



DEPARTMENT OF THE ARMY
OFFICE OF THE SURGEON GENERAL
WASHINGTON, D.C. 20314

Control No.
~~1556~~

MEDPS-PO

KSI
18 May 1971

Mr. John Bowyer
Isotopes Branch
Division of Materials Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Bowyer:

Your attention is invited to the attached correspondence pertaining to the amendment of AEC License Number 05-00046-13, for Fitzsimons General Hospital, Denver, Colorado.

Recommend approval of this application.

Sincerely,

James E. Anderson
JAMES E. ANDERSON
LTC, MSC
Preventive Medicine Division

1 Incl
as

CF:
CO, USAEHA

COPIES
SENT TO COMPLIANCE

23015

A/72



DEPARTMENT OF THE ARMY
FITZSIMONS GENERAL HOSPITAL
DENVER, COLORADO 80240

1555

MEDEO-X

6 May 1971

SUBJECT: Amendment of Byproduct Material License

THRU: Commanding General
Fitzsimons General Hospital
Denver, Colorado 80240

JWW
10 May 71

TO: The Surgeon General
Department of the Army
ATTN: MEDPS-P
Washington, D. C. 20314

1. Submitted is an amendment of our Byproduct Material License, number 05-00046-13, to permit the use of as follows:

a. It is requested that we be permitted to keep Xenon-133 in saline up to two (2) curies because of the convenience and safe handling. Our present license permits us to keep up to two (2) curies of Xenon-133 (gas) and 50 millicuries of Xenon-133 (in saline) for pulmonary function studies and myocardial blood flow studies respectively. This material will be used for inhalation studies for the most part. Materials for intravenous injections will be obtained from commercial suppliers. The Oak Ridge Laboratories supply ampules of gaseous Xenon-133. Systems are commercially available which permit the transfer of gas into the saline. We presently do not have such a system. We are able to acquire Xenon-133 from the University of Colorado and Veterans Medical Center in Denver. This material is transferred in lead containers of appropriate thickness for safe transportation. The amounts involved in the transfer are recorded in both the inventories at the University of Colorado, Veterans Medical Center and Fitzsimons General Hospital. All Xenon-133, be it gas or in saline, is stored under the exhaust in our laboratory behind appropriate shielding. There is a Picker monitor on during the entire working day for personnel safety.

b. Xenon-133 in saline is much easier to work with. Two triple valve clocks are used. The first is on the 30 to 50cc syringe in which

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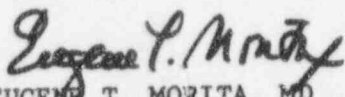
Xenon-133 in saline is stored. The second is on a large collecting syringe. After the two syringes are connected the valves are set for the transfer. The plunger of the storage syringe is pushed until sufficient amounts of Xenon-133 in saline has been transferred to the collecting syringe. After the transfer is made, a large quantity of air is aspirated into the collecting syringe. This causes the Xenon-133 to come out of solution. The Xenon-133 is then used for the single breath study, and single breath ventilation study.

c. Xenon-133 collected during the study is placed in a Douglas Bag and then expelled into an open area outside of the laboratory. Monitoring shortly after the expulsion has not revealed significant count rates in the areas.

d. Previous users in our clinic have been licensed up to 74 mc of Xenon-133 for pulmonary function studies but at the present time we have limited our use to around 15mc for single breath technique. In a closed system rebreathing technique, higher doses will be required.

e. It seems reasonable, therefore, that our request for increasing the amount of Xenon-133 in saline to 2 curies be approved since the purpose of the Xenon-133 is for safety and for pulmonary function studies. As previously mentioned, commercial suppliers will be utilized for the intravenous use of Xenon-133. Similarly, if myocardial blood flow studies are done similar commercial supply will be utilized.

FOR THE COMMANDER:


EUGENE T. MORITA, MD
Maj, MC
Chief, Nuclear Medicine Service

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

✓
1550ed
4-26-71

File

1. Applicant: Department of the Army Fitzsimons General Hospital and Address: U.S. Army Medical Research and Nutrition Laboratory City: Denver State: Colorado	2. Control No. 21272 (KSD)
4. Name and title of trained individual Raymond F. Burk, Jr., M.D.	3. Department 5. Type program: <input type="checkbox"/> Private practice. <input type="checkbox"/> Private practice in hospital. <input checked="" type="checkbox"/> Institutional.
6. Review: <input checked="" type="checkbox"/> First. <input type="checkbox"/> Second.	7. Previous application control No. (s) 16753 21431

8. Remark on checked items:

☐ A. All radioisotopes and uses stated in application.

☒ B. Use of carbon 14 as glucose for metabolic studies

☐ C. Training and experience of user.

REVIEW: all members

☐ D. Dosage(s) indicated.

☐ E. Clinical techniques and procedures outlined.

☐ F. Type patient used (i.e., terminal, infants, normal).

☐ G. Other

9. Action of Subcommittee on Human Applications:

☒ Approve.

☐ Disapprove.

