

VOID SHEET

TO: License Fee Management Branch  
FROM: Wm. ADAM, Region III  
SUBJECT: VOIDED APPLICATION

Control Number: 90218  
Applicant: Curators of Univ. of MO  
Date Voided: 9-19-90  
Reason for Void: Licenses withdrawn  
request prior to review.

L/10 24-00513-32

W. Adam 9-19-90  
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

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

Log completed   
Processed by: CP

RECEIVED  
OCT 22 AM 10:36  
U.S. MAIL  
FEDERAL BUREAU OF INVESTIGATION

ML30

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
: PROGRAM CODE: 02110  
: STATUS CODE: 2  
: FEE CATEGORY: EX 7C  
: EXP. DATE: 19880531  
: FEE COMMENTS: 170.11(A)(9)  
: ::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
APPLICANT/LICENSEE: CURATORS OF THE UNIVERSITY OF MD  
RECEIVED DATE: 900917  
DOCKET NO: 3002278  
CONTROL NO.: 390218  
LICENSE NO.: 24-00513-32  
ACTION TYPE: AMENDMENT

2. FEE ATTACHED  
AMOUNT: -----  
CHECK NO.: -----

3. COMMENTS

SIGNED P. Dittloff  
DATE 9-18-90

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

1. FEE CATEGORY AND AMOUNT: ----- **FEE EXEMPT**  
2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:  
AMENDMENT -----  
RENEWAL -----  
LICENSE -----

3. OTHER -----  
-----

SIGNED W  
DATE 9/17/90



CONVERSATION RECORD

TIME

11:10A

DATE

9-19-90

TYPE

VISIT

CONFERENCE

TELEPHONE

INCOMING

OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Lew Pitchford

ORGANIZATION (Office, dept., bureau, etc.)

Univ. of MO

TELEPHONE NO.

SUBJECT

C/W's 90218 and 90217

L/W's

24-00513-32 and 070-00270

SUMMARY

Licensee requested me void

amendment requests dtd. 9-13-90  
(for L/W 24-00513-32) and dtd.  
9-10-90 (for L/W 070-00270).

ACTION REQUIRED

Void as requested.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

W. Adam

DATE

9-19-90

ACTION TAKEN

SIGNATURE

TITLE

DATE



UNIVERSITY OF MISSOURI SYSTEM

Office of Research Safety

518 Clark Hall  
Columbia, Missouri 65211  
Telephone (314) 882-3721

September 13, 1990

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

ATTENTION: William J. Adam, Ph.D.

RE: Amendment of License No. 24-00513-32 to delete sources, reduce and increase activity, add P-32 as a separate item, and add uses not previously described to NRC.

RECEIVED  
90 SEP 21 11:43  
U.S. DEPT. OF ENERGY  
LICENSES

Dear Bill:

The purpose of this letter is to request an amendment for the University's broad license. Attached please find a list of those items of the broad license that should be changed. This amendment, along with several others issued since January, 1989, will provide the University with a well-defined license. The next paragraphs give an explanation of the attachment for you.

The April 28, 1988 application to renew the broad license indicated deletion of several sources that are noted on Attachment A, Item 5, Page 3, Footnote 8. Those sources are included in the attached list. Since that renewal application was prepared, several other sources were identified for deletion and they also appear in the attachment. Several Items are requested to be combined with a similar Item that is on the license. In those cases, a reduction in the maximum possession limits is requested or deletion of the Item is requested.

The maximum possession activity for Mo-99/Tc-99m generators should be doubled to accommodate increasing clinical and research needs for Tc-99m. P-32 is included in Item A, but the 3 Ci limit is being approached as new research projects are approved by the Central Radiation Safety Committee. The attachment requests 4 Ci for P-32.

In the past, Item L pertained to storage of mixed activation products that were present in articles moved from the research reactor to radioactive waste storage. The attachment describes additional forms of activated materials that will also be held in storage.

RECEIVED

SEP 17 1990

REGION III

SEP 17 1990

*Sept 17*  
FEE EXEMPT  
170.1102(CA)  
efal/190  
CONTROL NO.

