

VOID SHEET

TO: License Fee Management Branch  
FROM: Hidget Watson  
SUBJECT: VOIDED APPLICATION

Control Number: 395896

Applicant: Moberly Regional Med. Ctr.

Date Voided: 2/3/94

Reason for Void: \_\_\_\_\_

There was a change of ownership only. After review it was ~~necessary~~ decided that an amendment was not necessary.

Hidget Watson 2/3/94  
Signature Date

Attachment:  
Official Record Copy of  
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed:

- Refund Authorized and processed
- No Refund Due
- Fee Exempt or Fee Not Required

140094

Comments: \_\_\_\_\_

Log completed

Processed by: SAC

9403230075 940203  
PDR ADDCK 03014054  
C PDR

REC'D 1/19/94  
3/3/94  
ML  
30 DH

(FOR LFMS USE)  
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 02120  
STATUS CODE: 0  
FEE CATEGORY: 7C 2B  
EXP. DATE: 19950731  
FEE COMMENTS:  
DECOM FIN ASSUR REGDITN

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: MOBERLY REGIONAL MEDICAL CTR.  
RECEIVED DATE: 931012  
DOCKET NO: 3014054  
CONTROL NO.: 395896  
LICENSE NO.: 24-18695-01  
ACTION TYPE: AMENDMENT

SS

10/21

2. FEE ATTACHED

AMOUNT: \$500.00  
CHECK NO.: 2472

3. COMMENTS

SIGNED P. Dittliff  
DATE 10-14-93

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED )

1. FEE CATEGORY AND AMOUNT:

7C 2B

\$500.00

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT   
RENEWAL \_\_\_\_\_  
LICENSE \_\_\_\_\_

3. OTHER \_\_\_\_\_

SIGNED AC  
DATE 10/20/93

1993 OCT 18 PM 4:46

RECEIVED  
OCT 26 1993  
REGION III

\* Reviewer to determine  
Amendment or not 10/21/93

■ Community  
■ Health  
■ Systems, Inc.

October 8, 1993

US Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Gentlemen:

It is the intent of Community Health Systems, Inc. to purchase Moberly Regional Medical Center, Inc. on or about October 20, 1993.

It is also the intent of Community Health Systems to accept ownership and control of the NRC Materials Licenses which currently exists for Moberly Regional Medical Center. Community Health Systems, Inc. will abide by all constraints identified in the existing license. No changes in the use, possession or storage of the licensed materials is intended.

No changes in facility name or radiation Safety Officer are anticipated at the time of the sale and transfer of ownership.

Sincerely,



Michael T. Portacci  
Director  
Hospital Operations Group

MTP:nm

Log	OCT 13 7L
Remitter	
Check No.	8412
Amount	\$500.00
Fee Category	TC 2B
Type of Fee	Amendment
Date Check Rec'd	10/18/93
Date Completed	10/20/93
By:	SC

RECEIVED

OCT 12 1993

REGION III

OCT 12 1993

CUMULATIVE NO. 395896



October 6, 1993

U.S. Nuclear Regulatory Commission

Gentlemen:

It is the expressed will of Midwest Adventist Health Services Corporation, Inc. (MAHSC) to transfer ownership of Moberly Regional Medical Center to Community Health Systems, Inc. Additionally, MAHSC wishes to transfer control of all licensed material and activity, as described in the present NRC Materials License issued in the name of Moberly Regional Medical Center, to Community Health Systems.

It is anticipated that the transfer of ownership will occur on or about October 20, 1993.

Sincerely,

A handwritten signature in cursive script that reads "Gordon Glass".

Gordon Glass  
Treasurer

pd





September 30, 1993

U.S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Gentlemen:

On September 24, 1993 I called your office to notify you of the pending change of ownership of Moberly Regional Medical Center. Gidget Watson returned my call and sent notice 8925 to assist us in preparing the documentation necessary to transfer our Materials License to the new owners of Moberly Regional Medical Center.

Moberly Regional Medical Center is presently owned and operated by Midwest Adventist Health Services (AHS). A letter of intent has been signed with Community Health Systems, Inc., 3707 FM 1960 West, Suite 500, Houston, Texas, to sell Moberly Regional Medical Center to Community Health Systems. We anticipate that the transaction will be completed on or about October 20, 1993.

There will be no change in the hospital name, CEO, or Radiation Safety Officer. The facilities, equipment and personnel will remain essentially unchanged. AHS is a multi-hospital system and will continue to provide medical services at other health care facilities under their ownership. Those facilities providing nuclear medicine services operate under separate NRC licenses and are not affected by this transfer.

The transaction being proposed is essentially an asset purchase agreement. AHS will be selling all buildings, equipment, records, and appurtenances to Community Health Systems in a cash transaction. The name Moberly Regional Medical Center is also being transferred to the new owner along with all licenses and associated rights, to the extent allowed by law.

There are no planned changes in the organization, location, facilities, equipment, procedures or personnel. The only change anticipated is a change of ownership.

No changes in the use, possession or storage of licensed materials are indicated. All records pertaining to the NRC license are current and will be maintained on site at Moberly Regional Medical Center. A copy of the physicist's quarterly review as of June 28, 1993 is enclosed which indicates the status of all radioactive material inventory and accountability requirements. A subsequent quarterly review was performed on September 10, 1993, however, the written report is not yet available. All documentation and records discussed at the Radiation Safety Committee on that date were in compliance at the time of this review.

