

March 10, 2005

U.S. Nuclear Regulatory Commission
Region I
Nuclear Materials Safety Branch
475 Allendale Road
King of Prussia, PA 19406-1415

03032945

RE: Radioactive Material License #24-04206-01MD (Harrisburg Nuclear Pharmacy)

Please Expedite Licensing Action

Dear License Reviewer:

Please amend the above-referenced radioactive materials license as follows:

- Replace Appendix H of the current license application with the data contained in Attachment A. New, as well as improved existing, unit and bulk dose shielding have been put into service. In addition, we request that future submittals regarding unit and bulk dose shielding be required only if changes to shielding will increase the radiation levels at the surface of the container. All data will be maintained on file and available for inspection.

All primary shields will be shipped in packaging that meets the requirements of Title 49 Code of Federal Regulations.

- Update Appendix G of the current license application with the information provided in Attachment B. In addition, we request that future submittals be limited to changes to labeling that will cause a change to radioactive markings or labeled activity, other than position and size of symbols and wording.

All other items relating to this radioactive material license remain unchanged at this time.

REC'D IN LAT 3/14/2005

136604
NMSS/RGNI MATERIALS-002

Please contact April Chance at (314) 654-7960 if you have any questions and/or require supplemental information regarding this request. Your prompt review and approval of this licensing action is greatly appreciated.

Sincerely,



Kay M. Yoder

Director, Radiation, Environment, Health & Safety – Mallinckrodt Inc.

Attachments

cc: B. Martin, Nuclear Pharmacy Manager (Harrisburg, PA)
B. Means, Radiation Safety Officer (Harrisburg, PA)
A. Chance, Manager, Radiological Affairs (Hazelwood, MO)
J. Schuh, Manager, EHS, Pharmacy Operations (Hazelwood, MO)

**ATTACHMENT A
RADIATION PROFILE DATA**

Nuclide	Maximum Activity per Carrier (mCi)	Carrier	Maximum Radiation Field@ Surface (mR/hr)
Technetium-99m	1000	Syringe	5
Technetium-99m	1500	Vial	2.5
Gallium-67	16	Syringe	65
Gallium-67	30	Vial	20
Thallium-201	9	Syringe	10
Thallium-201	16	Vial	8
Iodine-131	44	Vial	90
Iodine-131	630	Vial	475
Xenon-133	150	Vial	15

**ATTACHMENT B
SAMPLE LABELS**

TC - 99M MYOVIEW (TETROFOSMIN) It em: R499AD Lot: 15386	TC - 99M MYOVIEW (TETROFOSMIN)		
	Procedure: MYOCARDIAL IMAGING		
	Activity: 30 mCi @ 11:30 4 MAR 2005 FRI		
	Vol: 2.01 ml	Use By: 12:40 4 MAR 2005 FRI	Dispensed: 4 MAR 2005 FRI
	Conc: 14.9340 mCi / ml	Issued: 4 MAR 2005 FRI	
	HANOVER CARDIOLOGY, HANOVER, PA		
	310 STOCK STREET SUITE 3 HANOVER, PA 17331		
	License: 37-30718-01	Dr: LAMRENCE S. FREER, M.D.	Rx: 00061789
	MALLINCKRODT (717) 568-8640		
	4400 LEWIS ROAD SUITE A HARRISBURG, PA 17111 RPH: BRANCON C. BAKER		

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MALLINCKRODT/4400 LEWIS ROAD SUITE A
HARRISBURG, PA 17111
(717) 568-8640
Pt: M.D. USE



THE U.S. NUCLEAR REGULATORY COMMISSION HAS APPROVED DISTRIBUTION OF THIS RADIOPHARMACEUTICAL TO PERSONS LICENSED TO USE BY PRODUCT MATERIAL LISTED IN PARAGRAPH 35.100, 200 & 300 OF 10 CFR PART 26 AND TO PERSONS HOLDING AN EQUIVALENT LICENSE ISSUED BY AN AGREEMENT STATE.

Example Unit Dose Labels

TC - 99M SODIUM PERTECHNETATE It em: R005AD Lot: 15349	TC - 99M SODIUM PERTECHNETATE		
	Procedure: FOR RADIOPHARMACEUTICAL USE		
	Activity: 50 mCi @ 12:00 4 MAR 2005 FRI		
	Vol: 1.07 ml	Use By: 01:44 5 MAR 2005 SAT	Dispensed: 4 MAR 2005 FRI
	Conc: 08.40 mCi / ml	Issued: 4 MAR 2005 FRI	
	HOLY SPIRIT HOSPITAL, CAMP HILL, PA		
	ATTN NUCLEAR MEDICINE 503 NORTH 21ST STREET CAMP HILL, PA 17011		
	License: PD: 94361	Dr: HOWARD BRONFMAN	Rx: 00061813
	MALLINCKRODT (717) 568-8640		
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Example Bulk Dose Labels

This is to acknowledge the receipt of your letter/application dated

2/10/2005, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment 24-04206-01 MID There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 136604.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

BETWEEN: : (FOR LFMS USE)
 : INFORMATION FROM LTS
 : -----
 :
 License Fee Management Branch, ARM : Program Code: 02500
 and : Status Code: 0
 Regional Licensing Sections : Fee Category: 3C 2B
 : Exp. Date: 20130430
 : Fee Comments: _____
 : Decom Fin Assur Req'd: N
 : ::

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
 Applicant/Licensee: MALLINCKRODT, INC.
 Received Date: 20050314
 Docket No: 3032995
 Control No.: 136604
 License No.: 24-04206-01MD
 Action Type: Amendment

2. FEE ATTACHED
 Amount:
 Check No.:

3. COMMENTS

Signed *Robert J. Ford*
 Date 3/16/05

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

- 1. Fee Category and Amount: _____
- 2. Correct Fee Paid. Application may be processed for:
 - Amendment _____
 - Renewal _____
 - License _____
- 3. OTHER _____

Signed _____
 Date _____