

3-15734-01
03009673

VOID SHEET

TO: License Fee Management Branch
FROM: Evelyn MATSON
SUBJECT: VOIDED APPLICATION

Control Number: 301916

Applicant: Indiana University School of Medicine

Date Voided: 2/3/97

Reason for Void: licensee stated they wish to withdraw
their request at this time in order to gather
the necessary information to support their
request in the future. voided after review.
licensee will resubmit request in future

Ed Miller = 2/3/97
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: 070024

Log completed ☒
Proc essed by: SC 2/5/97

0/1
ML
30
SD

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

Program Code: 03620
Status Code: 0
Fee Category: EX 3M
Exp. Date: 20020331
Fee Comments: 170.11(A)(4)
Decom Fin Assur Req'd: N

R9

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: INDIANA UNIVERSITY SCHOOL OF MEDIC.
Received Date: 961004
Docket No: 3009673
Control No.: 301916
License No.: 13-15734-01
Action Type: Amendment

2. FEE ATTACHED

Amount: X
Check No.: X

* ADDL INFO
301672 - R9

Signed
Date

A. Hersey
10-1-96

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

1. Fee Category and Amount: EX 3M (INDIANA) (CF)

2. Correct Fee Paid. Application may be processed for:

Amendment X
Renewal
License

3. OTHER

Signed
Date

SC
10/15/96

1996 OCT 11 PM 3:50

OCT 23 1996

| | |
|------------------|----------------------|
| RECEIVED BY LFMS | |
| Date | <u>OCT. 11, 1996</u> |
| Log | <u>OCT 5 III</u> |
| By | <u>SC</u> |
| Date Completed | <u>10/15/96</u> |

INDIANA UNIVERSITY



EVANSVILLE CENTER
FOR MEDICAL
EDUCATION

17 September 1996

Materials Licensing Section
801 Warrenville Road
Lisle, IL 60532-4351
ATTN: Ms. Evelyn R. Matson

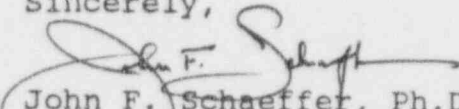
Dear Ms. Matson,

Enclosed is the additional information you requested in your letter of August 20, 1996 in regard to NRC Material License No. 13-15734-01 Control No. 301672.

See close out survey, room schematics and data, for Medical Education Building, 8600 University Boulevard (Appendix A) and close out survey, room schematics and data, for Health Sciences Building, 1901 East Walnut Street (Appendix B).

I hope this information will permit the decommissioning of these sites and allow their deletion from our license.

Sincerely,


John F. Schaeffer, Ph.D.
Radiation Protection Officer
(812) 465-1206

8600 University Boulevard
Evansville, Indiana
47712

812-464-1831
Fax: 812-465-1184

RECEIVED
OCT 04 1996
REGION III

rs096.1170.11(A)(4)
FEE EXEMPT

OCT 04 1996

Pm: 9-30-96

301716

Appendix A: Close out survey of Medical
Education Building, 8600 University
Boulevard, Evansville, IN 47712

after cleaning

PAGE: 1

ID: BIOCHEMISTRY

17 FEB 1995 10:01

USER: 7 COMMENT:
PRESET TIME : 5.00
DATA CALC : CPM H# : NO SAMPLE REPEATS: 1 PRINTER : EDIT
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : OFF
TWO PHASE : NO AGC : NO CYCLE REPEATS : 1
SCINTILLATOR: LIQUID LUMEX: NO LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 3H %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

| SAM NO | POS | TIME MIN | 3H CPM | ELAPSED TIME |
|--------|------|----------|--------|--------------|
| 1 | **1 | 5.00 | 39.40 | 5.27 |
| 2 | **2 | 5.00 | 33.80 | 10.66 |
| 3 | **3 | 5.00 | 32.60 | 16.04 |
| 4 | **4 | 5.00 | 27.00 | 21.43 |
| 5 | **5 | 5.00 | 72.80 | 26.82 |
| 6 | **6 | 5.00 | 38.60 | 32.21 |
| 7 | **7 | 5.00 | 47.00 | 37.59 |
| 8 | **8 | 5.00 | 43.00 | 43.04 |
| 9 | **9 | 5.00 | 54.80 | 48.43 |
| 10 | **10 | 5.00 | 52.20 | 53.81 |
| 11 | **11 | 5.00 | 67.00 | 59.21 |
| 12 | **12 | 5.00 | 54.80 | 64.62 |
| 13 | **1 | 5.00 | 49.20 | 70.13 |
| 14 | **2 | 5.00 | 36.60 | 75.52 |
| 15 | **3 | 5.00 | 32.00 | 80.91 |
| 16 | **4 | 5.00 | 27.60 | 86.31 |
| 17 | **5 | 5.00 | 50.20 | 91.69 |
| 18 | **6 | 5.00 | 65.20 | 97.09 |
| 19 | **7 | 5.00 | 60.20 | 102.50 |
| 20 | **8 | 5.00 | 42.00 | 107.89 |
| 21 | **9 | 5.00 | 47.40 | 113.29 |
| 22 | **10 | 5.00 | 47.00 | 118.69 |
| 23 | **11 | 5.00 | 46.80 | 124.10 |
| 24 | **12 | 5.00 | 31.20 | 129.49 |
| 25 | **1 | 5.00 | 29.00 | 134.99 |

*Final Swipes for Medical
Education Building in
Preparation for decommission*

*3 research labs
1 multipurpose (student) lab
1 wash room*

*No other areas were
used for isotopes*

See a Hatched floor diagram

Before Cleaning

PAGE: 1

ID: BIOCHEMISTRY

15 FEB 1995 16:12

USER: 7 COMMENT:

PRESET TIME : 5.00
DATA CALC : CPM H# : NO SAMPLE REPEATS: 1 PRINTER :EDIT
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : OFF
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1
SCINTILLATOR: LIQUID LUMEX: NO LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 3H %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

