

MATERIALS LICENSE

Amendment No. 04

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.

301131

Licensee

1. The Ohio State University
Office of Environmental and
Occupational Health and Safety
2. Room 210
1314 Kinnear Road
Columbus, OH 43212-1194

In accordance with letter dated
March 15, 1996

3. License Number 34-00293-14 is amended in
its entirety to read as follows:

4. Expiration Date July 31, 1996

5. Docket or
Reference No. 030-31605

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. Cobalt-60

A. Sealed sources
(which have been
registered pursuant
to 10 CFR Part 32,
Section 32.210 or
equivalent Agreement
State regulations)

A. 21,000 curies

9. Authorized Use:

- A. To be used in a self-contained wet storage irradiator for in-water irradiation studies described in application dated March 5, 1990 (excluding flammable and explosive materials) and student instruction.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at the Ohio State University Nuclear Reactor Laboratory, Bulk Shielding Facility Pool, 1298 Kinnear Road, Columbus, Ohio.
11. Licensed material shall be used by, or under the supervision of, Richard D. Myser, Joseph W. Talnagi, or Michael J. Davis.
12. The Radiation Protection Officer for the activities authorized by this licensee is Robert E. Peterson.

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PDR ADOCK 03031605
C PDR

COPY

2 ml
230
50

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

34-00293-14

Docket or Reference Number

030-31605

Amendment No. 04

13. The ion exchange resin filter bed shall be monitored as specified in application dated March 5, 1990 (Item 10.3). If any radioactivity above normal background is detected, the licensee shall determine if the radioactivity is due to a leaking source. Any source found to be leaking shall be removed from service. A report of a leaking source shall be made within 5 days of the date the leak test result is known to the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch.
14. The licensee shall not perform repairs or alternations of the irradiator involving removal of shielding or access to the licensed material. Installation, relocation, removal, replacement, and disposal of sealed sources in the irradiator shall be performed by, or under the supervision and in the physical presence of Richard D. Myser, Joseph W. Talnagi, or Michael J. Davis, or other persons specifically licensed by the Commission or an Agreement State to perform such services.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
16. Written instructions described in Item 10.4.2 of application dated March 5, 1990 shall be followed and a copy of these instructions shall be made available to each individual using or having responsibility for use of licensed material.
17. The licensee shall maintain records of information important to safe and effective decommissioning at the location specified in Condition 10. per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. 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 March 5, 1990 (with attachments); and
 - B. Letters dated December 7, 1990, July 2, 1991, August 29, 1994, April 15, 1996 and September 9, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date October 10, 1996

By [Signature]
Nuclear Materials Licensing Branch, Region III

COPY

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03521
STATUS CODE: 0
FEE CATEGORY: EX 3G
EXP. DATE: 19960731
FEE COMMENTS: 170.11(A)(4)
DECOM FIN ASSUR REQD: Y

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: OHIO STATE UNIVERSITY (THE)
RECEIVED DATE: 960322
DOCKET NO: 3031605
CONTROL NO.: 301131
LICENSE NO.: 34-00293-14
ACTION TYPE: AMENDMENT

R3

1076 APR - 2 AM 9:22

2. FEE ATTACHED

AMOUNT: 0
CHECK NO.: 0

3. COMMENTS

SIGNED
DATE

D. Hersey
3-26-96

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

1. FEE CATEGORY AND AMOUNT: EX 3G 170.11

FEE EXEMPT

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

AMENDMENT ☒
RENEWAL ☐
LICENSE ☐

3. OTHER

SIGNED
DATE

SC
4/2/96

RECEIVED
APR 08 1996
REGION III

RECEIVED BY LFDCB

Date April 2, 1996

Log APR 2 TU

By SC

Date Completed 4/2/96



Office of Environmental
Health and Safety

1314 Kinnear Road, Room 210
Columbus, OH 43212-1168

Phone 614-292-1284
FAX 614-292-6404

March 15, 1996

Ms. Patricia Pelke
Materials Licensing Section
US Nuclear Regulatory Commission, Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

RE: Amendment Request for NRC License 34-00293-14
Docket Number 030-31605

Dear Ms. Pelke:

As Richard Myser, approved supervisor for the above NRC license (34-00293-14), has discussed with you, we are requesting an amendment to allow us flexibility in procuring additional cobalt-60 sources. Item 8.A of the license allows us to possess up to fifteen (15) sources of not more than 1400 curies per source with the total not to exceed 21,000 curies. We request the following change in item 8.A:

Total possession not to exceed 21,000 curies.