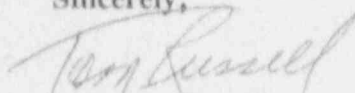


Page 2

Moberly Regional Medical Center is operating appropriately within the confines of the NRC license requirements. No contamination is present at this time. We have enclosed letters from the transferor and transferee documenting their agreement with the change of ownership and control of the licensed material and activity.

We understand that there is a fee of \$500.00 associated with the transfer of the license. A check in this amount is enclosed. If you should have any questions regarding the information provided in this mailing please contact us.

Sincerely,



Thomas Russell  
President

cc Robert Hardison  
John Gillmor  
John Fallon  
Gordon Glass

Enclosure

# NMA

## MEDICAL PHYSICS CONSULTATION

*Consultant's Report - Nuclear Medicine*

1827 Belt Way Drive  
St. Louis, Missouri 63114  
(314) 427-5833

FACILITY: Moberly Regional Medical Center

DATE OF VISIT: 6/28/93

LOCATION: Moberly, Missouri

RSO: Harold Sanders, M.D.

PHYSICIAN(S): Harold Sanders, M.D.

TECHNOLOGIST(S): John Harkness, R.T.

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During this consulting visit, the radiation safety program was reviewed for compliance with regulatory and license requirements and nuclear medicine instrumentation was evaluated for proper operation. The various areas evaluated are itemized on the attached medical physics survey form. Noteworthy items are elaborated upon in the following paragraphs.

It is important to read this report in its entirety. To satisfy the requirements of the regulations, this document should be reviewed and signed by the radiation safety officer and retained on file. Also, it is suggested that all department personnel review and sign this report as it can be considered part of their review of radiation safety.

### I. LICENSING

The facility's radioactive materials license was reviewed through Amendment No. 13. The license is current with no necessary amendment action and all relevant application materials were available for reference.

Mr. Harkness indicated that there are tentative plans for sale of the hospital. Please be aware that any change in the ownership or the name of the institution must be preceded by a license amendment pursuant to 10 CFR Part 30.34(b). As indicated in NRC Information Notice 89-25, "full information on change in ownership or control of license activities should be submitted to the appropriate NRC Regional Office as soon as possible, preferably at least 90 days before the proposed action." Please keep NMA apprised of the ownership status of the hospital. We will prepare the necessary amendment application once the plans have been finalized.

CONTROL NO. 395896

## I. PERSONNEL DOSIMETRY

Personnel dosimetry records were reviewed through 5/14/93. These records revealed exposures which were well within the regulatory limits and consistent with the ALARA principle.

Mr. Harkness indicated that Brian Ashmore has begun training in the nuclear medicine department. Mr. Ashmore currently works in the radiology department and therefore wears a whole body film badge. It will be necessary to obtain an extremity ring badge for Mr. Ashmore prior to allowing him to manipulate radioactive materials.

## III. ADMINISTRATIVE/EDUCATION

A radiation safety committee meeting was held concurrent with this consulting visit. Minutes of the meeting which took place on 3/24/93 were reviewed. All of the necessary information has been incorporated into those minutes.

Under the ALARA program, a formal review of the radiation safety program and ALARA considerations by the management is required to be performed annually. This review was last done in June of 1992 and therefore currently due. Mr. Harkness indicated his intention to schedule this review with a member of administration. Documentation of the review should be maintained for regulatory inspection.

Brian Ashmore is presently training in the nuclear medicine department. Specific requirements for orientation of personnel who will work with radioactive materials are itemized in Item 8.1 and Appendix A of your license application dated 3/28/90. Documentation of his orientation should be maintained for regulatory review. Also, Regulatory Guide 8.13 (instruction concerning prenatal radiation exposure) should be reviewed and documented.

## IV. HEALTH PHYSICS

Due to construction in the nuclear medicine area, the required ventilation rate in the hot lab could not be confirmed. It is a regulatory requirement that Xe-133 gas be stored under negative pressure. For this reason, it was recommended that the Xe-133 vials be stored in the hood and that the hood fan be left on. It is additionally recommended that routine maintenance of the fan be scheduled.



## V. RADIOPHARMACEUTICALS

The records of the receipt, disposition, and patient administration of radiopharmaceuticals were reviewed and found to be current, complete, and in very good order.

## VI. SEALED SOURCES

An inventory of the department's sealed sources was conducted, and all sources were available for inspection. A survey of the ambient exposure rates in the sealed source storage area was performed, and all results were consistent with the ALARA principle. Leak tests were performed on all sources which required them. No removable contamination in excess of 0.005 uCi was found. Specific inventory and wipe test data can be found enclosed with this report.

## VII. SURVEYS

The records of daily and weekly area surveys and wipe tests were reviewed. The surveys appeared to be performed at the required frequency, and all necessary information is contained in the records.

The records of receipt and shipment of radioactive materials were reviewed. It was noted that the wipe tests performed upon receipt and shipment were analyzed with a GM survey meter. This method of wipe test analysis is probably not sufficiently sensitive to detect 22,000 dpm (10 CFR Part 20.205(b2)) or 2,200 dpm (10 CFR Part 173.443). With the recent issuance of NRC Information Notice 93-30 which concerns the requirements for the evaluation of wipe test results, it is recommended that all wipe tests be evaluated using the gamma camera. The efficiency of the gamma camera for performing wipe tests has been determined to be 27%. The minimum detectable activity for the wipe test procedure is 877 dpm.

