborne concentrations of Xe-133 below DAC in a restricted area when averaged over a 2000 hour work year

V = A f / DAC (8760 hr/yr) = (3x10^6 μCi/yr)(0.2)(1 ft^3/min)/(5x10^{-7} μCi/ml)(8760 hr/yr)(1.7x10^6 ml/hr)

V = 80.6 ft^3/min

2. Hot Lab

A. A = maximum activity used per year = (20 mCi/patient) (150 patients/year) (10^3 μCi/mCi) = 3x10^6 μCi/year

B. Assume a loss rate of 20%. (f = 0.05)

F. 1 year = 8760 hours.

C. 1 ft^3/min = 1.7 x 10^6 ml/hr

D. V = required ventilation to maintain airborne concentrations of Xe-133 below DAC in a restricted area when averaged over a 2000 hour work year

V = A f / DAC (8760 hr/yr) = (3x10^6 μCi/yr)(0.05)(1 ft^3/min)/(5x10^{-7} μCi/ml)(8760 hr/yr)(1.7x10^6 ml/hr)

V = 20.1 ft^3/min

Summary

The minimum ventilation rates required to maintain concentrations of Xe-133 in a restricted area below the DAC of 10^{-4} μCi/ml are 0.44 ft^3/min in the hot lab and 1.8 ft^3/min in the camera room. The minimum ventilation rates necessary to maintain airborne concentrations of Xenon-133 in an unrestricted area below $5x10^{-7}$ μCi/ml are 20.1 ft^3/min in the hot lab and 80.6 ft^3/min in the camera room.

The ventilation rates will be no less than 20.1 ft^3/min in the hot lab and no less than 80.6 ft^3/min in the camera room.

Spilled gas clearance times will be calculated using the procedures and calculations outlined in USNRC Regulatory Guide 10.8, Appendix O.4. The results of these determinations will be posted in the respective rooms. Calculations will be revised if there is a change in air flow or activity of Xenon-133 used.

TAX ID #

Lic No

Docket No

DIVISION OF ACCOUNTING AND FINANCE
REQUEST FOR REFUND TO EMPLOYEE/VENDOR

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

EMPLOYEE/VENDOR/PAYEE CODE:

NAME: Charleston Area Medical Center

ADDRESS: Attn: Steven Artz

ADDRESS: 3200 MacCorkle Avenue, SE

CITY: Charleston STATE: WV ZIP: 25304

TRANS CODE: PX

TRANS TYPE: ____ FUND: ____ JOB CODE: ____ AMOUNT: $20.00

TRANS TYPE: IR FUND: R1435 JOB CODE: INTR AMOUNT:

TRANS TYPE: IR FUND: R1099 JOB CODE: ADCH AMOUNT:

TRANS TYPE: IR FUND: R1099 JOB CODE: FINE AMOUNT:

TOTAL REFUND AMOUNT: $20.00

COMMENTS: Overpmt Amd fee Lic 47-15473-01 CK 518736

(limit comments to 40 characters, including spaces)

PREPARED BY: Rita Messer DATE: 5/6/97

AUTHORIZED BY: DATE:

ORIGINAL INV. NO: DATE PAID: AMOUNT:

REFUND ENTERED INTO COLLECT BY:

REFUND DETERMINED BY: DATE:

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION

257478

7C
AA105 AMD
May 2 11
CK 518736
dated 4/24/97
Item # 460