



June 27, 2011

Materials Licensing Section
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Reference: Amendment of our NRC License #21-24683-01

Dear Sir or Madam,

We would like to renew our current license and incorporate the following g changes in the following section of our original application:

Section 7.2: Authorized users for non-medical use – Removal of Carolynne Geragosian and Jeffrey K. Johnson, addition of Dr. Dan Bochar, Dr. Rana Sidhu, Mr. Levi Blazer, Mr. Jim Corrigan, and Mr. Daniel Tew. Ms. Geragosian is no longer with our company. Dr. Johnson has moved to management and is no longer working in the laboratory. Further information regarding the addition of Dr. Bochar, Dr. Sidhu, Mr. Blazer, Mr. Corrigan and Mr. Tew is attached to this letter.

We recently paid our annual fee. It is my understanding that no additional fee is due at this time. Please let me know if this is not correct.

If you have any questions regarding this amendment, please contact me at 1-800-364-9897.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Meade".

Elizabeth Meade, Ph.D.
Radiation Safety Officer
Cayman Chemical Company

RECEIVED JUN 30 2011

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108 USA

toll free 800.364.9897
phone 734.971.3335
fax 734.971.3640

www.caymanchem.com
cayman@caymanchem.com

(3-2009)
10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), 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.

APPLICATION FOR MATERIALS LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

<p>1. THIS IS AN APPLICATION FOR (Check appropriate item)</p> <p><input type="checkbox"/> A. NEW LICENSE</p> <p><input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____</p> <p><input checked="" type="checkbox"/> C. RENEWAL OF LICENSE NUMBER <u>21-24683-01</u> <i>Please note changes</i></p>	<p>2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)</p> <p><i>Cayman Chemical Company</i> <i>1180 East Ellsworth Rd.</i> <i>Ann Arbor, MI 48108</i></p>
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<p>3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED</p> <p><i>Cayman Chemical Company</i> <i>1180 East Ellsworth Rd.</i> <i>Ann Arbor, MI 48108</i></p>	<p>4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION</p> <p><i>Elizabeth Meade</i></p> <p>TELEPHONE NUMBER</p> <p><i>734-971-3335</i></p>
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SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

<p>5. RADIOACTIVE MATERIAL</p> <p>a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.</p>	<p>6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.</p>
<p>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.</p>	<p>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.</p>
<p>9. FACILITIES AND EQUIPMENT.</p>	<p>10. RADIATION SAFETY PROGRAM.</p>
<p>11. WASTE MANAGEMENT.</p>	<p>12. LICENSE FEES (See 10 CFR 170 and Section 170.31)</p> <p>FEE CATEGORY <i>Renewal - no change</i> AMOUNT ENCLOSED \$ <i>0.00</i></p>

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 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.

<p>CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE</p> <p><i>Elizabeth Meade, Radiation Safety Officer</i></p>	<p>SIGNATURE</p> <p><i>Elizabeth Meade</i></p>	<p>DATE</p> <p><i>6/27/11</i></p>
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FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

ATT 7.2.8

Cayman Chemical Company
Radiation Authorized User Form

Name: Daniel Bochar

Title: Lead Scientist

Date: 06/17/2011

1. Training

<u>Type</u>	<u>Location</u>	<u>Duration</u>	<u>Content</u>
Orientation/training class	University of Michigan	2 hrs	A,B,C,D
Annual refresher class	University of Michigan	8 x 30 min	A,B,C,D
Orientation/training class	University of Pennsylvania	2 hrs	A,B,C,D
Annual refresher training	University of Pennsylvania	4 x 30 min	A,B,C,D
Laboratory-specific training	Purdue University	2 hrs	A,B,C,D
Laboratory-specific training	University of Illinois	2 hrs	A,B,C,D

Content Code:

- (A) Principles and practice of radiation protection
- (B) Radioactivity measurements, standardization, and monitoring techniques and instruments
- (C) Mathematics and calculations basic to the use and measurement and radioactivity
- (D) Biological effects of radiation

2. Experience with radiation (actual use)

<u>Isotope</u>	<u>mCi used at one time</u>	<u>Location</u>	<u>Clock Hr.</u>	<u>Type of use</u>
^3H	10	University of Michigan University of Pennsylvania Purdue University University of Illinois	250 hrs	Enzymatic assays
^{14}C	10	University of Michigan University of Pennsylvania	50 hrs	Enzymatic assays

ATT 7.2.8 (cont).