The records of radioactive waste which is held for decay in storage were reviewed. The records were found to be complete. Upon the request of Mr. Harkness, a standardized form for recording radioactive waste which is held for decay was provided to him. This form provides for all of the necessary information which must be incorporated into the record.

### VIII. POSTINGS/NOTICES

All of the required regulatory postings were noted to be conspicuously displayed in the nuclear medicine department. It was confirmed that the emergency contact telephone numbers listed on the emergency procedures posting were current.

### IX. VENTILATION

The exhaust rates from the nuclear medicine imaging room, hot lab, and the hood were evaluated during using an Alnor, Jr., velometer. The results of the evaluation are documented on page 5 of the Medical Physics Survey. It should be noted that negative pressure could be confirmed in the imaging room. A total exhaust rate of 470 cfm was noted. A minimum of 592 cfm is required for xenon studies to be performed. The radiation safety committee was informed that the performance of xenon studies without negative pressure or adequate air flow is a violation of license conditions.

It is speculated that the significant decrease in the ventilation rates is a result of the recent expansion of the nuclear medicine imaging room. The exhaust system must be adjusted such that the minimum exhaust rate is achieved. It should be confirmed with the construction personnel that there is no recirculation of exhausted air from the nuclear medicine department. The exhausted air must go directly to the environment.

It was recommended that the exhaust rates be professionally re-evaluated as soon as possible to confirm that the minimum air flow of 592 cfm is maintained. Also, once adequate ventilation is confirmed, the emergency evacuation time must be recalculated. Please contact our St. Louis office to notify us of the new ventilation rates and the new room dimensions to be incorporated in this calculation. The evacuation time must be posted in the imaging room.

### X. EQUIPMENT

The radiation survey meters were checked for battery integrity and constancy of response. The batteries were in good condition and all check source readings were within 20% of the expected values.

It was noted that the Victoreen Thyac-490 survey instrument was due for calibration on 4/3/93. Also, the Victoreen 740-F and the Bicorn Surveyor 2000 will be due for calibration prior to the next NMA consulting visit. The Victoreen Thyac-490 and the

740F were removed and forwarded to our Cleveland office for calibration. Once these instruments are returned to you, it is recommended that the Bicron Surveyor 2000 be forwarded for calibration to our Cleveland office at the following address:

9457 Midwest Ave.  
Cleveland OH 44125

The Capintec CRC-5 dose calibrator was evaluated with particular attention to accuracy, constancy, and activity linearity. The results of all of these evaluations showed this instrument to be within the 10% tolerance limits for each parameter. Linearity was confirmed for activities ranging from 29.4 mCi to 37 uCi.

The gamma camera was not evaluated during this audit as it was to be replaced within the following week. The efficiency of the new gamma camera for performing wipe tests will be evaluated during the next consulting visit.

#### XI. RADIOPHARMACEUTICAL THERAPY


One outpatient administration of I-131 took place in the last quarter. The record of this administration was reviewed and found to be complete.

#### XII. QUALITY MANAGEMENT PROGRAM

A form which documents the requirements of the Quality Management Program is completed with each administration of therapeutic I-131. These records were noted to be complete.

Mr. Harkness, your courtesy and assistance during this audit was greatly appreciated. Please contact our St. Louis office if there are any comments or questions concerning this report or any health physics or regulatory concern.

Sincerely,

  
Diane M. Boisvert  
Consultant

DMB:pl

## DOSE CALIBRATOR ACTIVITY LINEARITY CHECK

Dose Calibrator CAPINTEC #7021 Date 6-25-93  
 Model CRC-5 Technologist John Hackness R.T.  
 Source Configuration \* Supine 31.3 mCi <sup>99</sup>Tc Facility: Moberly Regional Medical Center

All readings must be taken at the lowest range setting available and converted to mCi units.

A	B		C**		D
<u>TUBE COLOR</u>	<u>DISPLAYED ACTIVITY</u>		<u>CALIBRATION FACTOR</u>		<u>PRODUCT OF B x C</u>
Black Only	<u>29.4</u> mCi	x	<u>1.00</u>	=	<u>29.4</u>
Black & Red	<u>17.3</u> mCi	x	<u>1.637</u>	=	<u>28.320</u>
Black & Orange:	<u>9.67</u> mCi	x	<u>2.875</u>	=	<u>27.801</u>
Black & Yellow:	<u>2.98</u> mCi	x	<u>9.161</u>	=	<u>27.299</u>
Black & Green:	<u>.863</u> mCi	x	<u>31.754</u>	=	<u>27.403</u>
Black & Blue:	<u>.310</u> mCi	x	<u>88.059</u>	=	<u>27.298</u>
Black & Purple:	<u>.037</u> mCi	x	<u>754.475</u>	=	<u>27.915</u>
				=	_____
			<u>1.10</u> x <u>1.05</u> =	=	<u>30.71</u> = UPPER LIMIT
MEAN = $\frac{\text{SUM}}{7}$ =	<u>27.92</u>		x <u>0.95</u> = <u>0.90</u>	=	<u>25.13</u> = LOWER LIMIT

Compare Column D data to upper and lower limits to confirm linearity.