By eliminating the limit on total number of sources and activity per source, this will allow us greater flexibility to procure various cobalt-60 sources. Currently we have fourteen (14) sources with a total of approximately 7,125 curies. Therefore, only one (1) source could be procured unless one (1) or more are disposed. We would like to maintain all current sources and perhaps obtain more in the future.

If you have any questions concerning this request please contact Richard Myser at (614) 292-6755.

Thank you.

Sincerely,

Cecil R. Smith, D.P.H.
Assistant Vice President

cc Robert Peterson University Radiation Safety Officer
Richard Myser Approved User Reactor

FEE EXEMPT
170.11(A)(4)

RECEIVED

MAR 22 1996

REGION III

22 1996
30/131

OCT 15 1996

Cecil R. Smith, D.P.H.
Assistant Vice President
The Ohio State University
Office of Environmental and
Occupational health and Safety
Room 210
1314 Kinnear Road
Columbus, OH 43212-1194

Dear Mr. Smith:

Enclosed is Amendment No. 04 to your NRC Material License No. 34-00293-14 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 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 Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer 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).
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;

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- b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. 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. 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 Policy and Procedures for NRC Enforcement Actions. 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 when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Cassandra F. Frazier
Nuclear Materials Licensing Branch

License No.: 34-00293-04
Docket No.: 030-31605

Enclosure: Amendment No. 04

DOCUMENT NAME: M:\03031605.CL6

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII								
NAME	CFRAZIER:jaw								
DATE	10/4/96								

OFFICIAL RECORD COPY



Office of Environmental
Health and Safety

1314 Kinnear Road, Room 210
Columbus, OH 43212-1168

Phone 614-292-1284
FAX 614-292-6404

Ms. Sandra Frazier
Materials Licensing Section
US Nuclear Regulatory Commission, Region III
801 Warrenville Road
Lisle, IL 60532-4351

August 9, 1996

Re: Response to request for additional information on the Amendment Request for
USNRC License 34-00293-14, Docket No. 030-31605, Control No. 01131

Dear Ms. Frazier:

As you discussed with Mr. Richard Myser on 8/7/96, the following information is
being provided for your review.

1. The storage basket is located in the NE corner of the irradiator pool (see Fig. 1).
It sits on the bottom of the pool in a rack that prevents the basket from tipping
over (see Fig. 2).
2. We understand that the requested total possession not to exceed 21,000 Curies
refers to Co-60 in the irradiator plus that in storage.
3. Procedure IP-04, "How to Use the Co-60 Irradiator", requires that one check the
pin location each time the irradiator is used. Typical utilization is at least once
per month. While we do a separate inventory semiannually, the check of the pins
before each irradiator use is confirmation that all pins are accounted for.
4. We understand that all sealed sources that we might acquire in the future must
meet the performance criteria of 10CFR36.21.

If you have questions concerning this information, please contact Richard Myser at
(614) 292-6755.

