Mallinckrodt

February 22, 2012

United States Nuclear Regulatory Commission Region III Nuclear Materials Licensing Branch 2443 Warrenville Road, STE 210 Lisle, IL 60532-4352

RE: License No: 24-17450-01, Amendment 30 Request

Mallinckrodt, LLC requests an amendment to license 24-17450-01 to increase possession limits as follows;

Material	Chemical and/or physical form	Maximum Amount
Actinium-225	Any	50 millicuries
Radium- 224	Any	50 millicuries
Radium- 225	Any	50 millicuries

Authorized use will be for research and development as defined in 30.4, Title 10, Code of Federal Regulations, Part 30, testing and development of alpha radiotherapeutic treatment agents.

Please feel free to contact me at (314)654-8563 or (314)713-5276 if you have any questions or need further information.

Thank you,

Sincerely,

John Snider

Radiation Safety Officer

gen d

NRC FORM 313

10 CFR 30, 32, 33, 34, 35, 36, 39, and 40 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: (03/31/2012)

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 Information 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

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:

APPLICATION FOR MATERIALS LICENSE

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 1600 E. LAMAR BOULEVARD ARLINGTON, TX 76011-4511

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.

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code) 1. THIS IS AN APPLICATION FOR (Check appropriate item) A. NEW LICENSE Mallinckrodt LLC CO: John Snider 24-17450-01 B. AMENDMENT TO LICENSE NUMBER 675 McDonnell Blvd Hazelwood, Mo 63042 C. RENEWAL OF LICENSE NUMBER 3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION. Mallinckrodt LLC John Snider CO: John Snider TELEPHONE NUMBER 675 McDonnell Blvd Hazelwood, Mo 63042 (314) 654-8563

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.

- 5 RADIOACTIVE MATERIAL
 - a. Element and mass number, b. chemical and/or physical form; and c. maiximum amount which will be possessed at any one time.
- INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR
- TRAINING EXPERIENCE
- 9. FACILITIES AND EQUIPMENT.
- 11. WASTE MANAGEMENT

- 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED
- 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

land a Roberts

- 10. RADIATION SAFETY PROGRAM.
- 12. LICENSE FEES (See 10 CFR 170 and Section 170.31)
 - FEE CATEGORY

AMOUNT ENCLOSED \$

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 CONTANED 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 C RIMINAL 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.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE

SIGNATURE

DATE 22 Feb 2012

Richard Roberts, Ph.D., Sr Director

FOR NRC USE ONLY

TYPE OF FEE

FEE LOG

FEE CATEGORY

AMOUNT RECEIVED

CHECK NUMBER COMMENTS

APPROVED BY

DATE

From: (314) 654-8563 JOHN SNIDER Hornet THC / Mallinckrodt 675 McDonnell Blvd. Hazelwood, MO 63042

Origin ID: ALNA



ActWgt: 1.0 LB CAD: 3742267/INET3250

Ship Date: 22FEB12





BILL SENDER

Materials Licensing Branch
US Nuclear Regulatory Commission R3
2443 WARRENVILLE RD STE 210

LISLE, IL 60532

SHIP TO: (630) 829-9500

Ref# 0080114202866656

Invoice # PO # Dept #

THU - 23 FEB A1 STANDARD OVERNIGHT

TRK# 7980

7980 9012 5058

60532 IL-US ORD





512G1/9F59/A278



- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.