- \* The source configuration to be used must be that which was used when the calibration factors in Column C were determined.
- \*\* The calibration factors for this column are specific to your dose calibrator and the source geometry used when determined. They can be found on Data Sheet #1 in your Calicheck kit instruction manual.

Harold Standen MD  
R.S.O. Signature





## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

	DATE:	9/8/92	12/7/92	3/23/93	6/28/93
<b>I. LICENSING</b>					
1.	NRC license current. Expires: 7/31/95 Last Amend: 13	YES	YES	YES	YES
2.	State Registration current. Expires: 6/94 Last Amend: 6/92	YES	YES	YES	YES
3.	License Applications and supporting documents available for reference. (19.11)	YES	YES	YES	YES
4.	Authorized/Visiting/Supervised Users and Notifications current. (35.14)	YES	YES	*	YES
5.	Materials/Possession limits current and not exceeded. (A)	YES	YES	YES	YES
6.	Facilities description current. Temporary and remote waste storage sites authorized. Future plans/changes considered.	YES	YES	YES	YES
7.	NRC State Regulations available. (19.11) Last Update: 2/28/92	*	YES	YES	YES
8.	Last regulatory inspection report on file. Corrective action. (19.11) Last inspection date: 4/15/92	YES	YES	YES	YES
<b>II. PERSONNEL DOSIMETRY</b>					
1.	Personnel dosimetry records in order. (20.401) Reviewed through:	*	*	*	YES
			10/14/92	2/15/93	5/14/93
2.	New Employee exposure estimate on file. (20.102)	*	YES	YES	*
3.	Whole body & ring badges worn by all personnel handling or using radioactive materials, as required. (20.202)	YES	YES	YES	YES

(A) All limits "as needed"

## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

DATE:            9/8/92            12/7/92            3/23/93            6/28/93

### III. ADMINISTRATIVE/EDUCATION

1. Radiation Safety Committee meetings & records current. (35.22) Quarterly meeting dates:	YES 9/8/92	YES 12/7/92	*	YES 3/24/93
2. Annual RSC & RSO review of the Radiation Safety Program. (35.22) Last date performed: 6/24/92	YES	YES	*	*
3. Annual Management review of ALARA Program. Last date performed: 6/24/92	YES	YES	*	*
4. Annual review of radiation safety for radiation workers. Last date performed: (A)	YES	YES	YES	YES
5. Annual review of radiation safety for non-radiation workers. Last date performed: 6/92	YES	YES	*	YES 4/93
6. Continuing education documented.	YES	YES	YES	*
7. Regulatory Guide 8.13 records or equivalent current. (19.12)	YES	YES	YES	*
8. Operating Procedure Manual available. (35.21) Date last reviewed: 12/31/92	YES *	YES *	*	YES
9. Medical Physics Survey reviewed & signed by Radiation Safety Officer.	*	YES	YES	YES



(A) Performed quarterly with technologist by NMA.

CONTROL NO. 395896

## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

DATE:            9/8/92            12/7/92            3/23/93            6/28/93

### IV. HEALTH PHYSICS

1. Radioactive materials properly stored.	YES	YES	YES	YES
2. Gloves available and used.	YES	YES	YES	YES
3. Syringe/Vial shields and labels used and completed. (35.60 & 35.61)	YES	YES	YES	YES
4. Adequate shielding during elution, kit preparation, and storage.	YES	YES	YES	YES
5. Hands monitored periodically and prior to leaving the restricted areas.	YES	YES	YES	YES
6. Restricted area secured.	YES	YES	YES	YES
7. Written policy available & in effect for receipt of Radioactive Materials. (35.21 & 20.205)	YES	YES	YES	YES
8. D.O.T. Type A container certification on file.(A)	YES	YES	YES	YES

### V. RADIOPHARMACEUTICALS

1. Kit Preparation/Patient Disposition. Records in order. (35.53)	YES	YES	YES	YES
2. Each patient dose assayed prior to administration. (35.53)	YES	YES	YES	YES
3. Prescribed dosage ranges available.	YES	YES	YES	YES
4. No misadministrations since the last visit. If so, records in order. If applicable, report submitted. (35.53)	YES	YES	YES	YES
5. IND program inactive.	YES	YES	YES	YES
6. Radiopharmacy utilized.	*	YES	YES	YES
7. Mo-99 assay procedure and limits known.	YES	YES	YES	YES

  
 \_\_\_\_\_

(A) Ship only limited quantities.



## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

DATE:      9/8/92      12/7/92      3/23/93      6/28/93

### VI. SEALED SOURCES

1. Sealed Source Inventory completed quarterly. (35.59)	YES	YES	YES	YES
2. Leak Tests completed and results on file. (35.59)	YES	YES	YES	YES
3. RSO signature on file for all inventory & leak test results. (35.59)	*	YES	YES	YES

### VII. SURVEYS

1. Daily and weekly area surveys performed and documented. Stress lab surveys included. (35.70)	YES	YES	YES	* YES
2. Area survey results expressed in mR/hr. Action levels documented. (35.70)	YES	YES	YES	YES
3. Weekly area wipe test performed and documented. (35.70)	YES	YES	YES	YES
4. Area wipe test results expressed in proper units (dpm). Action levels documented. (35.70)	YES	YES	YES	YES
5. Package receipt surveys include readings at surface, 1 meter, empty packing mat'l & wipe test(s). (20.205)	YES	YES	YES	*
6. Package(s) returned to mfg. or radiopharmacy include survey(s), wipe test(s), shipping papers, pkg. seals, & DOT labels, as required. (172.204, 172.402 & 173.433)	YES	YES	YES	*
7. Radioactive materials labels defaced prior to disposal. (20.203)	YES	YES	YES	YES
8. Waste records indicate storage & disposal dates, bkg. & waste surveys, radionuclides, instrument used, & tech. name. (35.92)	YES	YES	YES	YES

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CONTROL NO. 395896

## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

DATE:            9/8/92            12/7/92            3/23/93            6/28/93

**VII. POSTINGS/NOTICES**

1. "Posting" for required documents available. (19.11)	*	YES	YES	YES
2. Form NRC-3/State "Notice to Employees" properly posted. (19.11)	YES	YES	YES	YES
3. Emergency Procedures posted; including updated RSO & telephone numbers.	*	YES	YES	YES
4. "Caution-Radioactive Materials" signs properly posted. (20.203)	YES	YES	YES	YES
5. "Caution-Radiation Area" signs properly posted, if applicable (5 to 100 mR in one hour). (20.203)	YES	YES	YES	YES
6. "Notice of Violation" posted, if applicable. (19.11)	YES	YES	YES	YES
7. Room evacuation time posted and known, in event of Xe-133 accidental release. (35.205)	YES	YES	YES	YES

**IX. VENTILATION**

1. Room ventilation checked semi-annually. (35.205)(A) Last Performed: 6/24/92	YES	YES	YES	YES
Hood		103 cfm		89 cfm
N.M. Room		650 cfm		381 cfm
Door		Neg.		*
2. Xe-133 used & stored under negative pressure. (35.205)	YES	YES	YES	*
3. Xe-133 traps monitored and/or calibrated as required by license condition(s). (35.205)	YES	YES	YES	YES

\_\_\_\_\_ 

(A) Ventilation: Minimum 592 cfm

# MEDICAL PHYSICS SURVEY

FACILITY: Moberly Medical Center

LOCATION: Moberly, Missouri

	DATE:	9/8/92	12/7/92	3/23/93	6/28/93
<b>X. EQUIPMENT</b>					
1. Survey Meter Calibration current. (35.51)		*	*	YES	*
2. Survey meter calibration certificate on file. (35.51)		YES	YES	YES	YES
3. Survey meter check source reading and battery check performed each day of use. (35.51)		YES	YES	*	YES
4. Dose Calibrator Constancy performed & documented each day of use. (35.50) Limit: 10%		YES	YES	YES	YES
5. Dose Calibrator Activity Linearity performed upon installation and quarterly & documentation on file, including RSO signature. (35.50) Limit: 10% Last date performed:		YES	YES	YES	YES
		8/9/92	12/7/92	3/23/93	6/25/93
6. Dose Calibrator Accuracy performed upon installation and annually with documentation on file, including RSO signature. (35.50) Limit: 10% Last date performed: 9/8/92		YES	YES	YES	YES 6/28/93
7. Dose Calibrator Geometry performed upon installation or after repair, & documented including RSO signature. (35.50) Last date performed: 11/12/85		YES	YES	YES	YES
8. Calicheck or Lineator factors current. Confirming linearity test available. Geometry reproduced. Last calibration date: 3/21/91		YES	YES	YES	YES

\_\_\_\_\_ 

CONTROL NO. 395896

## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Medical Center

LOCATION: Moberly, Missouri

DATE: 9/8/92 12/7/92 3/23/93 6/28/93

### X. EQUIPMENT *(continued)*

- |  |     |     |     |     |
|--|-----|-----|-----|-----|
| 9. Gamma camera(s) peaked, with floods performed, each day of use and documented.        | YES | YES | YES | YES |
| 10. Resolution images performed on each gamma camera as required by license condition.   | YES | YES | YES | YES |
| 11. Wipe test efficiency verified.<br>Efficiency: 27% (A)<br>Last date performed: 8/6/90 | YES | YES | YES | YES |
| 12. Decontamination Kit, or materials available.   | YES | YES | YES | YES |

\_\_\_\_\_ 

(A) Bkg = 6240; Counting time = 1 minute, MDA = 877 dpm



# MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

DATE: 9/8/92 12/7/92 3/23/93 6/28/93

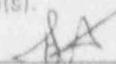
## XI. RADIOPHARMACEUTICAL THERAPY

### A. ALL THERAPY PROCEDURES

- |   |     |     |     |     |
|---|-----|-----|-----|-----|
| 1. Any patient therapeutics performed.  | (A) | (A) | (A) | (C) |
| 2. I-131 opened in accordance with license or regulatory conditions.            |     |     |     | YES |
| 3. Family instructions given for outpatients or upon inpatient discharge.       |     |     |     | YES |
| 4. Dose ordered via prescription.   |     |     |     | YES |
| 5. Bicassays completed as required by regulation or license condition. (35.315) |     |     |     |     |

### B. INPATIENT THERAPY PROCEDURES

1. Inpatients assigned to private room with private bath. (35.315)
2. Disposable gloves worn by nursing personnel.
3. Patient room surveys performed (Allowable times at distance values calculated). (35.315)
4. Adjacent rooms monitored. Adjacent rooms restricted, as required. (35.315)
5. Caution signs placed in patient chart and on room doors. (35.315)
6. Disposable linens, dishes, etc. used.
7. Plastic covering for door-knobs, telephone, handles, etc. used.
8. Nursing personnel monitored per license condition(s).