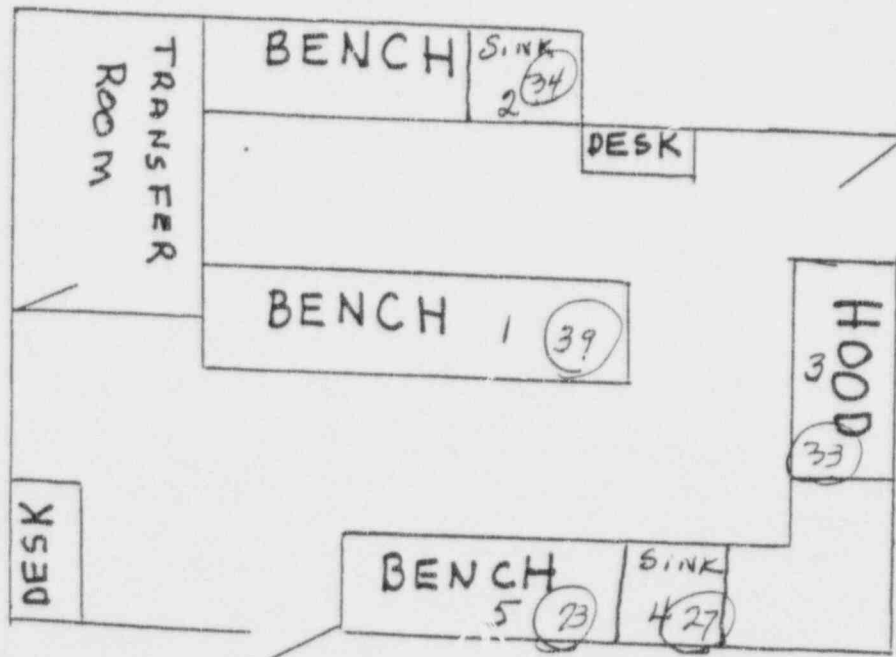
| SAM NO | POS | TIME MIN | 3H CPM | ELAPSED TIME |
|--------|------|----------|--------|--------------|
| 1 | **1 | 5.00 | 39.80 | 5.51 |
| 2 | **2 | 5.00 | 202.20 | 10.90 |
| 3 | **3 | 5.00 | 32.00 | 16.28 |
| 4 | **4 | 5.00 | 69.20 | 21.68 |
| 5 | **5 | 5.00 | 64.60 | 27.06 |
| 6 | **6 | 5.00 | 44.00 | 32.44 |
| 7 | **7 | 5.00 | 55.00 | 37.84 |
| 8 | **8 | 5.00 | 53.80 | 43.30 |
| 9 | **9 | 5.00 | 55.20 | 48.69 |
| 10 | **10 | 5.00 | 51.80 | 54.09 |
| 11 | **11 | 5.00 | 63.60 | 59.52 |
| 12 | **12 | 5.00 | 54.60 | 64.93 |
| 13 | **1 | 5.00 | 47.60 | 70.43 |
| 14 | **2 | 5.00 | 35.20 | 75.83 |
| 15 | **3 | 5.00 | 40.40 | 81.22 |
| 16 | **4 | 5.00 | 76.40 | 86.63 |
| 17 | **5 | 5.00 | 48.40 | 92.02 |
| 18 | **6 | 5.00 | 62.40 | 97.41 |
| 19 | **7 | 5.00 | 63.00 | 102.83 |
| 20 | **8 | 5.00 | 36.00 | 108.23 |
| 21 | **9 | 5.00 | 43.20 | 113.63 |
| 22 | **10 | 5.00 | 46.80 | 119.03 |
| 23 | **11 | 5.00 | 41.60 | 124.43 |
| 24 | **12 | 5.00 | 31.00 | 129.84 |
| 25 | **1 | 5.00 | 30.20 | 135.34 |

SWIPE TEST REPORT

DATE: 2-17-95

Room: 16

Building: Medical Education



Recommendations:

OK

Signature: _____

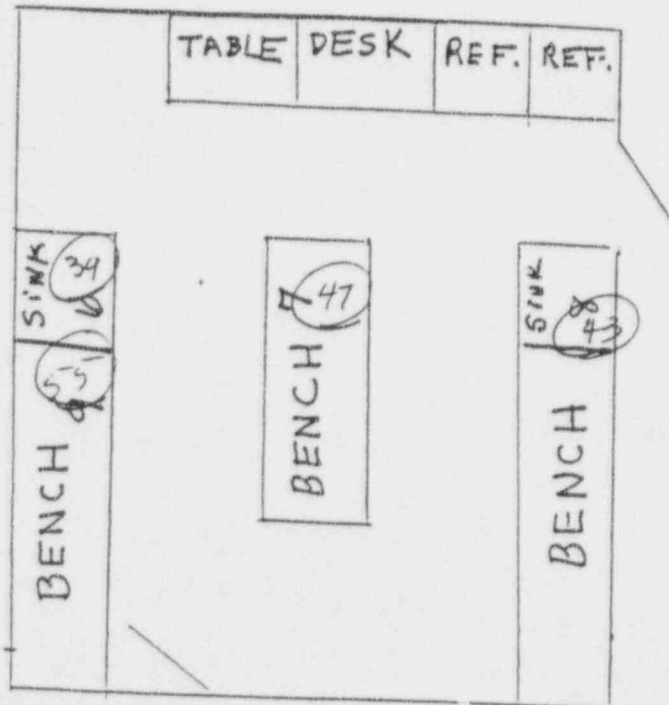
[Handwritten Signature]

SWIPE TEST REPORT

Date: 2-17-95

Room: 20

Building: Medical Education



Recommendations:

all

Signature: _____

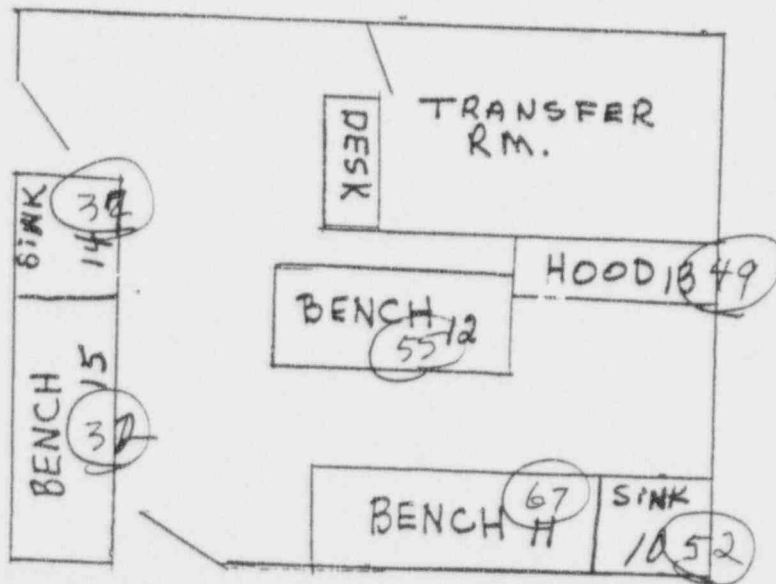
[Handwritten Signature]

SWIPE TEST REPORT

Date: 2-17-95

Room: 23

Building: Medical Education



Recommendations:

OK

Signature: _____

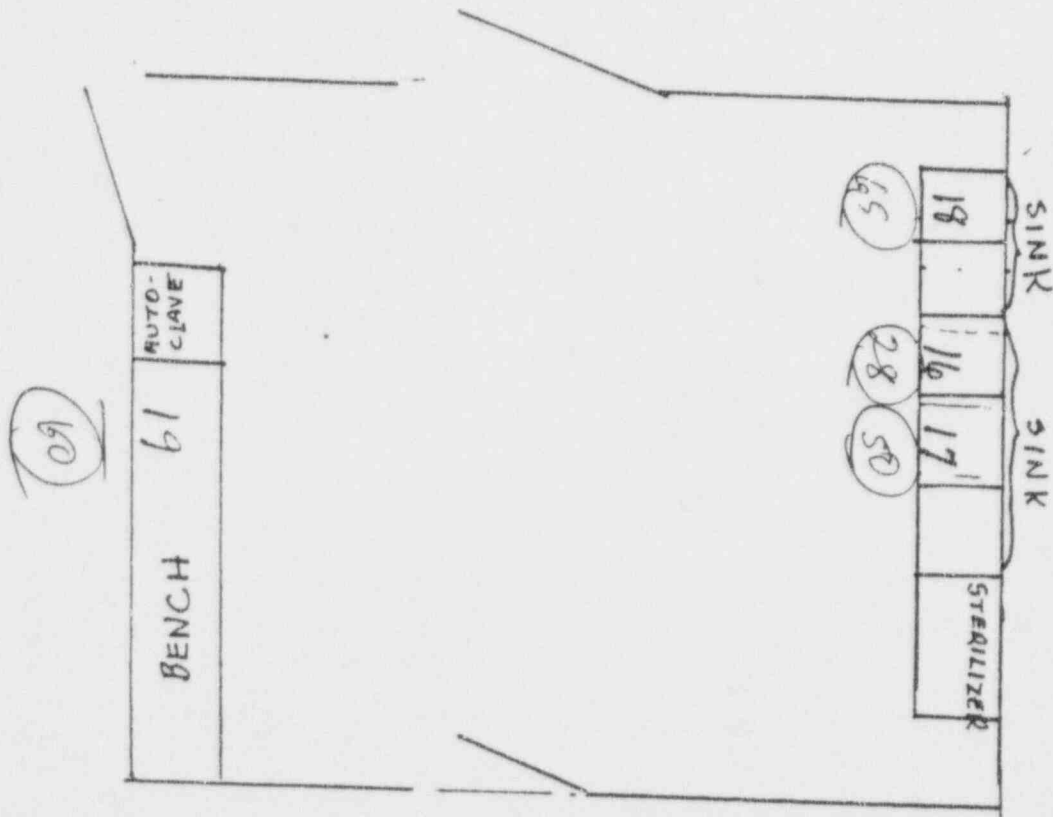
[Handwritten signature]