Sincerely,

Cecil R. Smith, Dr.P.H.
Assistant Vice President for Environmental Health and Safety

cc: Robert Peterson, University Radiation Safety Officer
Richard Myser, Approved User of Co-60 Irradiator

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AUG 21 1996

REGION III

Pm. 8-15-96

AUG 21 1996

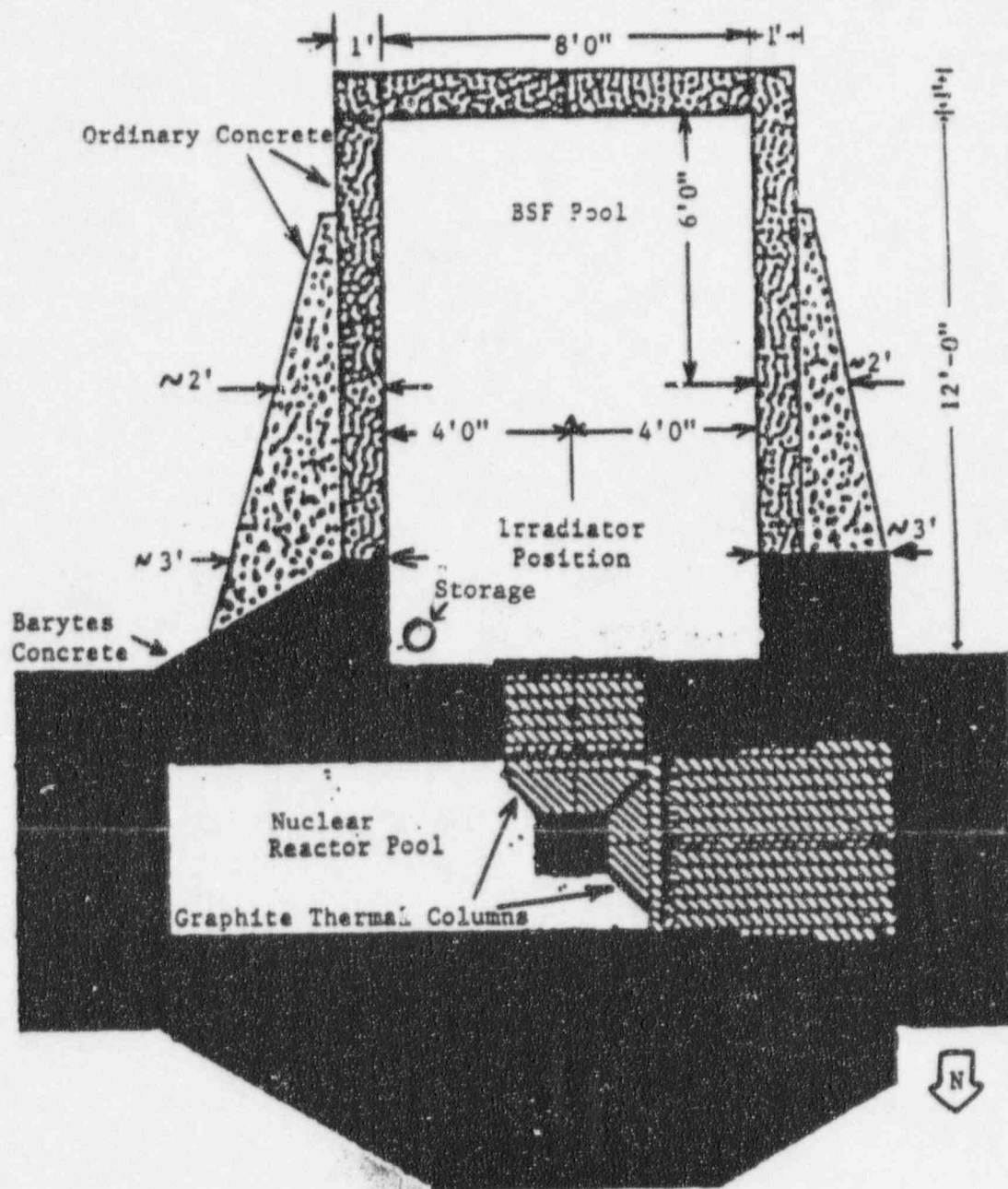


Figure 1 : Plan View of Reactor Pool and Bulk Shielding Facility Pool; Showing Location of Co-60 Irradiator and storage