Remarks:

May 3, 1971

(Date of appraisal)

Signature

John E. Christian
John E. Christian, Ph.D.
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

Issued
4-26-71

1. Applicant: Department of the Army
Fitzsimons General Hospital and
Address: U.S. Army Medical Research and
Nutrition Laboratory
City: Denver State: Colorado

2. Control No. 21272 (KSD)

3. Department

4. Name and title of trained individual

Raymond F. Burk, Jr., M.D.

5. Type program:

☐ Private practice.

☐ Private practice in hospital.

☒ Institutional.

6. Review:

☒ First.

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16753 21431

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☐ G. Other

9. Action of Subcommittee on Human Applications:

☒ Approve.

☐ Disapprove.

Remarks:

4/28/71
(Date of appraisal)

Signature

Henry N. Wagner, Jr.
(Member of subcommittee)

APPRAISAL

*Issued
4-26-71
File*

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☐ G. Other

9. Action of Subcommittee on Human Applications:

☒ Approve.

☐ Disapprove.

Remarks:

April 23, 1971
(Date of appraisal)

Signature

Robert J. Shatt

(Member of subcommittee)

File

APPRAISAL

<p>1. Applicant: Department of the Army Fitzsimons General Hospital and Address: U.S. Army Medical Research and Nutrition Laboratory City: Denver State: Colorado</p>	<p>2. Control No. 21272 (KSD)</p> <p>3. Department</p>
<p>4. Name and title of trained individual</p> <p>Raymond F. Burk, Jr., M.D.</p>	<p>5. Type program:</p> <p><input type="checkbox"/> Private practice.</p> <p><input type="checkbox"/> Private practice in hospital.</p> <p><input checked="" type="checkbox"/> Institutional.</p>
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<p>9. Action of Subcommittee on Human Applications:</p> <p><input checked="" type="checkbox"/> Approve. <input type="checkbox"/> Disapprove.</p> <p>Remarks:</p>	

Original signed by M. A. Bender, M.D.

4-23-71

(Date of appraisal)

Signature

[Handwritten Signature]

(Member of subcommittee)

APPRAISAL

<p>1. Applicant: Department of the Army Fitzsimons General Hospital Address: City: Denver State: Colorado</p>	<p>2. Control No. 21431 (J)</p>
<p>4. Name and title of trained individual Raymond F. Burk, M.D., CPT, MC</p>	<p>3. Department</p> <p>5. Type program: <input type="checkbox"/> Private practice. <input type="checkbox"/> Private practice in hospital <input checked="" type="checkbox"/> Institutional.</p>
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REVIEW: all members

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☐ G. Other

9. Action of Subcommittee on Human Applications:

☐ Approve.

☐ Disapprove.

Remarks:

*Refer to Medical colleagues on the need for
of the proposed study*

April 23, 1971
(Date of appraisal)

Signature

Robert A. Hale
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

1550ed
4-26-71

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- ☐ G. Other

REVIEW: all members

9. Action of Subcommittee on Human Applications:

- ☒ Approve. ☐ Disapprove.

Remarks:

22 April 71
(Date of appraisal)

Signature

David E. Hull, M.D.
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

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REVIEW: all members

4/22/71

(Date of appraisal)

Signature

Original Signed by
C. D. WEST, M.D.
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

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9. Action of Subcommittee on Human Applications: <input checked="" type="checkbox"/> Approve. <input type="checkbox"/> Disapprove. Remarks:	

22 apr 71
(Date of appraisal)

Signature

J. L. Smith, III, M.D.
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

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REVIEW: all members

9. Action of Subcommittee on Human Applications:

- ☒ Approve. ☐ Disapprove.

Remarks:

22 April 71
(Date of appraisal)

Signature

J. L. Lunn, III, MD
(Member of subcommittee)

APPRAISAL

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- ☐ G. Other

REVIEW: all members

9. Action of Subcommittee on Human Applications:

- ☒ Approve. ☐ Disapprove.

Remarks:

22 Apr 71
(Date of appraisal)

Signature

David E. Kuhl, M.D.
(Member of subcommittee)

U.S. ATOMIC ENERGY COMMISSION
MEDICAL ADVISORY COMMITTEE

APPRAISAL

1. Applicant: Department of the Army
Fitzsimons General Hospital
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City: Denver State: Colorado

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☐ G. Other

REVIEW: all members

9. Action of Subcommittee on Human Applications:

☐ Approve.

☐ Disapprove.

Remarks:

(Date of appraisal)

Signature

(Member of subcommittee)

APPRAISAL

Issued
5/25/71

1. Applicant: Department of the Army Fitzsimons General Hospital Address: City: Denver State: Colorado	2. Control No. 21431 (JEB)
4. Name and title of trained individual Raymond F. Burk, M.D., CPT, MC	3. Department 5. Type program: <input type="checkbox"/> Private practice. <input type="checkbox"/> Private practice in hospital. <input checked="" type="checkbox"/> Institutional.
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- ☐ G. Other

REVIEW: all members

9. Action of Subcommittee on Human Applications:

- ☒ Approve. ☐ Disapprove.

Remarks:

A/73

9-22-71

(Date of appraisal)

Signature

Original signed by M.A. Bender, M.D.

M.A. Bender, M.D.
(Member of subcommittee)

5