SWIPE TEST REPORT

Date: 2-17-95

Room: 9

Building: Medical Education



Recommendation:

Ok

Signature: _____

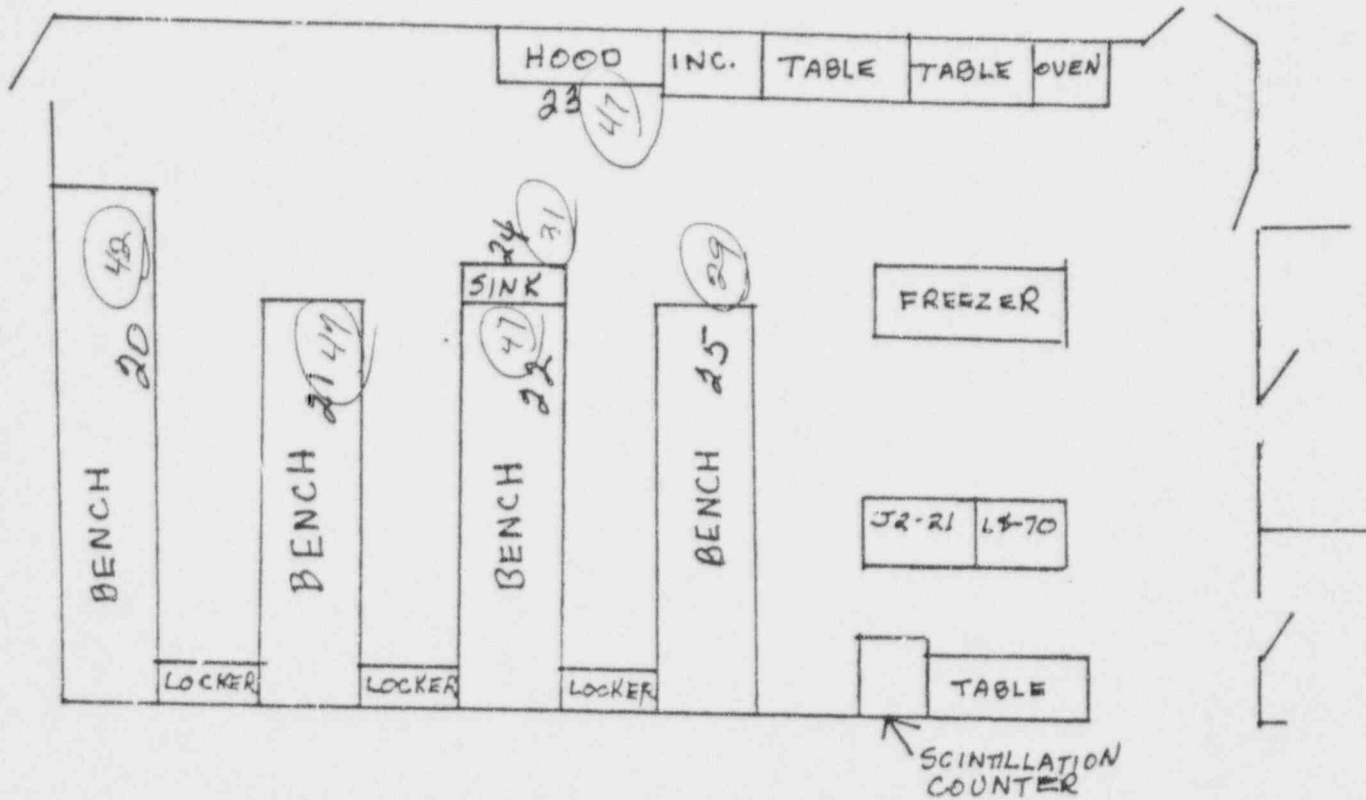
George L...

SWIPE TEST REPORT

Date: 2-17-95

Room: 6

Building: Medical Education



Recommendation:

Ok

Signature: George Allen

PRG 8 - USER 8

SR CH H12 - 1 TIMES
CR - 1 TIMES

SCR = OFF

ACC = ON

SP = OFF

CALC =

POT = 10.00 MIN

CH 1 2.00 2 SIGMA %

.0 LSR

.0 BKG

.00 2 SIGMA B

397 LL

655 UL

CH 2 2.00 2 SIGMA %

.0 LSR

.0 BKG

.00 2 SIGMA B

397 LL

655 UL

SAMP POS CH CPM 25% TIME ELTIME RH

| | | | | | | | | | |
|------|-----|---|-------|-------|-------|--------|----|-----|---|
| ✓ 1 | 120 | 1 | 15.60 | 16.01 | 10.00 | 11.84 | 65 | 317 | N. wall * 1 |
| | | 2 | 14.00 | 16.43 | | | | | |
| ✓ 2 | 121 | 1 | 10.30 | 14.65 | 10.00 | 23.02 | 64 | 317 | N. wall * 2 |
| | | 2 | 15.30 | 16.15 | | | | | |
| ✓ 3 | 122 | 1 | 15.60 | 16.01 | 10.00 | 34.31 | 66 | 317 | Under radioactive storage barrel |
| | | 2 | 15.90 | 16.86 | | | | | |
| ✓ 4 | 123 | 1 | 15.40 | 16.11 | 10.00 | 45.00 | 65 | 324 | Hood |
| | | 2 | 16.70 | 16.47 | | | | | |
| ✓ 5 | 124 | 1 | 12.40 | 12.14 | 10.00 | 57.03 | 67 | 324 | Central table |
| | | 2 | 12.40 | 12.14 | | | | | |
| ✓ 6 | 125 | 1 | 15.00 | 16.32 | 10.00 | 61.71 | 61 | 324 | Sink |
| | | 2 | 15.00 | 16.32 | | | | | |
| ✓ 7 | 126 | 1 | 17.80 | 14.98 | 10.00 | 80.13 | 59 | 329 | Scintillation Counter |
| | | 2 | 17.10 | 15.28 | | | | | |
| ✓ 8 | 127 | 1 | 14.10 | 16.83 | 10.00 | 91.52 | 62 | 329 | West wall "Radioactive" Desk (SE corner) |
| | | 2 | 14.00 | 16.90 | | | | | |
| ✓ 9 | 128 | 1 | 17.80 | 15.06 | 10.00 | 102.71 | 64 | 329 | West corner Bench |
| | | 2 | 17.00 | 14.93 | | | | | |
| ✓ 10 | 129 | 1 | 16.70 | 15.47 | 10.00 | 113.90 | 62 | 329 | Hood Sink Trap |
| | | 2 | 16.10 | 16.06 | | | | | |
| ✓ 11 | 130 | 1 | 15.00 | 16.71 | 10.00 | 125.02 | 57 | 330 | Hood |
| | | 2 | 17.00 | 16.23 | | | | | |