\_\_\_\_\_ 

(A) No therapies performed since the last survey.  
(B) Only capsular form or closed liquid systems used.  
(C) Only outpatient therapies performed.

CONTROL NO. 395896

## MEDICAL PHYSICS SURVEY

FACILITY: Moberly Regional Medical Center                      LOCATION: Moberly, Missouri

DATE:                      9/8/92                      12/7/92                      2/23/93                      6/28/93

**XI. RADIOPHARMACEUTICAL THERAPY** *(continued)*

- |   |     |     |     |     |
|---|-----|-----|-----|-----|
| 9. Instruction given to all attending personnel & documented.   | (A) | (A) | (A) | (C) |
| 10. Radiation safety instruction provided to patients. (35.315)                                       |     |     |     |     |
| 11. Designated radioactive waste containers installed in room.  |     |     |     |     |
| 12. Patients surveyed prior to release to verify activity remaining is <30 mCi or <5 mrem/hr. (35.75) |     |     |     |     |
| 13. Disposable materials monitored prior to discarding. (35.315)                                      |     |     |     |     |
| 14. Patient room surveyed and wipe tested prior to release for general occupancy. (35.315)            |     |     |     |     |
| 15. Procedures known in case of patient surgery/death.  |     |     |     |     |

**XIII. QUALITY MANAGEMENT PROGRAM**

**A. ADMINISTRATIVE PROCEDURES**

- |  |     |
|--|-----|
| 1. Quality Management Program on file.   | YES |
| 2. Written directives for patient administrations on file.   | YES |
| 3. Patient identification verified by two methods.   | YES |
| 4. Patient administrations are compared to the written directive.  | YES |
| 5. Quality Management Program reviewed annually. Records on file. Last Date:   | --- |
| 6. Effectiveness of Quality Management Program determined. Necessary modifications instituted and submitted to NRC within 30 days.   | --- |
| 7. No recordable events since last consultation. Any events evaluated within 30 days and records of evaluation and response on file. | YES |

\_\_\_\_\_  
 (A) No therapies performed since the last visit.  
 (B) Only capsular form or closed liquid systems used.  
 (C) Only outpatient therapies performed.



# MEDICAL PHYSICS SURVEY SURVEY METER EVALUATION

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

Type:	G-M	Ion	G-M	G-M
Mfg.:	Victoreen	Victoreen	Technical Associates	Bicron
Model No.:	Thyac-490	7	SML-2	2000
Serial No.:	2309		032217	A203X
Ck Source & Geometry	Integral Source	10 uCi Cs-137 button. Radiation sign facing mylar window. Plastic cap removed	Integral	Integral
Calibrated	4/3/92	9/18/91	Area monitor	9/18/91
Calibrated	*	9/17/92	not calibrated	9/17/92
Calibrated		*	12/17/92	*

	Batt. mR/hr	Batt. mR/hr..Zero	Batt. mR/hr	Batt. mR/hr..Int
Date				
9/8/92	OK-0.95	OK-146-OK	OK-0.9	OK-1.6-OK
12/7/92	*	OK-92-OK	OK-0.9	OK-1.4-OK
3/23/93	OK-.85	OK-90-OK	OK-0.70	OK-1.3-OK
6/28/93	OK-0.8	OK-**-OK	OK-0.6	OK-1.5-OK



# MEDICAL PHYSICS SURVEY DOSE CALIBRATOR EVALUATION ACCURACY TEST

FACILITY: Moberly Regional Medical Center

MODEL No.: Capintec CRC-5

LOCATION: Moberly, Missouri

SERIAL No.: 51506

Date	Cs-137 (220) Cal/Disp/ % (uCi)	Ba-133 (624) Cal/Disp/ % (uCi)	Co-57 (112) Cal/Disp/ % (mCi)	Sealed Source Set Used	Test	Bkg Zero	Linearity Test
	9/8/92	186/187/+0.5%	189/191/+1.1%	0.666/0.675/+1.0%	#2	158.4	OK
12/7/92	---	---	---	---	156.2	OK	26.2mCi-34.3uCi
3/23/93	---	---	---	---	155.5	OK	---
6/28/93	206/207/0.9%	179/172/4.0%	314/321/1.0%	#1	155.8	OK	29.4mCi-37uCi

(A) Battery Replaced

Set #1 [STL] Cs-137, Mod. #NES-356, S/N 3560686A-19, Ba-133, Mod. #NES-358, S/N 3580786A-13, Co-57, Mod. #NES-CTC.V1, S/N Bx-617  
 Set #2 [STL] Cs-137, Mod. #NES-356, S/N 356002-24-24, Ba-133, Mod. #NES-358, S/N 358001-08, Co-57, Mod. #NES-CTC.V1, S/N Bx-597  
 Set #3 [STL] Cs-137, Mod. #NES-356, S/N 3560186A-21, Ba-133, Mod. #NES-358, S/N 358010-001, Co-57, Mod. #NES-CTC.V1, S/N 9354MA  
 Set #4 [STL] Co-57, Mod. #CTC.V1, S/N Cs-354 (if activity above 1 mCi)