Daniel Bochar

Purdue University

³² P	5	University of Michigan	250 hrs	Southern blotting
		University of Pennsylvania		Northern blotting
		Purdue University		Enzymatic assays
		University of Illinois		
³³ P	1	Purdue University	50 hrs	DNA sequencing
³⁵ S	5	University of Pennsylvania	500 hrs	DNA sequencing
		Purdue University		Protein labeling

ATT 7.2.9

Cayman Chemical Company
Radiation Authorized User Form

Name: Rana Sidhu

Title: Manager Biochemistry, Protein Expression Group

Date: 06/16/2011

1. Training

<u>Type</u>	<u>Location</u>	<u>Duration</u>	<u>Content</u>
Short course	University of Michigan	4 hrs	A,B,C,D
Short course	Argonne National Laboratory	1 hr	A,B,D
Short course	University of Manitoba	4 hrs	A,B,C,D
Short course	University of Manitoba	4 hrs	A,B,C,D

Content Code:

- (A) Principles and practice of radiation protection
- (B) Radioactivity measurements, standardization, and monitoring techniques and instruments
- (C) Mathematics and calculations basic to the use and measurement and radioactivity
- (D) Biological effects of radiation

2. Experience with radiation (actual use)

<u>Isotope</u>	<u>mCi used at one time</u>	<u>Location</u>	<u>Clock Hr.</u>	<u>Type of use</u>
³ H	1	University of Michigan	200 hrs	Enzyme assays
¹⁴ C	1	University of Michigan	800 hrs	Enzyme assays
³² P	1	University of Manitoba	600 hrs	In-gel assays
¹⁴ C	1	University of Michigan	200 hrs	Enzyme assays

ATT 7.2.10

Cayman Chemical Company
Radiation Authorized User Form

Name: Levi Blazer

Title: Scientist I, Molecular Screening

Date: 06/17/2011

1. Training

<u>Type</u>	<u>Location</u>	<u>Duration</u>	<u>Content</u>
Orientation/training class	University of Michigan	4 hrs	A,B,C,D
Annual refresher training	University of Michigan	4 x 30 min	A,B,C,D

Content Code:

- (A) Principles and practice of radiation protection
- (B) Radioactivity measurements, standardization, and monitoring techniques and instruments
- (C) Mathematics and calculations basic to the use and measurement and radioactivity
- (D) Biological effects of radiation

2. Experience with radiation (actual use)

<u>Isotope</u>	<u>mCi used at one time</u>	<u>Location</u>	<u>Clock Hr.</u>	<u>Type of use</u>
^3H	0.05	University of Michigan	15 hrs	Radioligand binding assays
^{32}P	0.25	University of Michigan	100 hrs	GTPase assays

ATT 7.2.11

Cayman Chemical Company
Radiation Authorized User Form

Name: Jim Corrigan

Title: Lab Supervisor

Date: 06/17/2011

1. Training

<u>Type</u>	<u>Location</u>	<u>Duration</u>	<u>Content</u>
Orientation/training class	Ferris State University	2 hrs	A,B,C,D
Laboratory-specific training	Cayman Chemical Company	4 hr	A,B,C,D

Content Code:

- (A) Principles and practice of radiation protection
- (B) Radioactivity measurements, standardization, and monitoring techniques and instruments
- (C) Mathematics and calculations basic to the use and measurement and radioactivity
- (D) Biological effects of radiation

2. Experience with radiation (actual use)

<u>Isotope</u>	<u>mCi used at one time</u>	<u>Location</u>	<u>Clock Hr.</u>	<u>Type of use</u>
^3H	0.01	Cayman Chemical Company	10 hrs	Enzyme assay

ATT 7.2.12

Cayman Chemical Company
Radiation Authorized User Form

Name: Daniel James Tew

Title: Research Scientist I, Immunoassay Department

Date: 06/17/2011

1. Training

<u>Type</u>	<u>Location</u>	<u>Duration</u>	<u>Content</u>
Radiation Training	Cayman Chemical Company	3 hrs	A,B,C,D

Content Code:

- (A) Principles and practice of radiation protection
- (B) Radioactivity measurements, standardization, and monitoring techniques and instruments
- (C) Mathematics and calculations basic to the use and measurement and radioactivity
- (D) Biological effects of radiation

2. Experience with radiation (actual use)

<u>Isotope</u>	<u>mCi used at one time</u>	<u>Location</u>	<u>Clock Hr.</u>	<u>Type of use</u>
^3H	1	Cayman Chemical Company	100 hrs	Radioligand binding assays

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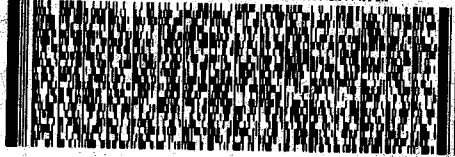
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TO MATERIALS LICENSING SECTION
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LISLE IL 60532.
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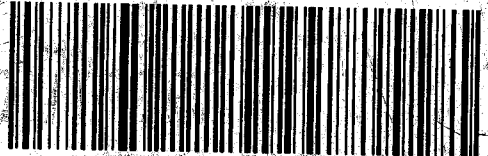
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