Appendix B: Close out survey of Health Sciences Building, 1901 East Walnut Street, Evansville, IN 47722

2/9/95

| SAMP | PDS | CH | CPM | 25% | TIME | ELTIME | H# | |
|------|-----|----|-------|-------|-------|--------|-----|----------------------------------|
| ✓12 | 131 | 1 | 17.40 | 15.16 | 10.00 | 136.27 | 66 | 330 East Sink |
| | | 2 | 19.60 | 14.28 | | | | |
| ✓3 | 132 | 1 | 20.50 | 13.96 | 10.00 | 148.20 | 53 | 330 West bench Bench |
| | | 2 | 16.90 | 15.38 | | | | |
| ✓14 | 133 | 1 | 16.90 | 15.38 | 10.00 | 159.60 | 53 | 330 south bench Bench |
| | | 2 | 16.90 | 15.38 | | | | |
| ✓5 | 134 | 1 | 13.00 | 17.53 | 10.00 | 170.79 | 80 | 330 Hood sink trap |
| | | 2 | 16.20 | 14.82 | | | | |
| ✓6 | 135 | 1 | 18.70 | 14.62 | 10.00 | 182.81 | 61 | 330 south sink trap |
| | | 2 | 18.00 | 14.90 | | | | |
| ✓17 | 136 | 1 | 17.70 | 15.02 | 10.00 | 193.60 | 61 | 331 East bench |
| | | 2 | 16.90 | 15.38 | | | | |
| ✓18 | 137 | 1 | 15.60 | 16.01 | 10.00 | 204.78 | 60 | 331 Hood |
| | | 2 | 15.10 | 16.26 | | | | |
| ✓9 | 138 | 1 | 16.00 | 15.42 | 10.00 | 216.30 | 65 | 331 Island |
| | | 2 | 17.40 | 15.16 | | | | |
| ✓20 | 139 | 1 | 17.30 | 15.20 | 10.00 | 227.72 | 58 | 331 Refrigerator |
| | | 2 | 15.50 | 15.06 | | | | |
| ✓21 | 140 | 1 | 15.80 | 15.71 | 10.00 | 239.01 | 70 | 331 Hood Sink Trap |
| | | 2 | 15.70 | 15.71 | | | | |
| ✓22 | 141 | 1 | 15.90 | 15.66 | 10.00 | 250.22 | 60 | 332 Refrigerator |
| | | 2 | 16.40 | 15.60 | | | | |
| ✓23 | 142 | 1 | 17.20 | 15.24 | 10.00 | 264.61 | 65 | 332 East counter |
| | | 2 | 16.50 | 15.56 | | | | |
| ✓24 | 143 | 1 | 12.10 | 10.10 | 10.00 | 281.42 | 122 | 332 N. counter |
| | | 2 | 19.10 | 14.47 | | | | |
| ✓25 | 144 | 1 | 14.40 | 16.66 | 10.00 | 293.01 | 73 | 332 W. cabinet |
| | | 2 | 18.20 | 14.82 | | | | |
| ✓26 | 145 | 1 | 23.50 | 13.04 | 10.00 | 304.29 | 121 | 332 Trap |
| | | 2 | 17.10 | 15.71 | | | | |
| ✓27 | 146 | 1 | 18.00 | 14.20 | 10.00 | 315.48 | 60 | 335 Hood |
| | | 2 | 15.10 | 15.26 | | | | |
| ✓28 | | 1 | 15.10 | 15.26 | 10.00 | 326.67 | 60 | 335 East cabinet |
| | | 2 | 15.10 | 15.26 | | | | |
| ✓29 | 148 | 1 | 15.60 | 16.01 | 10.00 | 338.19 | 66 | 335 West cabinet |
| | | 2 | 15.10 | 16.21 | | | | |

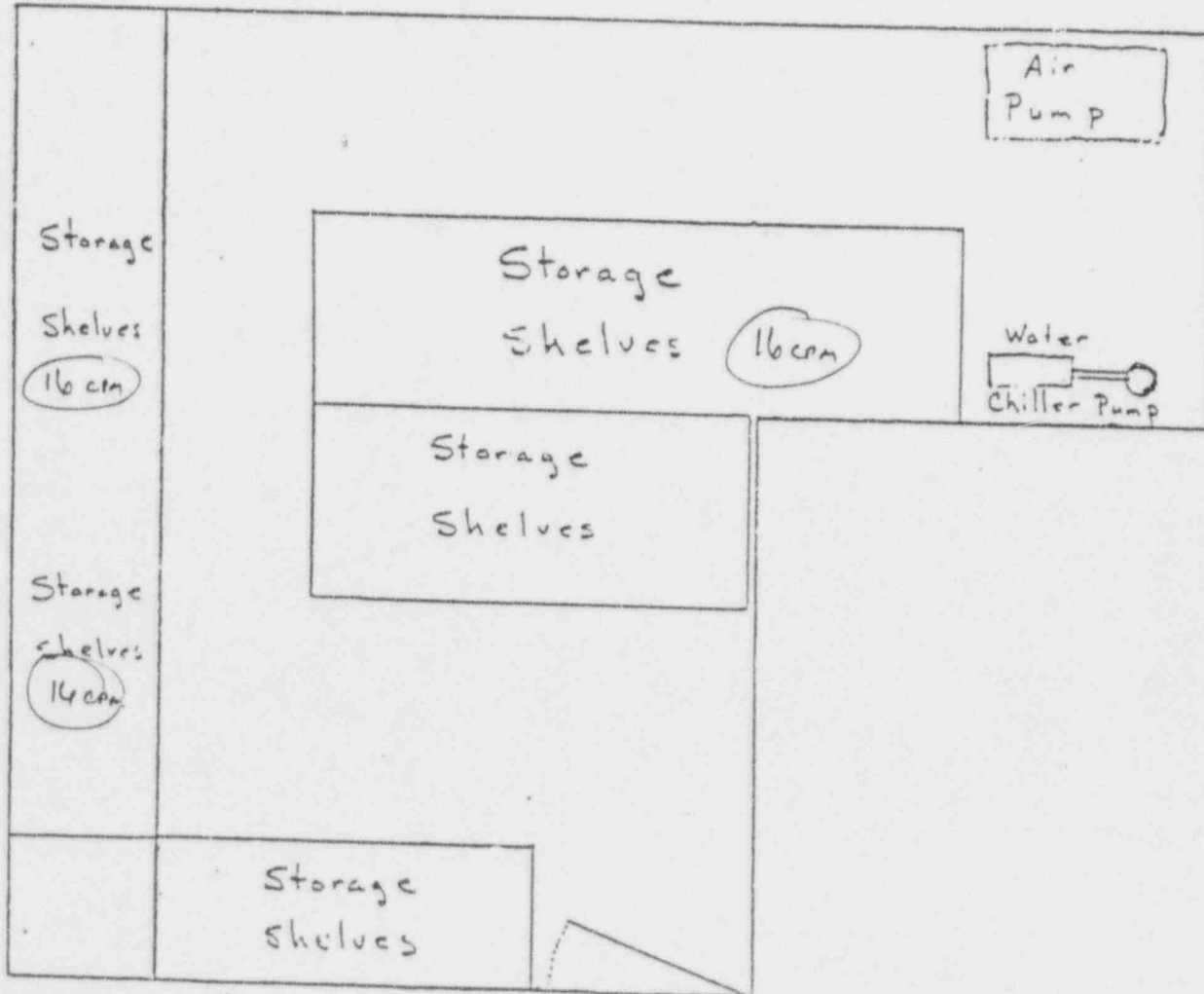
| SAMP | P00 | CH | SPM | 25% | TIME | ELTIME | NR | |
|------|-----|----|-------|-------|-------|--------|----|--------------------|
| ✓ 00 | 149 | 1 | 17.00 | 18.06 | 10.00 | 349.74 | 62 | 335 Refrigerator |
| | | 2 | 10.00 | 18.42 | | | | |
| ✓ 01 | 150 | 1 | 9.10 | 20.94 | 10.00 | 353.67 | 87 | 335 East Sink Trap |
| | | 2 | 18.10 | 14.30 | | | | |

