NRC FORM 313 U. S. NUCLEAR REGULATORY COMMISSION
(5-1999)
10 CFR 30, 32, 33
34, 35, 36, 39 and 40

APPROVED BY OMB: NO. 3150-0120 EXPIRES 08/31/2002

Estimated burden per response to comply with this mandatory information collection request 7.4 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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@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, NRC may not conduct or sponsor, and a person is not required to respond to the information collection.

APPLICATION FOR MATERIAL 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:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

SAM NUNN ATLANTA FEDERAL CENTER
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-8931

IF YOU ARE LOCATED IN:

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

J-6

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, 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 SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

03033773
X

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.

1 THIS IS AN APPLICATION FOR (Check appropriate item)

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 29-30204-01

2 NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

Morris County Cardiology Consultants
8 Tempe Wick Road
Mendham, NJ 07945

3 ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

(1) 8 Tempe Wick Rd., Mendham, NJ 07945
(2) 95 Madison Ave., Ste. 300, Morristown, NJ 07960
(3) 440 US Highway 22 E., Bridgewater Commons 1
Bridgewater Township, NJ 08807

4 NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Jessie Z. Trivino, M.S.

TELEPHONE NUMBER

(201) 996-5720

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. maximum amount which will be possessed at any one time	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS
9. FACILITIES AND EQUIPMENT.	10. RADIATION SAFETY PROGRAM
11. WASTE MANAGEMENT.	12. LICENSEE 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 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.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
Charles A. Shioleno, M.D. - President		27 Apr 05

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		136501
APPROVED BY				DATE	

NMSS/RGNI MATERIALS-002

B. Linearity:

Frequency: 1. At installation and at least quarterly thereafter.
2. After repair, adjustment, or relocation of the dose calibrator.
Source: 30 mCi of Tc-99m in a syringe

Decay Method

- Assay the Tc-99m syringe in the dose calibrator, and subtract background to obtain the net activity in millicuries. Record the date, time to the nearest minute, and net activity on the Linearity Test form. The first assay should be done in the morning at regular time, for example 8 a.m.
- Repeat the assay at about noon, and again at about 4 p.m Continue on subsequent days until the assayed activity is less than 30 microcuries.
- Convert the time and date information you recorded to hours elapsed since the first assay.
- On a sheet of semilog graph paper, label the logarithmic vertical axis in millicuries and label the linear horizontal axis in hours elapsed. At the tope of the graph, note the date and the manufacturer, model number, and serial number of the dose calibrator. Then plot the data.
- Draw a "best fit" straight line through the data points. For the point farthest from the line, calculate its deviation from the value on the line (A-observed-A-line)/(A-line) = deviation.
- If the worst deviation is more than +/-0.05, the dose calibrator should be repaired or adjusted. If this cannot be done, it will be necessary to make a correction table or graph that will allow you to convert from activity indicated by the dose calibrator to "true activity".

Shield Method

Equipment Kit: Calicheck

Kit Calibration:

- Remove any syringe hanger or chamber liner, if necessary, from the dose calibrator.
- Set dose calibrator to measure Tc-99m.
- Adjust zero, background, etc., if applicable. Check zero on each range. If background is not "zero" on all ranges, zero on one range and record values on all other ranges, to add or subtract from fine results when those ranges are used.
- Place calibration source into black tube and insert black tube into dose calibrator carefully with the open end in the upward position. Observe displayed activity.
- Record reading in appropriate positions on the Literacy Check form.
- Place red tube in the dose calibrator over the black tube. Record reading as the appropriate denominator on the form.
- Replace red tube with orange tube. Record.
- Replace orange tube with yellow tube. Record.

- Replace yellow tube with green tube. Record.
- Replace green tube with blue tube. Record.
- Replace blue tube with purple tube. Purple tube must go down over the base pedestal. Record.
- Leaving the purple tube in place, install the red tube over the black central
- Remove the red tube (only) and replace with the orange tube. Record. Continue inserting colored tubes into the purple tube in the same sequence (yellow, green, blue) as directed above but only until the dose calibrator display is 30 uCi. Record each display as you proceed.
- Divide the numerator by the denominator in Column B to determine the calibration factor, and record in Column C. These factors will be used for all future activity linearity tests provided all conditions of the tests are met.

Linearity Procedure:

- Repeat steps 1-14 above recording data in Column B on another Linearity Check form.
- Enter the calibration factors in Column C of the form.
- Multiply the value in Column B by the corresponding value in Column C to determine the product of each entry for Column D. Record values. (Ideally, these values will all be the same.
- Add all products in Column D and divide by the number of entries on Column D to determine the mean value. Multiply the mean by 1.05 and 0.95 as indicated.
- Define the upper and lower limits of +/- 5% variation.
- If all the values in Column D fall between these two limits, your dose calibrator has acceptable activity linearity.
- If any values in Column D fall outside the limits, repeat the study to rule out possible variations in the initial data. Consistent results that are outside the limits that the instrument is exhibiting non-linearity. Corrective action is indicated.