PIN STORAGE
BASKET

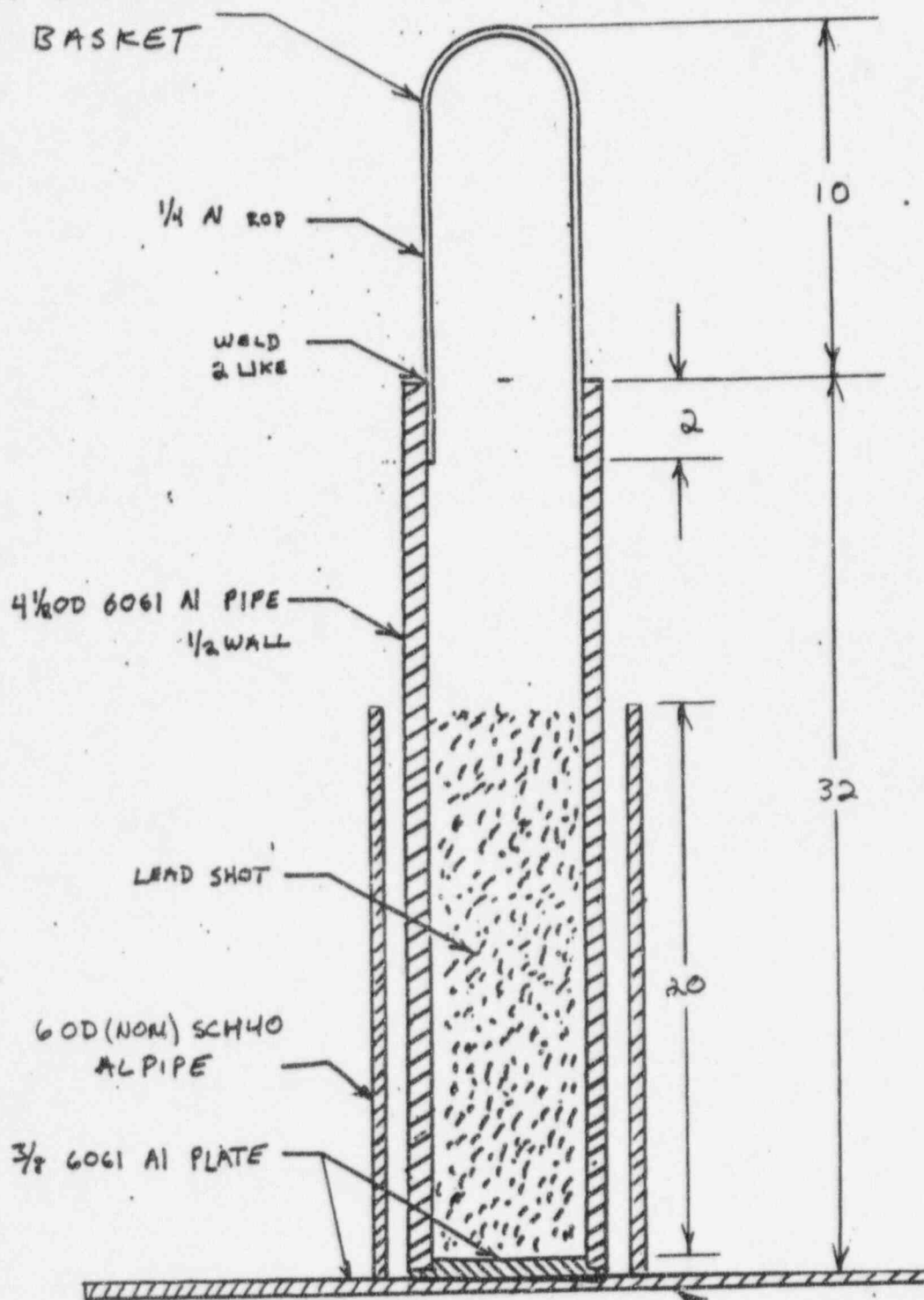


Figure 2 Pin Storage Basket and Support Rack

BASKET STORAGE
RACK