SWIPE TEST REPORT

DATE: 2/9/95

ROOM: 317

BUILDING: Health Science Bldg.



Room 317

OK.

SIGNATURE: _____

John F. Schumpp

SWIPE TEST REPORT

DATE:

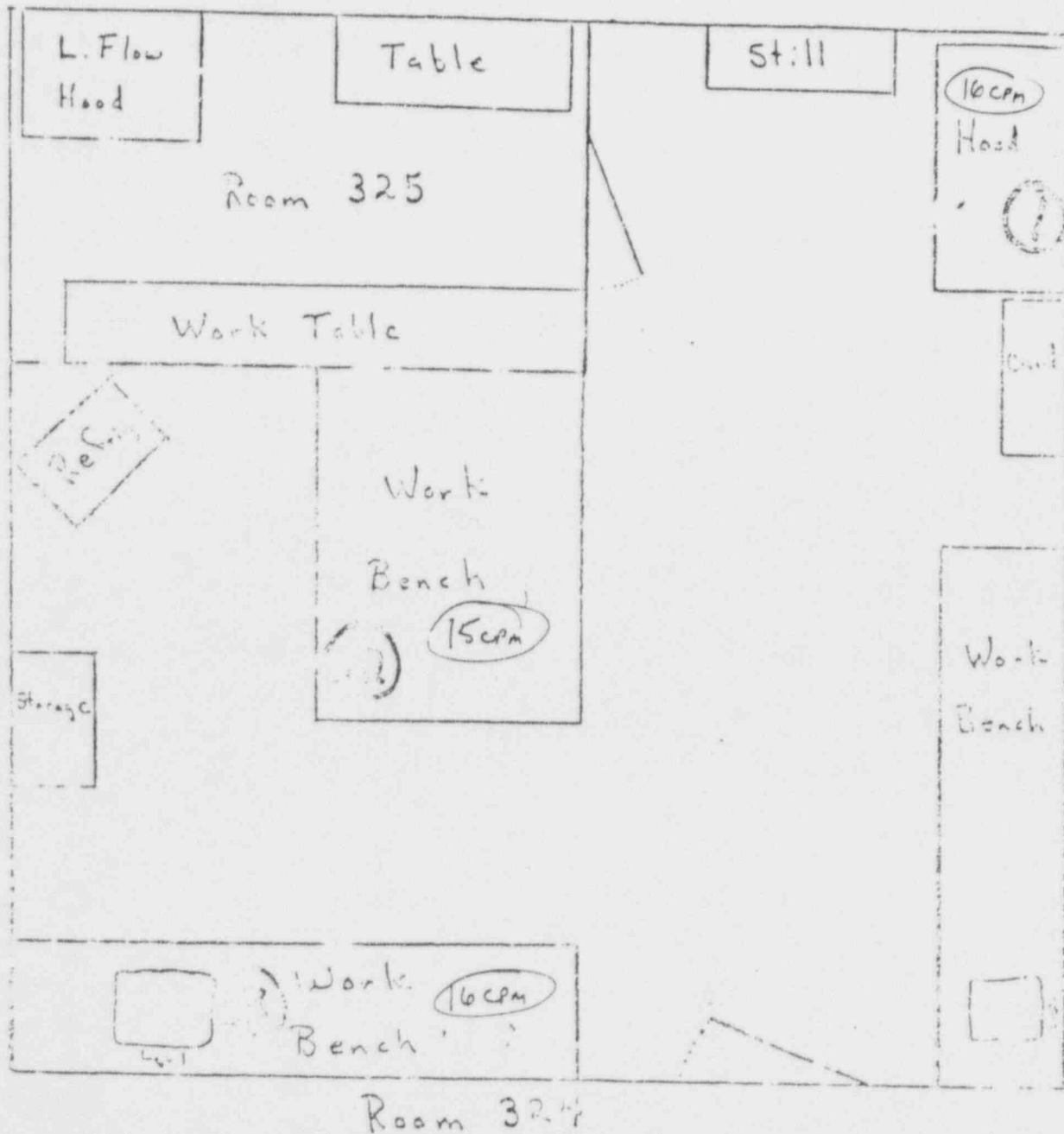
2/9/95

ROOM:

324

BUILDING:

HSB-45



OK.