REC Signature 

CONTROL NO. 395896



# MEDICAL PHYSICS SURVEY DOSE CALIBRATION EVALUATION CONSTANCY READINGS

FACILITY: Moberly Regional Medical Center

MODEL No.: Capintec CRC-5

LOCATION: Moberly, Missouri

SERIAL No.: 51506

Date		Mo-99	Tc-99m	Ga-67	I-131	Xe-133	Tl-201	Cs-137	I-123	In-111	I-123
		(030) No Shield uCi	(080) uCi	(100) uCi	(151) uCi	(188) uCi	(205) uCi	(220) uCi	(277) uCi	(303) uCi	(380) uCi
9/8/92	B	424	303	266	211	181	172	---	139	129	---
	M	423	300	267	211	182	172	164	138/108	129	108
12/7/92	B	423	300	269	211	182	171	---	139	130	---
	M	427	301	268	210	183	172	164	139	129	108
3/23/93	B	415	295	264	206	178	170	---	137	128	---
	M	419	296	264	208	180	169	161	136	126	107
6/28/93	B	413	296	262	205	179	168	---	136	128	---
	M	415	292	262	207	179	168	161	135	126	106

Source: Cs-137

Activity: 224 uCi

Model: NES-356, S/N 3560279B-1B

Calibration: 2/22/79

## MEDICAL PHYSICS SURVEY GAMMA CAMERA EVALUATION

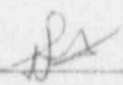
FACILITY: Moberly Regional Medical Center

MODEL No.: Siemens ZLC-370

LOCATION: Moberly, Missouri

ROOM No.:

Date	PHA	INTEN (M)	SENSIT cpm/uCi	SATUR HI/NOR/LO (Kcps)	FLOOD	INTRIN RES-DIR	OFF PEAK	LINEARITY
6/24/92	140 @ 20%	.010L	314	107	OK	3.5mm -3.0mm	OK	OK
9/8/72	Camera	Service						
12/7/92	140 @ 20%	010L	311	107	*	3.5mm-3.0mm	OK	OK
3/23/93	140 @ 15%	10L	300	107	*	3.5mm-3.0mm	OK	OK
6/28/93	To be replaced							



Technique parameters:

- (A) Sensitivity with 140 keV collimator.
- (B)  $20 \times 10^6$  counts, 6 on 1 format, 8 x 10 size film.

CONTROL NO. 395896

**MEDICAL PHYSICS SURVEY  
BRACHYTHERAPY & OTHER SEALED SOURCE STORAGE SITE SURVEYS**

FACILITY: Moberly Regional Medical Center

LOCATION: Moberly, Missouri

LOCATION OF SURVEY AND RESULTS IN MREM/HR

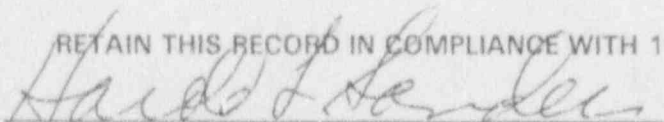
DATE	SURVEY METER (Serial Number)	A	B	C	SURVEYOR
9/8/92	A203X	0.05	0.03	0.15	TWD
12/7/92	A203X	0.03	0.2	0.4	TWD
3/23/93	A203X	0.0	0.14	0.3	MB
6/28/93	A203X	0.05	0.04	0.05	DMB

LOCATION KEY:

- A. Long-term storage in basement
- B. Co-57 Flood Cab
- C. L-shield

RETAIN THIS RECORD IN COMPLIANCE WITH 10 CFR 35.59(i)

RSO Signature



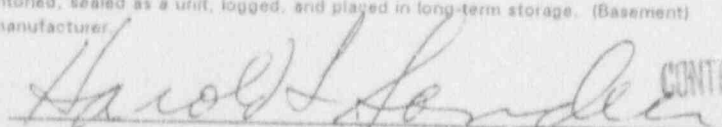
## MEDICAL PHYSICS SURVEY SEALED SOURCE INVENTORY

FACILITY: Moberly Regional Medical Center      DEPARTMENT: Nuclear Medicine  
 LOCATION: Moberly, Missouri

Nuclide:	Ca-137	Co-60	Co-57	Co-57	Cs-137	Ca-137	Co-57	
Type:	Vial E	Vial E	Vial	Button	Button	Marker	Flood Source	
Location:	Behind L-shield Hot Lab	Permanent Storage Room	Permanent Storage Room	Hood Hot Lab	Hood Hot Lab	(A)	Permenant Storage Room	
Assay: (Date)	224 uCi 2/22/79	52 uCi 5/8/81	5.71 mCi 9/18/79	50 uCi 1/85	10 uCi	< 1 uCi	2 mCi 11/15/86	
Mgr:	NEN	NEN	Nuclear Assoc.	NEN			NEN	
Serial No.:	3500278 818	3540681A- 40	7129-02	2890185A		89	390002-02	
Model:	NES-356	NES-354		NES-289	N/A	N/A	NES-390	
Date:								
9/8/92	X	X(A)	X(A)	X	X	X(A)	X	TWD
12/7/92	X	X(A)	X(A)	X	X	X(A)	X	TWD
3/23/93	X	X(A)	X(A)	X	X	X(A)	X	MB
6/28/93	X	X(A)	X(A)	X	X	X(A)	X	DMB