90218

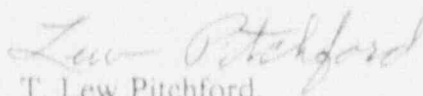
NRC, Bill Adam  
September 13, 1990

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In preparation of this amendment request, a specific question has occurred that pertains to the relationship of an individual radionuclide's maximum possession limit indicated for Item A (3 Ci) and the maximum possession limit for that radionuclide in another item e.g. Sm-153 (Item SS, 40 Ci) and P-32 (Item TT, 4 Ci, as per the attached request). Would the limits for these 2 examples be 43 Ci and 7 Ci, respectively; or 40 Ci and 4 Ci, if one ignores Item A altogether? Clarification of this matter would help us understand the license precisely and would be greatly appreciated.

Bill, I understand that you are very busy these days with added responsibilities in your licensing section. I hope this amendment request is clear to you, but if it becomes problematic, please telephone me or Tom Young. As always, I thank you for your consideration.

Sincerely,

  
T. Lew Pitchford,  
Radiation Safety Officer

Enclosure (as stated)

cf Mark Burkholder, Ph.D.  
Wynn Volkert, Ph.D.

CONTROL NO. 90218

LIST OF CHANGES FOR BROAD LICENSE ITEMS  
UNIVERSITY OF MISSOURI, NRC LICENSE NO. 24-00513-32

The following items of radioactive material should be deleted from the license as each item is no longer in possession of the University or it has been combined with another Item currently listed on the license:

- C. Co-60, Sealed sources, 1 Ci; combined with Item A.
- D. H-3, Accelerator targets, 100 Ci (no target to exceed 100 mCi).
- E. Au-198, Any chemical/physical form, 1 Ci; combined with Item A.
- M. Cf-252, Electroplated foils, 10 sources (0.1  $\mu$ g, 52  $\mu$ Ci, each).
- N. Cf-252, Sealed source, 1  $\mu$ g, 520  $\mu$ Ci.
- P. Am-241, Sealed sources, 100 mCi total, no single source to exceed 10 mCi; combined with Item I.
- T. Am-241, Sealed source (Monsanto Research Model MRC-N-SS-W-AmBe), 3 Ci.
- U. Po-210, Sealed sources (Monsanto Research Corporation Model MRC-A-SS-P-Po), 5 Ci.
- V. Am-241, Sealed source, 100 mCi; combined with Item K.
- CC. Mo-99/Tc-99m, Solid, 4500 Ci each (9000 Ci total).
- DD. Na-24, Irradiation cans for CC., 50 Ci.
- II. Dy-159, Sealed sources, 4 Ci.
- LL. Sm-153, Sealed sources, 200 Ci.
- MM. Gd-153, Sealed sources, 200 Ci.
- NN. Dy-159, Sealed sources, 200 Ci.
- OO. Tm-170, Sealed sources, 200 Ci.

It is recognized that records of transfer must be maintained for a period of 3 years and records of disposal must be maintained until termination of the broad license for those items that are no longer in the possession of the University.

The activity for the following item should be reduced so that only one sealed source is identified. Other smaller sources previously included in this item will be combined with Item A.

H. Cs-137, Sealed source, from 6 to 4 Ci.

The activity of the following item should be increased so that adequate coverage for medical, research and development, student instruction, and instrument calibration is maintained:

J. Mo-99, Tc-99m generators; increase from 6 to 12 Ci.

The storage of variously activated materials should be added as indicated below. The item was previously requested for activation products in the form of aluminum cans, lead shot used for ballast, and quartz ampules in which the target material was sealed.

L. Mixed Activation Products, Any, 10 Ci. Add other activated materials: (1) contaminated handling tools that were activated during use in the reactor pool, (2) unwanted irradiation products that are produced incidental to production of a specific radionuclide that is the object of the irradiation, (3) activation products that occur in a sample that was irradiated for the purpose of studying those activation products, and (4) gemstones (topaz) that are returned from the distributors to MURR for radioactive decay in storage only.

The final request is that P-32 should be added because the activity limit afforded by Item A (3 Ci) is no longer sufficient for the increasing needs of the University. Please add the following Item to the broad license:

TT. P-32, Any chemical/physical form, 4 Ci; to used for research and development, as defined in Section 30.4 of 10 CFR 30; medical research, diagnosis, and therapy; laboratory instruction and instrument calibration.