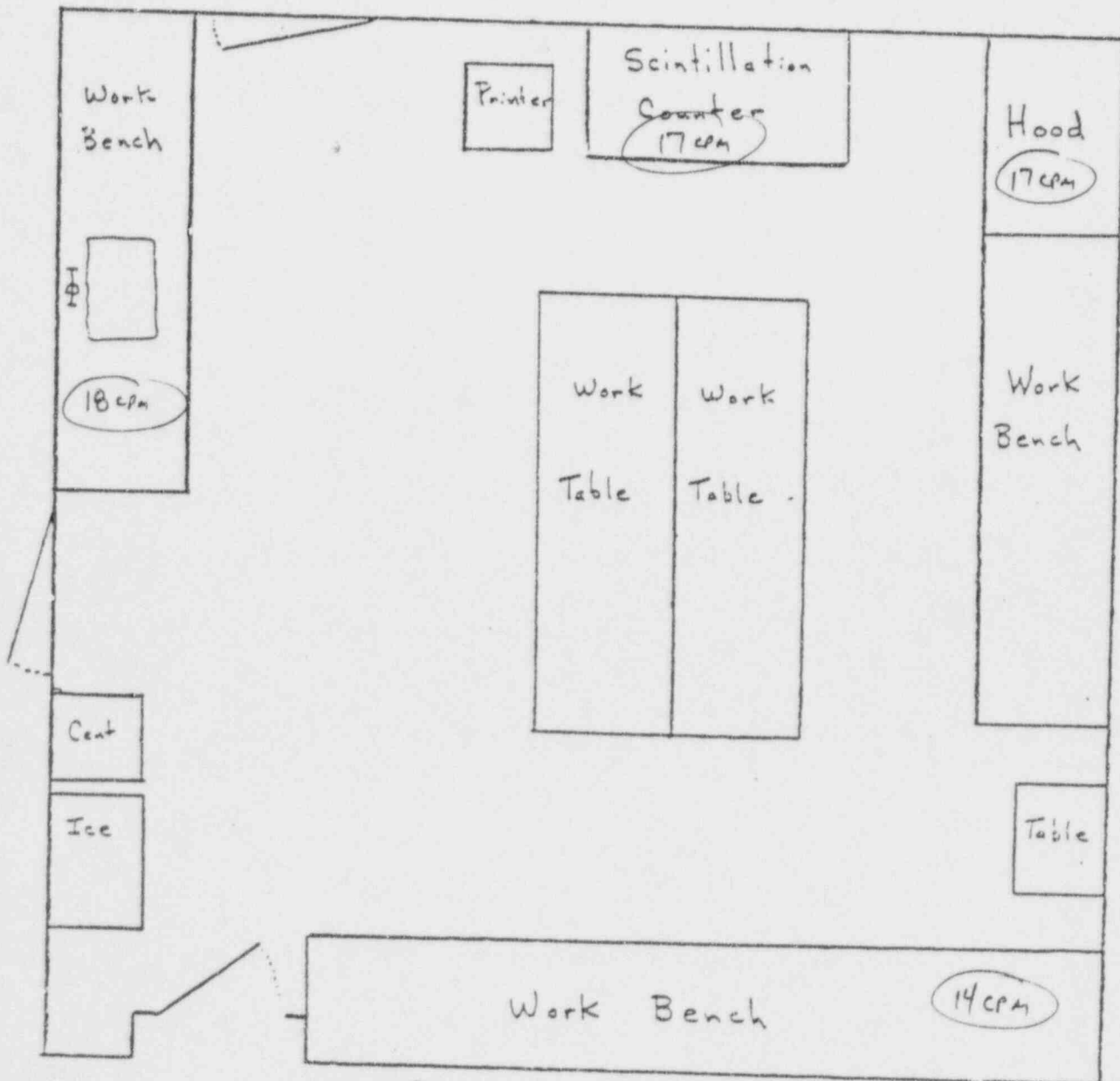
John T. Schaff

SWIPE TEST REPORT

DATE: 2/9/95

ROOM: 329

BUILDING: Health Science Bldg.



OK.

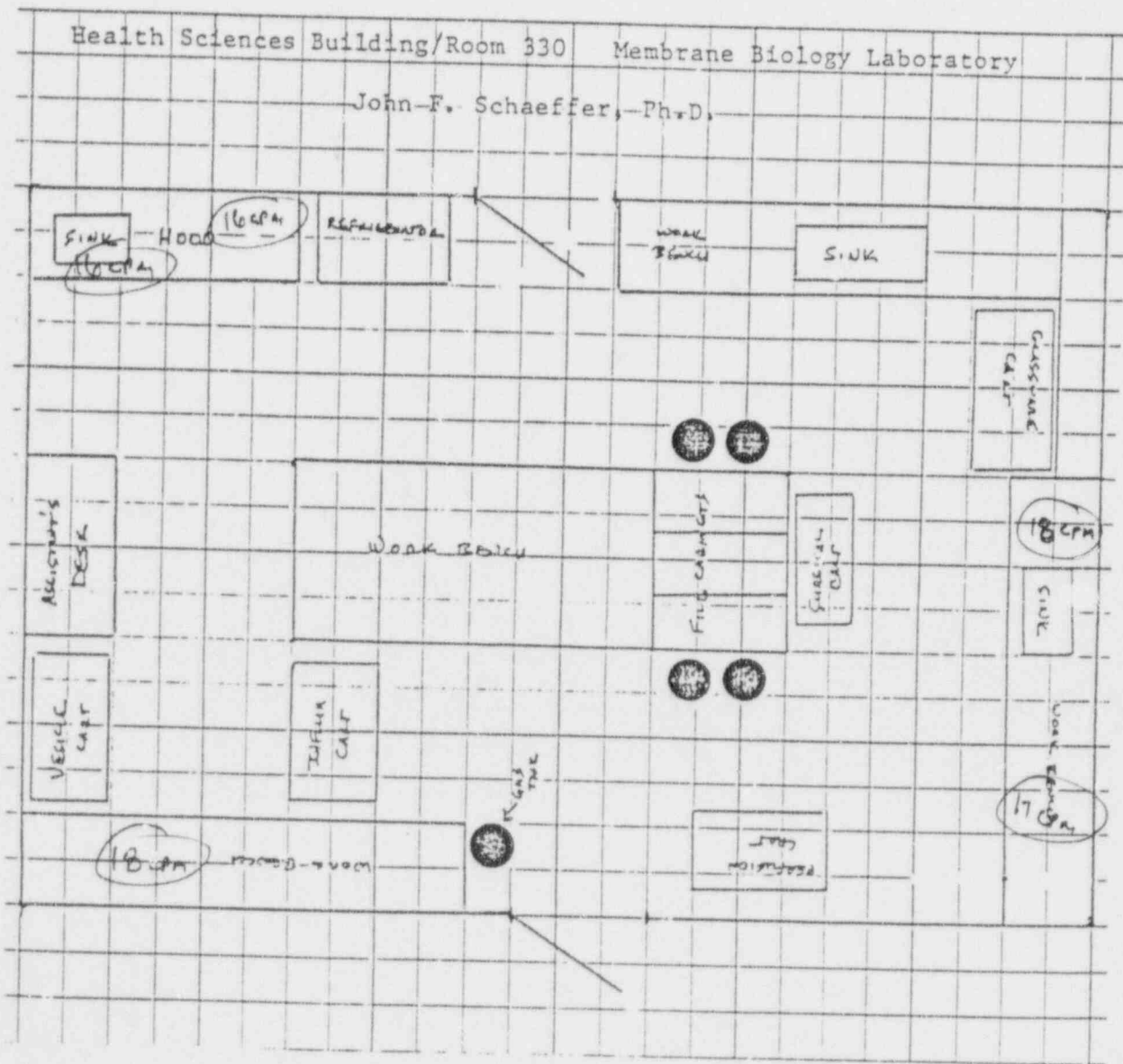
Room 329

SIGNATURE: John F. Schunff

SWIPE TEST REPORT

DATE: 2/9/95

ROOM: 330 - Health Science Bldg.



OK.

SIGNATURE:

