
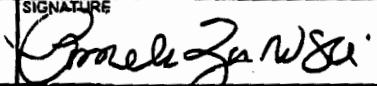


NRC FORM 314 (02-2017) 10 CFR 30.38(j)(1); 40.42(j)(1); 70.38(j)(1); and 72.64(k)(5)(1)(i)	 U.S. NUCLEAR REGULATORY COMMISSION CERTIFICATE OF DISPOSITION OF MATERIALS	APPROVED BY OMB: NO. 3150-0028 <small>Complied burden per response to comply with this mandatory collection request: 30 minutes. This estimate is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (7-5753), U.S. Nuclear Regulatory Commission, Washington, DC 20540-0001 or by e-mail to InfoCollection.Resource@nrc.gov and to the Desk Officer, Office of Information and Regulatory Affairs, NEOD-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>	EXPIRES: 02/29/2020				
LICENSEE NAME AND ADDRESS Mary Lou Caspers, PhD University of Detroit Mercy 4001 W. McNichols Rd Detroit, MI 48221	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">LICENSE NUMBER 21-00241-09</td> <td style="width:50%;">DOCKET NUMBER 030-14288</td> </tr> <tr> <td colspan="2">LICENSE EXPIRATION DATE June 30, 2018</td> </tr> </table>	LICENSE NUMBER 21-00241-09	DOCKET NUMBER 030-14288	LICENSE EXPIRATION DATE June 30, 2018			
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LICENSE EXPIRATION DATE June 30, 2018							
A. LICENSE STATUS (Check the appropriate box) <input type="checkbox"/> This license has expired. <input checked="" type="checkbox"/> This license has not yet expired; please terminate it.							
B. DISPOSAL OF RADIOACTIVE MATERIAL <i>(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)</i> The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:							
<input type="checkbox"/> 1. No radioactive materials have ever been procured or possessed by the licensee under this license.							
<input checked="" type="checkbox"/> 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner.							
<input type="checkbox"/> a. Transfer of radioactive materials to the licensee listed below:							
<input checked="" type="checkbox"/> b. Disposal of radioactive materials:							
<input checked="" type="checkbox"/> 1. Directly by the licensee: Mary Lou Caspers, PhD							
<input type="checkbox"/> 2. By licensed disposal site:							
<input type="checkbox"/> 3. By waste contractor.							
<input checked="" type="checkbox"/> c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.							
C. SURVEYS PERFORMED AND REPORTED							
<input checked="" type="checkbox"/> 1. A radiation survey was conducted by the licensee. The survey confirms:							
<input checked="" type="checkbox"/> a. the absence of licensed radioactive materials							
<input checked="" type="checkbox"/> b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.							
<input checked="" type="checkbox"/> 2. A copy of the radiation survey results:							
<input checked="" type="checkbox"/> a. is attached; or <input type="checkbox"/> b. is not attached (Provide explanation); or <input type="checkbox"/> c. was forwarded to NRC on: _____ Date: _____							
<input type="checkbox"/> 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and							
<input type="checkbox"/> a. The results of the latest leak test are attached; and/or <input type="checkbox"/> b. No leaking sources have ever been identified.							
The person to be contacted regarding the information provided on this form.							
NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS				
Mary Lou Caspers, PhD	Professor of Biochemistry	313-993-1196	casperml@udmercy.edu				
Mail all future correspondence regarding this license to Mary Lou Caspers							
C. CERTIFYING OFFICIAL I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT							
PRINTED NAME AND TITLE	SIGNATURE		DATE				
Pamela Zarkowski, PhD			5/21/18				
WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.							

RECEIVED MAY 22 2018

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Docket #: 030-14288

HISTORICAL SITE ASSESSMENT – RADIONUCLITIDE PURCHASES**1984 – PRESENT**

Material	quantity	Purchase date	Areas of Use	Dates of Usage	Amount per experiment	Final disposal
¹⁴ C -Oxalic Acid	0.05 mCi	December 1976	Never opened	Never used	NA	May 15, 2018
³ H-ouabain	1.0 mCi	February 1992	Chemistry room 207	February 1992-2003	≤ 1.0 µCi per Experiment Approximately 700-900 experiments	May 15, 2018*
³ H Hemicholinium	250 µCi	March 1994	Chemistry room 207	March 1994-1996	≤ 2.5 µCi Approximately 40-50 experiments	May 15, 2018*
³² P-adenosine-5'-Triphosphate	250 µCi	September 1994	Chemistry room 207	Sept-Dec 1994	≤ 1 µCi per experiment. approximately 30 experiments	1997**
³ H-ouabain	1.0 mCi	June 2003	Chemistry room 207	June 2003-2014	≤ 1.0 µCi per Experiment Approximately 700-900 experiments	May 15, 2018*

* After each experiment, radioactive material was disposed of into the sanitary sewer based on the amount used (which was below the threshold for tritium disposal).