X - INDICATES SOURCE INVENTORIED  
 A - Sources inventoried, sealed as a unit, logged, and placed in long-term storage. (Basement)  
 B - Returned to manufacturer

RSO Signature



CONTROL NO. 395896

## MEDICAL PHYSICS SURVEY SEALED SOURCE INVENTORY

FACILITY: Moberly Regional Medical Center

DEPARTMENT: Nuclear Medicine

LOCATION: Moberly, Missouri

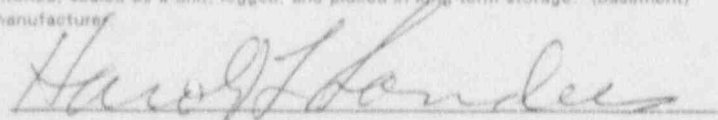
Nuclide:	Co-57	Co-57	
Type:	Flood Source	Flood	
Location:	Perma Storage Room	Hot	
Assay: (Date)	10 uCi 10/15/88	10 mCi 10/23/92	
Mgr:	DuPont	CIS	
Serial No.:	392088-04	203-1932	
Model:	NE5-392	EH5C40	
Date:			
8/8/92	X		TWD
12/7/92	X	X	TWD
3/23/93	X	X	
6/28/93	X	X	DMB

X - INDICATES SOURCE INVENTORIED

A - Sources inventoried, sealed as a unit, logged, and placed in long-term storage. (Basement)

F - Returned to manufacturer

RSO Signature





## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY: Moberly Regional Medical Center      DEPARTMENT: Nuclear Medicine  
 LOCATION: Moberly, Missouri      ATTENTION: John Harkness

Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.005  $\mu\text{Ci}$ , unless otherwise noted, when compared against NIST traceable standards.

Source: Cs-137 Vial E, 224  $\mu\text{Ci}$ , 2/22/79, NEN #3560279B-18

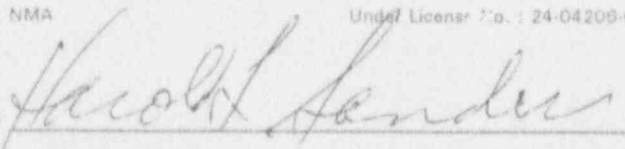
Date:	9/8/92	12/7/92	3/23/93	6/28/93
Wipe No.:	SL 2832	SL 3041	SL 3251	SL 3475
MDA ( $\mu\text{Ci}$ ):	3.40 E-5	3.40 E-5	3.40 E-5	3.40 E-5
Net CPM:	2	0	0	0
Net $\mu\text{Ci}$ :	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 $\mu\text{Ci}$ :	1470	1470	1470	1470
Analyst:	DMG	TWD	TWD	DMB

Source: Co-57, Flood, 10.3 mCi (381 MBq), 10/23/92, CIS, Mod. #EHSC40, S/N 203-1932

Date:	12/7/92	3/23/93	6/28/93
Wipe No.:	SL 3042	SL 3252	SL 3476
MDA ( $\mu\text{Ci}$ ):	6.27 E-6	6.27 E-6	6.27 E-6
Net CPM:	0	6	0
Net $\mu\text{Ci}$ :	< MDA	< MDA	< MDA
CPM for 0.005 $\mu\text{Ci}$ :	10,362	10,362	10,362
Analyst:	TWD	TWD	DMB

Performed by: NMA      Under License No. : 24-04206-08MD and 34-16272-01

RSO Signature



CONTROL NO. 395896

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

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

EMPLOYEE/VENDOR/PAYEE CODE: \* \_\_\_\_\_

NAME: Community Health Systems, Inc.

ADDRESS: Attn: Michael T. Portacci, Director

ADDRESS: 155 Franklin Road Suite 400

CITY: Brentwood STATE: TN ZIP: 37027

TRANS CODE: PX TRANS TYPE: \_\_\_\_\_ FUND: \_\_\_\_\_

JOB CODE: \_\_\_\_\_ (FOR FE TRANS TYPE) REFUND AMOUNT: \$500<sup>00</sup>

COMMENTS: Lic 24-18695-01 Amd Rfnd

Ltr dtd 10/8/93 :

(limit comments to 40 characters, including spaces)

PREPARED BY: Shirley Crutchfield DATE: 2/25/94

AUTHORIZED BY: Cheryl Crutchfield TITLE: 3/1/94

OFFICE: L FIC 5/OC DATE: 3/1/94 Law, G. et al  
audit

ORIGINAL INVOICE #: \_\_\_\_\_ DATE PAID: \_\_\_\_\_ AMOUNT: \$ \_\_\_\_\_

REFUND ENTERED INTO COLLECT BY: \_\_\_\_\_

REFUND DETERMINED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION.

\* AN ADDRESS MUST BE PROVIDED FOR VENDORS NOT FOUND ON THE VEND TABLE.

JH