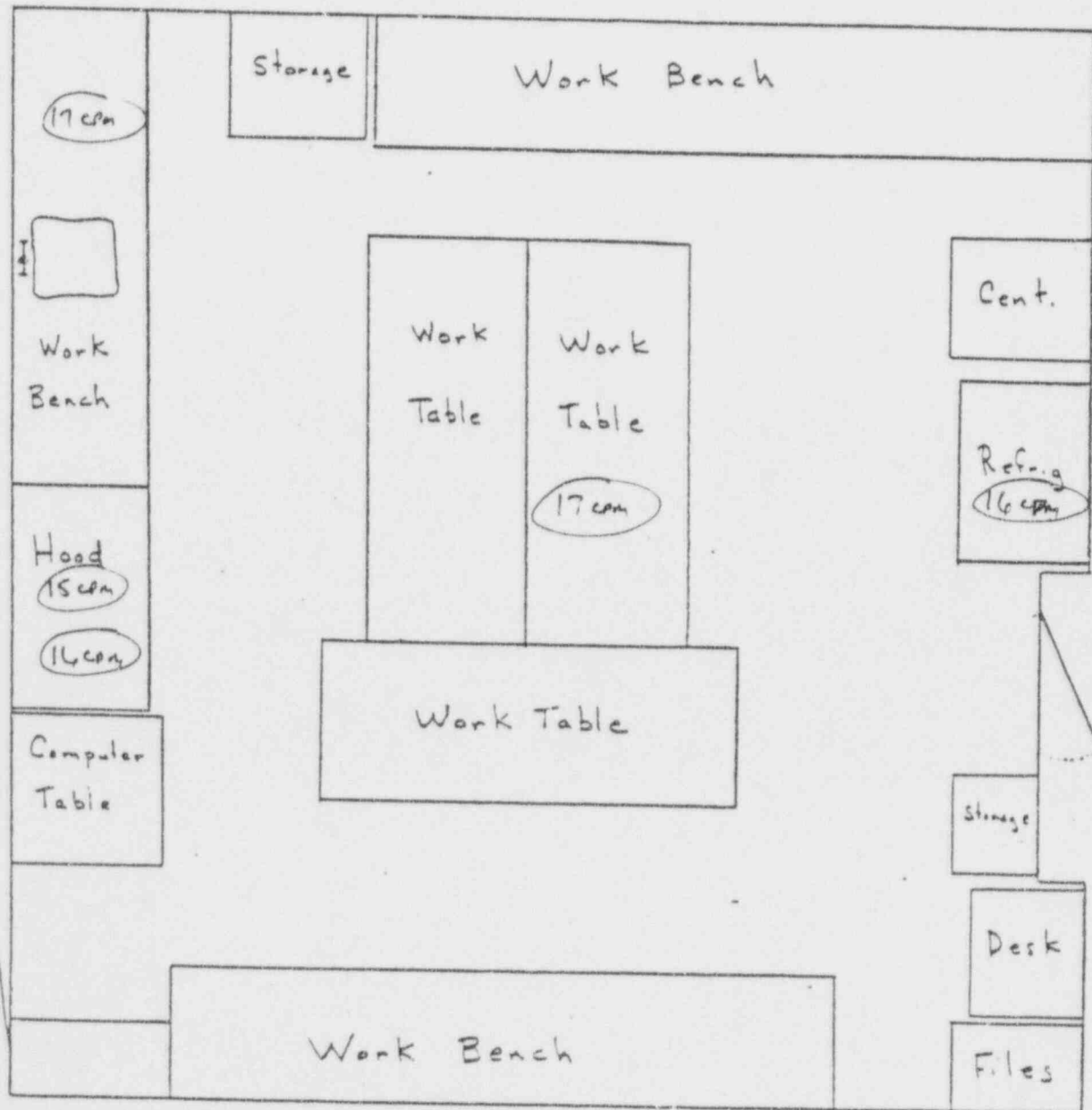
John F. Schaeff

SWIPE TEST REPORT

DATE: 2/9/95

ROOM: 331

BUILDING: Health Science Bldg.



OK

Room 331

SIGNATURE: John F. Schupp

SWIPE TEST REPORT

DATE: 2/9/95

ROOM: 332

BUILDING: Health Science Bldg.



Room 332

OK.

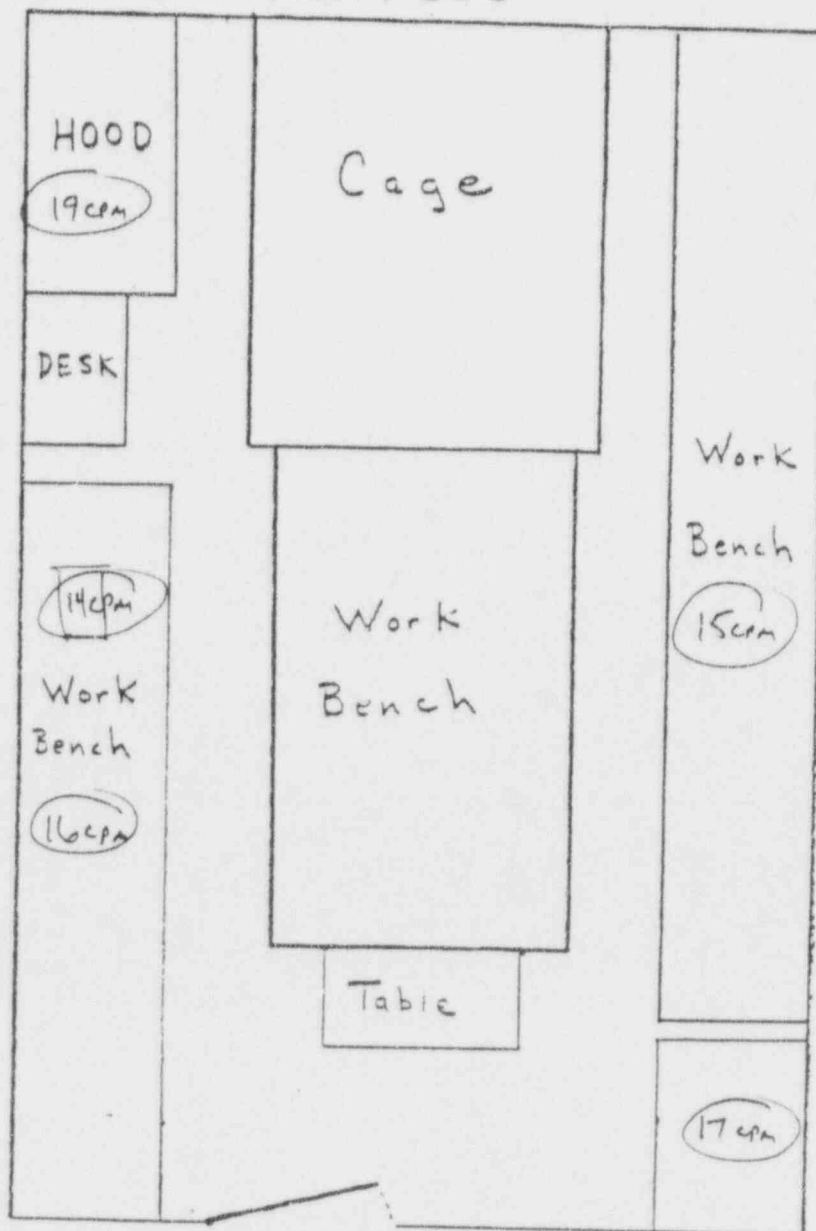
SIGNATURE: _____

John F. Schaff

SWINE TEST REPORT

DATE: 2/9/95ROOM: 335BUILDING: Health Science Bldg.

Room 335



OK

SIGNATURE: John F. Schuff

DEC 09 1996

John F. Schaeffer, Ph.D.
Radiation Protection Officer
Indiana University School of Medicine
Evansville Center for Medical Education
8600 University Boulevard
Evansville, IN 47712

Dear Dr. Schaeffer:

We have received your letter dated September 17, 1996, requesting the deletion of the Medical Education Building and the Health Sciences Building from your byproduct materials License No. 13-15734-01. In order to release the facilities, the NRC needs that following additional information:

1. Attachment 1 contains very recent guidance outlining the information that the NRC needs to complete a facility decommissioning review. Please provide the information requested in Items 1 through 12 keeping in mind the following items also.
2. Please confirm that you have removed all radioactive materials including sealed check sources and waste from the two locations. Provide the date that you removed the last radioactive material. Provide the dates that the close-out surveys were actually performed.
3. Your close-out surveys did not include a survey for ambient exposure rates. Therefore, perform and/or submit the results of exposure rate measurements to show that all sources of radioactive material were removed and fixed contamination does not exceed the release criteria listed in the attachment entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material". Please address Items 5, 6, and 7 of Attachment 1.
4. After reviewing previous license amendment documents, it appears that certain labs were authorized for radionuclide use but were not included in the surveys submitted in your letter dated September 17, 1996. Those labs are:

Health Sciences Building: Rooms 318, 333, 334A-D, and 325.