** Vials containing ³²P were stored in a cabinet for several years until the cpm of the vials equaled the background.

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FINAL LABORATORY INSPECTION ROOM 207

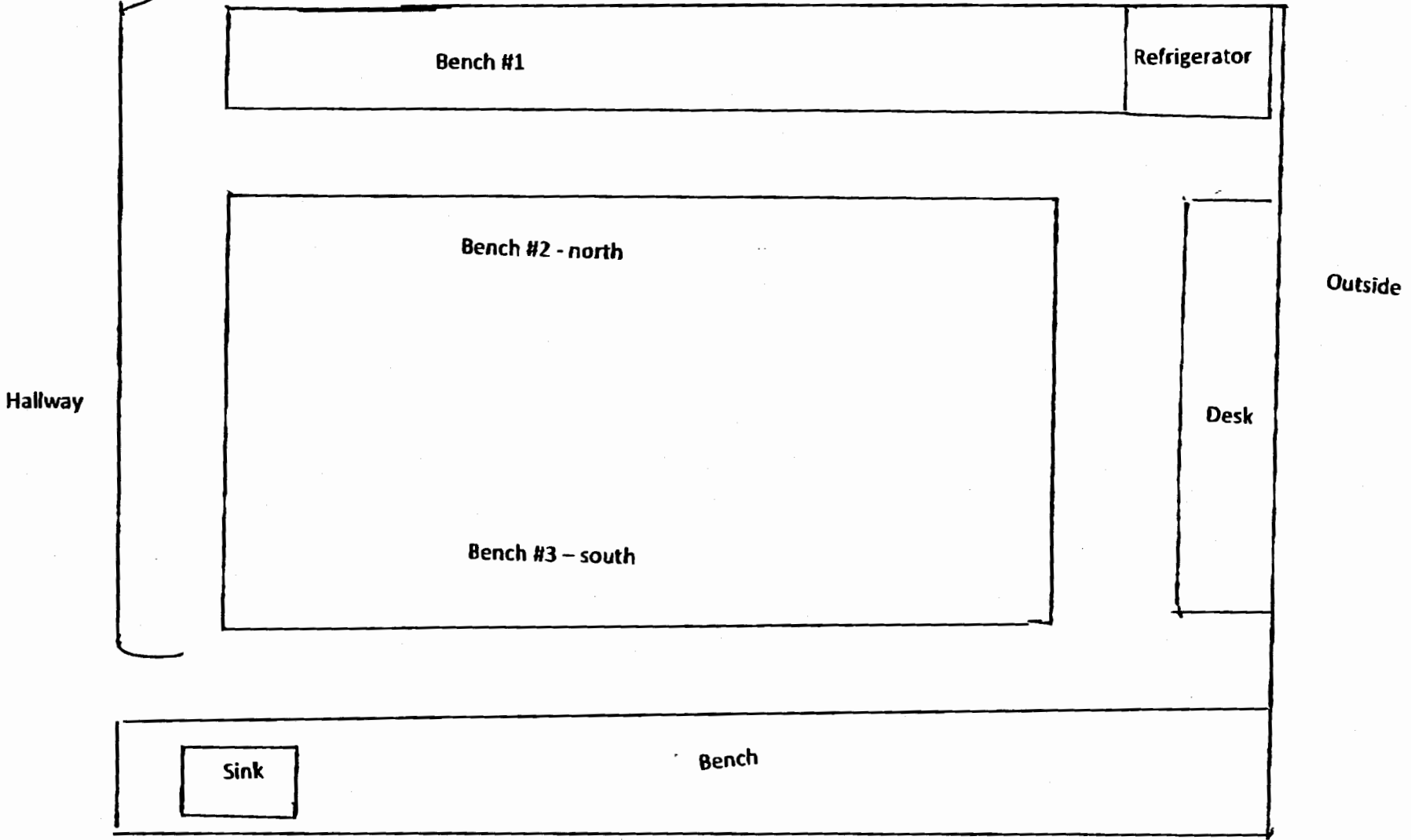
A final laboratory inspection was done on May 18, 2018. Areas in the lab were wiped with moist filter paper according to the table below. Scintillation fluid was added to vials containing the filter paper and the vials were placed in a scintillation counter to determine if ^3H or ^{14}C was present. **No swipes showed the presence of either of these isotopes.**

Test to Determine the Presence of ^3H or ^{14}C in Laboratory Room 207

<u>Wet Swipe #</u>	<u>Location</u>
1	Blank – filter paper moistened with water – no swipe performed
2	Refrigerator Bin where isotopes were stored
3	Lab Bench Top #1 – side bench north
4	Lab Bench Top #2 – center bench north
5	Lab Bench Top #3 – Center bench south
6	Floor at refrigerator
7	Floor at Bench #1
8	Floor at Bench #2
9	Floor at Bench #3
10	Sink where isotopes were disposed of on May 15, 2018
11	Floor at sink

LABORATORY ROOM 207 DIAGRAM

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RESULTS FROM SCINTILLATION COUNTER FOR LABORARY ROOM 207 INSPECTION
(Raw Data from Scintillation Counter Print-off is also Attached)

<u>Wet Swipe #</u>	<u>^3H (cpm)</u>	<u>^{14}C (cpm)</u>
1	45	62
2	30	64
3	28	71
4	25	48
5	21	54
6	27	53
7	33	57
8	19	64
9	25	48
10	25	60
11	18	41

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JUL 1967 2010 17054

ISOTOPE 1: CH WERFOR: 0.00 FACTOR: 1.000000 BKG. SUB:

3 H

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Fax Cover Sheet

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Department of Chemistry and Biochemistry
University of Detroit Mercy
4001 W. McNichols Road
Detroit, MI 48221-3038

FAX: 313-993-1144

TO: Ms. CASANDRA FRAZIER
630-829-9830

FROM: MARY LOU CASPERS

LICENSE 21-00241-09

Docket # 030-14288

phone: 313-993-1196

e-mail: CASPERML@UDMERCY, EDU

MESSAGE: Attached please find Form 214 plus the historical Radionuclide Purchases & disposal and the results of the final lab inspection results. We are requesting termination of this license. Please let me know if additional information is requested.

Thank you, M. X Caspers

Date: May 22, 2018

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