Medical Education Building: Rooms 7A, 24, 8, 10, 11, and 17.

Please include these locations in your removable contamination and exposure rate surveys if radionuclides were used there at any time. If radionuclides were never used in these locations, please so state.

5. The contamination wipe test results submitted in your letter dated September 17, 1996, were in units of cpm (counts per minute) and an efficiency factor was not provided. Please submit the results in units of dpm (disintegrations per minute).
6. In addition, the license authorized multiple radionuclides, some gamma emitters, some beta emitters. However, it appears that you surveyed for H-3 only. The liquid scintillation counter printout you submitted was not legible in some areas and channel numbers could not be read. Therefore, please address how you performed surveys to detect radionuclides other than H-3. Submit the results of surveys showing radiation levels for all radionuclides that were used.

Review of your request will continue upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 301916.

If you have any questions or would like to discuss any of these items, please feel free to contact me at (708) 829-9822.

Sincerely,

Original Signed By
Evelyn R. Matson
Health Physicist
Nuclear Materials Licensing Branch

License No. 13-15734-01
Docket No. 030-09673

Enclosures:

1. Attachment 1, "Required Information for the Decommissioning and Termination of Licensed Facilities"
2. 10 CFR Part 30
3. "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material"

DOCUMENT NAME: M:\03009673

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

| | | | | | | | | | |
|--------|--------------|--|--|--|--|--|--|--|--|
| OFFICE | DNMS/RIII | | | | | | | | |
| NAME | ERMATSON:brt | | | | | | | | |
| DATE | 12/7/96 | | | | | | | | |

OFFICIAL RECORD COPY

UNITED STATES NUCLEAR REGULATORY COMMISSION
REGION III
CONVERSATION RECORD

(X) TELEPHONE (X) OUTGOING () INCOMING () CONVERSATION

TIME: 11 am

DATE: 2/3/97

NAME OF PERSON(S) CONTACTED:

ORGANIZATION:

TELEPHONE NO.:

Dr. Schaeffer

Indiana U. School of Medicine

SUBJECT:

Control No. 301916

SUMMARY:

Licensee failed to respond to my request dated December 6, 1996 for additional information. Dr. Schaeffer stated he needed an extension to gather the necessary information. I suggested that since this was so overdue, that I void the request at this time and he could then provide the information at some future date and reopen the request. I informed him to submit the information requested in my deficiency letter dated December 9, 1996 and to state his reply was additional information to control no. 301916. He stated he was agreeable to this approach.

ACTION REQUIRED:

Void 301916

ACTION TAKEN:

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

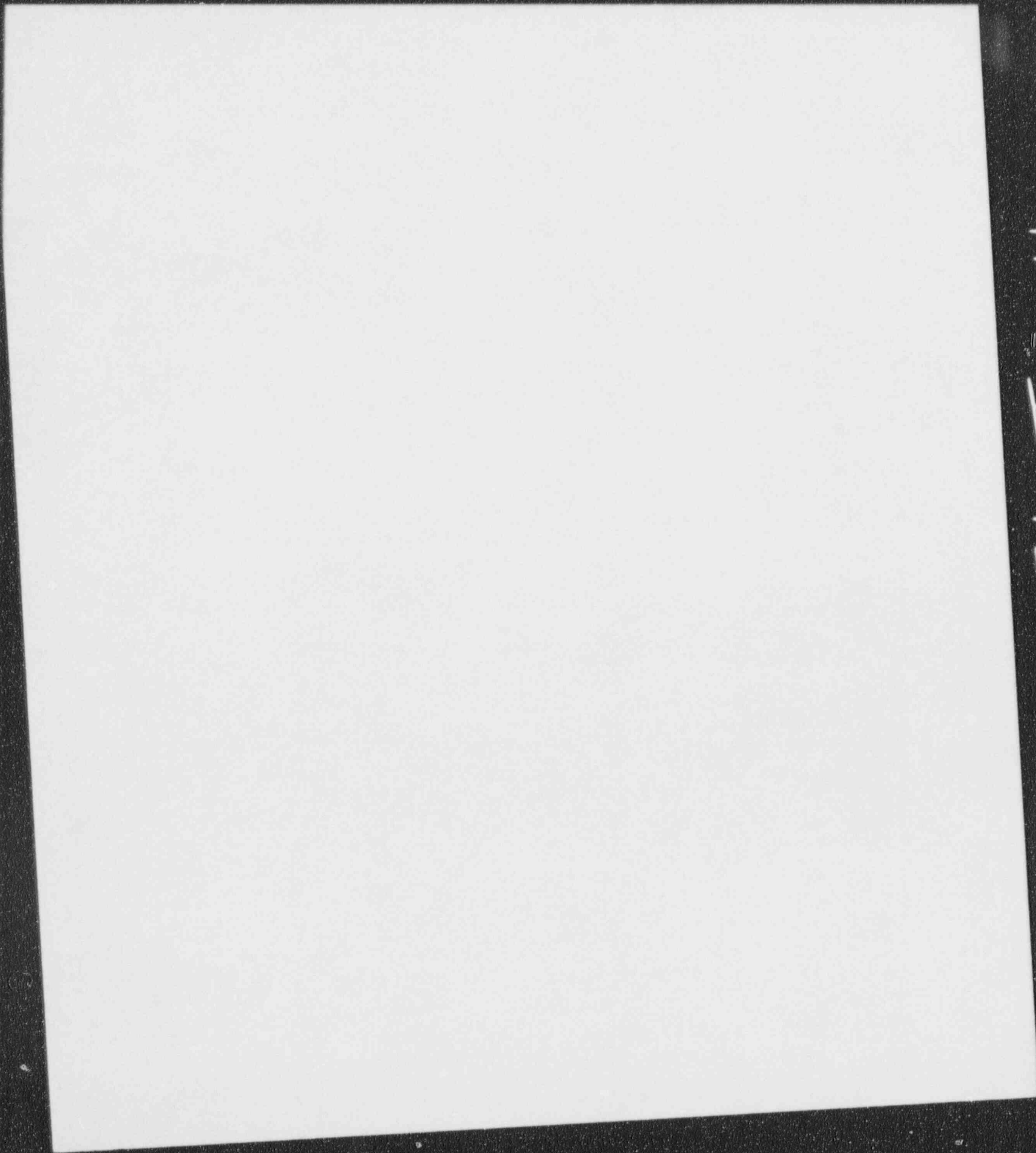
DATE

Eveyn R. Matson

630-829-9822



2/3/97





UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

October 8, 1996

John F. Schaeffer, Ph.D.
Radiation Safety Officer
Indiana University School of Medicine
Evansville Center for Medical Education
8600 University Boulevard
Evansville, IN 47712

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated 09/17/96)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License ☒ Amendment ☐ Renewal
☐ Termination ☐ Auth User (Amendment not required)
☐ Other _____

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 301916
License No. 13-15734-01